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AIR FORCE CIVIL ENGINEER CENTER

July 29, 2016

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SUBJECT: Final Quarterly Operations and Maintenance Report (2nd Quarter / Calendar Year 2016)
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
Former Griffiss Air Force Base (AFB) Rome, New York
Contract Number FA8903-10-D-8595 / Delivery Order 0014
July 2016

Accompanying this letter please find the "Final Quarterly Operations and Maintenance Report (2nd Quarter / Calendar Year 2016) 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 through June 2016.

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



David S. Farnsworth
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FINAL

QUARTERLY OPERATIONS AND MAINTENANCE 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 2016 / APRIL - JUNE)

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LIST OF ACRONYMS AND ABBREVIATIONS

acfm	actual cubic feet per minute
AF	Air Force
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFRPA	Air Force Real Property Agency
bgs	below ground surface
COC	Contaminant of Concern
CY	calendar year
DCE	dichloroethylene/dichloroethene
EEEPC	Ecology & Environment Engineering, P.C
FPM	FPM Remediations, Inc.
ft	feet
GAC	granular activated carbon
inch w.g.	inch of water gauge
J	The analyte was positively identified, but the quantitation is an estimation.
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	Operation and Maintenance
PCE	tetrachloroethylene/perchloroethylene/tetrachloroethene/perchloroethene
PDI	pre-design investigation
PVC	polyvinyl chloride
ROD	Record of Decision
RSL	Regional Screening Level
RWPCF	Rome Water Pollution Control Facility
sq ft	square feet
SSVM	Sub-Slab Vapor Mitigation
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

TCA	trichloroethane
TCE	trichloroethylene/trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VISL	Vapor Intrusion Screening Level
VMP	Vapor Monitoring Point
VOC	**V**olatile Organic Compound

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. Figure 1-1 depicts the SSVM site locations of Buildings 774, 776, 785 and 786.

This quarterly report has been prepared to document the SSVM systems O&M activities from the 2nd quarter of the calendar year (CY) 2016 including the months of April through June. Additionally, the report contains (as applicable) analytical results and discussion of soil vapor intrusion (SVI) sampling which is performed to evaluate SSVM. O&M was conducted in accordance with the Final Completion Report Sub-Slab Vapor Mitigation Systems (FPM, February 2013).

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2 SITE INFORMATION

2.1 SD-052-02 BUILDING 775 (BUILDINGS 774 AND 776)

Buildings 774 and 776 are located between Phoenix Drive and Patrol Road on Strategic Air Command Hill at the former Griffiss AFB in Rome, NY and are associated with the SD-052-02 Building 775 Site (Figure 2-1). Building 774 is a one-story, 18,990 square feet (sq. ft.) office building, currently occupied by a computer/security firm. The building is occupied on work days from 8 AM to 5 PM by approximately 45 people. Building 774 was built in 1959, but underwent major renovations in 2000. New windows and doors were installed, 36 new air handlers were installed, including new air ducts in ceilings and new cooling towers. The building is built on an 8-inch thick concrete slab, with no basement and most floors are covered with carpeting. Several floor drains exist in bathrooms, janitor closets and the boiler room.

Building 776 is a one-story, 27,410 sq. ft. office building, currently occupied by a software development firm. The building is occupied on work days from 7 AM to 6 PM by approximately 80 people. Building 776 was built in 1959, but underwent major renovations in 2002. New windows, which do not open, and doors were installed, the interior was refinished and most floors were covered with new carpeting. Heat and outdoor air are provided through 43 heat pumps. The building is built on a 3.5 to 6-inch thick concrete slab, with no basement. Several floor drains exist in bathrooms and one crack was observed in the concrete floor near the southeastern entrance door.

The Building 775 Site plume is located downgradient and south of former maintenance facilities in Buildings 774 and 776 and former fuel pump house Building 775. Solvent use in the degreasing room of Building 774 is the suspected source of groundwater trichloroethylene (TCE) contamination (Air Force Real Property Agency [AFRPA], December 2008). Solvent use was widespread in these facilities in the 1950s, 1960s, and early 1970s. The contaminated aquifer is comprised of silty sands with an average thickness extending from 60 feet (ft) below ground surface (bgs) to 120 ft bgs, where shale bedrock is encountered.

2.1.1 Groundwater Investigation

The primary contaminant exceeding New York State Department of Environmental Conservation (NYSDEC) Class GA Groundwater Standards is TCE, with minor detections of 1,1,1-trichloroethane (TCA) and perchloroethylene (PCE). Figure 2-1 shows Building 774 and 776 along with the location of monitoring wells. Monitoring well 775VMW-5, located near the corner of Building 776, is the only well in the maintenance area that contains elevated levels of TCE (99.2 micrograms per liter [µg/L] in September 2004). Most of the Building 775 plume appears to have migrated south toward Landfill 6. In September 2004, the maximum groundwater TCE concentration was 134 µg/L (detected at well 775MW-20, located near the leading edge of the plume near Perimeter Road). TCE was detected at 132 µg/L (in well 775VMW-10), which is also located near the leading edge of the plume near Perimeter Road. TCE in both of these wells was detected in the bottom half of the sandy aquifer in screened intervals from 88 to 120 ft bgs. Nearby well LF6MW-1 is screened in the upper 10 ft of the aquifer and does not have detectable TCE concentrations (FPM, February 2005).

Additional sampling was performed by Ecology & Environment, Inc., and FPM in 2006 as part of the feasibility study for the Building 775 Site. Ecology & Environment Engineering, P.C., (EEEPC) performed pre-design investigation (PDI) activities at the Building 775 Site starting in September 2006. First, two monitoring wells were installed (775MW-27 and -28). The wells were developed and sampled at the end of October into the beginning of November 2006. Results showed that the primary contaminant exceeding NYSDEC Class GA Groundwater Standards was TCE, with minor detections of 1,1,1-TCA and PCE. FPM performed sampling at several other monitoring wells at the Building 775 Site in order to create a complete understanding of current site conditions. The results and conclusions were reported in the Final PDI Report (EEEPC, February 2007).

A remedial action was selected through the On-base Groundwater Record of Decision (ROD) (AFRPA, December 2008) and described in the Remedial Action Work Plan [Parsons, July 2008]. The SVI in Buildings 774 and 776 is being managed as a separate operable unit and therefore is not included in the On-base Groundwater ROD. The remedial action is a groundwater extraction system with a discharge to an off-site treatment facility. The groundwater extraction system is designed to contain the contaminated plume and extract the contaminants from the aquifer which is located surrounding monitoring well 775VMW-5 and presented in Figure 2-1. The start-up date of the groundwater extraction system was January 5, 2009. At this time, FPM also started sampling at Building 775 Site to monitor the performance of the installed remedy. The most recent performance monitoring sampling results have shown TCE detections up to 68 µg/L occurring in 775VMW-5 (FPM, December, 2011). This is a decrease from the September 2004 sampling event, where monitoring results from 775VMW-5 showed a TCE detection of 99 µg/L.

2.1.2 2006 Soil Vapor Intrusion Evaluation

EEEPC also performed an SVI evaluation during the 2006 PDI activities (at Building 775 Site - SD052-02). Sub-slab sampling at the Building 775 Site indicated that chloroform and TCE were present in the sub-slab vapor at Buildings 774 and 776 at concentrations above the Air Force (AF) screening levels (FPM, October 2007). Indoor air sampling at both buildings indicated that these contaminants were present, but at concentrations below the AF screening levels. Sub-slab vapor TCE concentrations ranged from 810 micrograms per cubic meter (µg/m^3) to 1,700 µg/m^3 at Building 774. Sub-slab vapor TCE concentrations ranged from 700 µg/m^3 to 3,000 µg/m^3 at Building 776. The TCE and chloroform detections were likely associated with the groundwater contamination plume located in the area. TCE has been detected in groundwater at concentrations above screening levels, while chloroform has been detected in groundwater at concentrations below screening levels. The SVI evaluation sample locations are shown on Figure 2-1 and corresponding results are provided in Table 2-1.

This SVI survey was reviewed by the AF, NYSDEC, New York State Department of Health (NYSDOH) and United States Environmental Protection Agency (USEPA) and during discussions among these parties, a plan for additional sampling was established, which was then implemented by FPM in April and May 2008 (FPM, April 2008).

2.1.3 Building 774 Soil Vapor Intrusion Results 2008

The indoor air TCE concentrations, reported for Building 774 during the April 2008 sampling round, were two orders of magnitude higher than those reported in the 2006 sampling round. The Building 774 point of contact (the Senior Facilities Engineer) confirmed that renovations, performed in Building 774 between December 2007 and May 2008, included carpet glue removal through solvent use. Indoor and outdoor air samples were recollected in May 2008 in Building 774. The recollected results show that indoor air TCE concentrations were similar to levels reported in 2006 (Table 2-3). Sub-slab vapor results for Building 774 slightly decreased in comparison to 2006 results. The highest result reported in 2008 was 590 µg/m^3 at location 774SSV-2.

In Building 774, the 2008 indoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. The 2008 sub-slab vapor concentrations in Building 774 exceeded AF screening levels.

2.1.4 Building 776 Soil Vapor Intrusion Results 2008

The indoor air TCE concentrations reported for Building 776 during the April 2008 sampling round were comparable to levels reported in 2006. Sub-slab vapor results for Building 776 were lower compared to 2006 results. The highest result reported in 2008 was 110 µg/m^3 at location 776SSV-2.

In Building 776, the 2008 indoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. The 2006 sub-slab vapor concentrations in Building 776 exceeded AF screening levels. Concentrations in 2008 were below screening levels.

2.2 SD-052-01 APRON 2 CHLORINATED PLUME (BUILDINGS 785 AND 786)

Buildings 785 and 786 are located on the SD-052-01 Apron 2 Chlorinated Plume Site at the former Griffiss AFB in Rome, NY (Figure 2-2). Buildings 785 and 786 are 28,251 sq. ft., unheated airplane hangars. The buildings are used for storage by the Griffiss International Airport. The buildings are largely open with several first and second floor offices in the southwest corners of the buildings. Buildings 785 and 786 were built in 1959 and were taken out of service in 1995 after the former Griffiss AFB was closed. The buildings are built on a 13.5 to 14-inch thick unsealed concrete slab, comprised of numerous concrete pads installed together with areas of caulked expansion gaps. Large visible cracks in the concrete floors were repaired. Two large trenches exist in the buildings; one along the large aircraft bay doors on the southeast side of the building, and a smaller trench along the overhead door on the northwest side of the buildings. These trenches contain several cracks that may act as conduits. All heating and air handling equipment is in a state of disrepair and assumed inoperable. The buildings are poorly sealed due to broken windows, doors left ajar and holes observed in the sheet metal outer covering of the building. According to drilling logs from the site, silty sand and gravelly sands are the predominant lithology encountered. Groundwater monitoring wells are currently present in Building 785 and outside in the vicinity of both buildings.

2.2.1 Groundwater Investigation

An extensive groundwater investigation has occurred surrounding Buildings 785 and 786, which is now in the performance monitoring phase. There are three primary contaminants in the plumes that exceed NYSDEC Class GA Groundwater Standards: TCE and its breakdown products cis-1,2-dichloroethylene (DCE) and vinyl chloride (VC). The southern plume is commingled with several petroleum fuel plumes originating from the Apron 2 fueling system. At locations where chlorinated solvents and fuel contaminants are commingled, significant reductive dechlorination is occurring. Therefore, the selected remedy is monitored natural attenuation, as stated in the On-base Groundwater ROD (AFRPA, December 2008). The SVI in Buildings 785 and 786 is being managed as a separate operable unit and therefore is not included in the On-base Groundwater ROD. Monitored natural attenuation was initiated on September 24, 2008. The most recent groundwater sampling results have shown TCE detections up to 25.5 µg/L at monitoring well 782VMW-105B, cis-1-2-DCE detections up to 45.7 µg/L at monitoring well 782VMW-78 and VC detections up to 63.7 µg/L at monitoring well 782VMW-96 (FPM, November 2013).

2.2.2 2006 Soil Vapor Intrusion Evaluation

EEEPC performed an SVI Evaluation in 2006 at the Apron 2 Chlorinated Plume Site. Buildings 782, 783, 784, 785, and 786 were evaluated. No exceedances of the screening levels were reported for Buildings 782, 783, and 784. The Nosedocks 1 and 2 ROD (AFRPA, July 2011) included the selected remedy of No Further SVI action or evaluation for these buildings. Sub-slab sampling at the Apron 2 Chlorinated Plume Site indicated that PCE, TCE and chloroform were present in the sub-slab vapor beneath Buildings 785 and 786 at concentrations above the AF screening levels. Sub-slab vapor sampling results for the 2006 sampling event showed TCE concentrations ranging from 2,300 µg/m^3 to 11,000 µg/m^3 at Building 785. TCE was detected beneath Building 786 at concentrations ranging from 4,700 µg/m^3 to 81,000 µg/m^3 in 2006 and PCE was detected at 2,200 µg/m^3at location 786SSV-1. Indoor air sampling indicated that PCE and TCE were present, but at concentrations below the AF screening levels. No chloroform was reported in the indoor air. TCE was detected consistently in groundwater samples from wells within the groundwater contamination plume. PCE was never detected in groundwater. Chloroform exceedances of the NYSDEC Class GA Groundwater Standards were reported in the March 2009 sampling round in virtually all monitoring wells at Building 786. These exceedances were attributed to a reported water line break which discharged drinking water for an extended period of time at the site. The chloroform exceedances have shown a decreasing trend after the leak was repaired. SVI evaluation sample locations are shown on Figure 2-2 and corresponding results are provided in Table 2-1.

This SVI survey was reviewed by the AF, NYSDEC, NYSDOH, and USEPA and during discussions among these parties, a plan for additional sampling was established, which was then implemented by FPM in April and May 2008 (FPM, April 2008).

2.2.3 Building 785 Soil Vapor Intrusion Results 2008

Sub-slab sampling in 2008 at the Apron 2 Chlorinated Plume Site indicated that chloroform and TCE exceeded screening levels in the sub-slab vapor beneath Building 785. Indoor air sampling indicated that these contaminants were present, but at concentrations below the screening levels. The April 2008 sampling round data were lower at 785SSV-1 (identical to two orders of magnitude lower) than those reported for the 2006 sampling round data. TCE detections ranged from 11 $\mu g/m^3$ to 2,200 $\mu g/m^3$.

2.2.4 Building 786 Soil Vapor Intrusion Results 2008

Sub-slab sampling in 2008 at the Apron 2 Chlorinated Plume Site indicated that PCE and TCE exceeded screening levels in the sub-slab vapor beneath Building 786. Indoor air sampling indicated that these contaminants were present, but at concentrations below the screening levels. Sub-slab vapor sampling results for the April 2008 sampling round were lower but within the same order of magnitude as those reported for the 2006 sampling round. Sub-slab vapor TCE concentrations ranged from 69 $\mu g/m^3$ to 19,000 $\mu g/m^3$. Generally, small petroleum detections were reported in all samples, but none exceeded the sub-slab screening levels.

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3 SUB-SLAB VAPOR MITIGATION SYSTEM OPERATION AND MAINTENANCE

3.1 BUILDINGS 774 AND 776 SUB-SLAB VAPOR MITIGATION SYSTEM

FPM performed SSVM at Buildings 774 and 776 with continuous system operation starting on June 6, 2011. The Buildings 774 and 776 system is composed of four horizontal wells with a total combined screen length of 430 ft performing under a flow rate of 1 actual cubic feet per minute (acfm) per foot of screen. Building 774 has three horizontal wells with a total combined screen length of 250 ft and Building 776 has one horizontal well with a screen length of 180 ft. The SSVM system is shown in Figure 3-1.

Table 3-1 illustrates the SSVM Systems O&M schedule. O&M includes weekly system component readings (system temperature, flow, vacuum and motor status), semi-annual vapor monitoring point (VMP) vacuum measurements, and granular activated carbon (GAC) disposal and replacement every four months. Indoor and outdoor air sampling, sub-slab vapor sampling, and influent sampling are conducted semi-annually during the heating and cooling months. Table 3-2 presents the sub-slab vapor, indoor and outdoor air results and Table 3-3 presents the influent air results for all of the SSVM System performance monitoring events. The indoor and outdoor air sampling results are now compared to the USEPA Industrial Regional Screening Levels (RSLs[1]) (USEPA, November 2015). The Sub-slab RSLs used for comparison are calculated using the USEPA Vapor Intrusion Screening Level (VISL) Calculator[2] (VISL, May 2014). These levels are now used based on USEPA comments provided for the pending SVI decision document (USEPA, April 2016).

3.1.1 Previous Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance Results

3.1.1.1 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2011

The installation, start-up and initial operation of the SSVM system at Buildings 774 and 776 occurred under a separate contract (FA8903-04-D-8687). This mitigation action is documented in the Final Completion Report Sub-Slab Vapor Mitigation Systems (FPM, February 2013). The performance evaluation section of this referenced report documents sub-slab vapor sampling results indicating a decreasing trend in TCE levels in Buildings 774 and 776. The highest reported result in Building 774 was during the baseline sampling event (May 4, 2011) at 2,900 µg/m^3 at location 774VMP-2. After five months of system operation, the reported result for this location was 11 µg/m^3. The highest reported result in Building 776 during the baseline sampling event (May 4, 2011) was 830 µg/m^3 at location 776VMP-3. After five months of system operation, the reported result for this location was 7.3 µg/m^3.

[1] http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

[2] http://www.epa.gov/oswer/vaporintrusion/guidance.html

All indoor and outdoor air concentrations were within an acceptable range and did not pose an unacceptable risk to building occupants. All sub-slab vapor concentrations fell below screening levels after five months of system operation.

4th Quarter / Calendar Year 2011 (November - December)

It was documented in the Quarterly Operations and Maintenance Report, (4th Quarter / Calendar Year 2011), (FPM, May 2012), that the Buildings 774 and 776 SSVM system extracted approximately 30 gallons per week of water which was collected in a vapor-liquid separator. An application to discharge extracted water into the sanitary sewer was submitted to the Rome Water Pollution Control Facility (RWPCF). Discharge approval was received on January 5, 2012.

A vapor effluent sample was collected on December 19, 2011 from the Buildings 774 and 776 SSVM system. The effluent sampling location was installed on the SSVM system's exhaust stack, following carbon filtration, in the treatment chain. TCE was not detected in the effluent samples of Buildings 774 and 776.

GAC replacement was conducted in December 2011 following the effluent sampling event. GAC replacement is based on the carbon life span which is a factor of adsorption of the effluent contaminant of concern (COC) concentrations. This replacement schedule for GAC was initially determined through calculations outlined in the Work Plan for SSVM Design (FPM, February 2011). These calculations were then checked empirically using the December 2011 effluent sampling results and it was determined that a GAC replacement every four months (FPM, May 2012) was adequate. Effluent sampling was eliminated from the O&M schedule once the carbon life span was calculated and subsequent GAC replacements scheduled.

3.1.1.2 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2012

1st Quarter / Calendar Year 2012 (January - March)

GAC was replaced on February 23, 2012, in accordance with the O&M schedule for carbon replacement.

Sampling occurred at Buildings 774 and 776 on January 25 and 26, 2012. The highest TCE concentration for sub-slab sampling results in Building 774 was at location 774VMP-1, with a concentration of 4.8 µg/m^3. The indoor air sampling result for TCE at Building 774 was 1.5 J µg/m^3 (The J data qualifier indicates that the analyte was positively identified, but the quantitation is an estimation). TCE was not detected in the outdoor air sample collected between Buildings 774 and 776. For Building 776, the highest sub-slab TCE concentration was in location 776VMP-3, at 13 µg/m^3. The indoor air TCE concentration was 0.41 J µg/m^3. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. All of the sub-slab results were below vapor screening levels.

Semi-annual influent sampling occurred on January 24, 2012, prior to sub-slab vapor sampling to determine effective soil vapor extraction (SVE). The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 300 µg/m^3.

2nd Quarter / Calendar Year 2012 (April - June)

GAC was replaced on April 23, 2012, in accordance with the O&M schedule for carbon replacement. Sampling did not occur at Buildings 774 and 776 during the 2nd quarter / CY 2012.

Weekly system component readings from this quarter showed that the system vacuum had a decreasing trend. This is attributed to the system initially extracting water from the sub-surface up until April 2012. The vapor liquid separator did not collect any water past April 2012. Therefore, the approved permit (FPM-001), through RWPCF, for Buildings 774 and 776, to discharge extracted water into the sanitary sewer, was reviewed and closed.

3rd Quarter / Calendar Year 2012 (July - September)

GAC was replaced on July 17 and September 5, 2012 at the site. Additional O&M activities that occurred at the Buildings 774 and 776 SSVM system included the replacement of the inline air filter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on August 6, 2012. Only one outdoor air sample was collected between Buildings 774 and 776 due to the close proximity of the buildings. The highest sub-slab TCE concentrations were 20 µg/m^3 at Building 774 and 12 µg/m^3 at Building 776. At Building 774, TCE was reported at 0.35 F µg/m^3 in the indoor air and was non detect at Building 776. TCE was also not detected in the outdoor air between Buildings 774 and 776. All of the sub-slab results were below vapor screening levels. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Semi-annual influent sampling occurred on August 3, 2012, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location is on the SSVM system's exhaust stack, before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 190 µg/m^3.

4th Quarter / Calendar Year 2012 (October - December)

GAC was replaced on December 4, 2012 at the site. Sampling did not occur for the Buildings 774 and 776 SSVM system during this quarter.

3.1.1.3 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2013

1st Quarter / Calendar Year 2013 (January - March)

The GAC was not replaced during this quarter. Additional O&M activities conducted during this quarter included troubleshooting system shutdown in January. The system was not running upon arrival for the weekly inspection on January 25, 2013. It was assumed that the system had been off for up to one week since the system was operating during the previous week's readings. Troubleshooting occurred and it was determined that the contactor switch in the control panel failed most likely due to condensation. After troubleshooting, the contactor switch was replaced and the system was turned on. There were no additional shut downs reported during this quarter.

Vacuum readings were collected at all VMPs associated with the system on February 14, 2013. Results showed all VMPs were under vacuum except for 774VMP-1 and -3. The lack of vacuum is attributed to the structural foundation and/ or preferential paths. Also, 774VMP-3 is located at the point designed to capture data from the worst case scenario, and is installed at the end of the 774SSVM-1 well screen with the greatest distance off axis.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on February 21, 2013. The highest sub-slab TCE concentration in Building 774 was reported for location 774VMP-3 at 1.3 F µg/m^3 and the highest sub-slab TCE concentration in Building 776 was reported for location 776VMP-3 at 2.4 µg/m^3. TCE was not detected in the indoor air sample from Building 776 or the outdoor air sample. TCE was detected with a concentration of 0.22 F µg/m^3 in the indoor air at Building 774. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. All of the sub-slab vapor results were below vapor screening levels.

Semi-annual influent sampling occurred on February 15, 2013, prior to sub-slab vapor sampling to determine effective extraction. The influent sampling location is on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 20 µg/m^3. An effluent sample was also collected. TCE was non detect.

2nd Quarter / Calendar Year 2013 (April - June)

GAC was replaced on April 24, 2013. Additional O&M activities conducted during this quarter included water removal from the knock-out tank. The system was not running upon arrival for the weekly inspection on April 4, 2013. The system is programmed to automatically shut down when the knock-out tank contains more than half of its capacity of water. It was assumed that the system was shut down as a result of the water level in the knockout tank and that it had been off for up to one week since the system was operating during the previous week's readings. Approximately 27 gallons of water was pumped out of the knock-out tank into a 55-gallon drum awaiting sampling and proper disposal. After the water was removed, the system was turned on. There were no additional shut downs reported during this quarter.

3rd Quarter / Calendar Year 2013 (July - September)

The GAC was replaced on September 13, 2013 and no system shutdowns were reported during this quarter. Additional water (approximately 25 gallons) was pumped out of the knock-out during this quarter.

As a result of the collection of water from the knock-out tank in April 2013, the discharge permit through the City of Rome was re-opened. Prior to the re-opening of the discharge permit, the water was sampled on August 8, 2013 and analyzed for volatile organic compounds (VOCs). Only acetone was detected. The detected concentration was 3.9 J µg/L. The NYS Groundwater Standard is 50 µg/L. The J data qualifier indicates that the analyte was positively identified, but the quantitation is an estimation. The water was discharged to the City of Rome sewer system on September 13, 2013. Additional preventative measures have been implemented as a result of the water collection in the knockout tank. The preventative measures include inspections of the knock-out tank during the weekly system inspections and removal of any water. All collected water will be stored in 55-gallon drums and sampled prior to discharge to the City of Rome sewer system. No additional water was removed through the remainder of the quarter.

A composite sample of the spent GAC from the SSVM system at Buildings 774 and 776 was collected on August 8, 2013 then analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCs and ignitibility. There were no detections and disposal of the spent carbon is pending.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on August 8, 2013. The highest sub-slab TCE concentration in Building 774 was reported for location 774VMP-3 at 0.33 F µg/m^3 and the highest sub-slab TCE concentration in Building 776 was reported for location 776VMP-2 at 0.20 F µg/m^3. All of the sub-slab results were below vapor screening levels. TCE was not detected in the indoor air or outdoor air samples from Buildings 774 and 776.

Semi-annual influent sampling occurred on February 15, 2013, prior to sub-slab vapor sampling to determine effective extraction. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 120 µg/m^3.

4th Quarter / Calendar Year 2013 (October - December)

The GAC was not replaced and no system shutdowns were reported during this quarter. Also, no water was observed in the knock-out tank requiring removal. Vacuum readings were collected at all VMPs associated with the system on November 1, 2013. Vacuum readings at Building 774 VMPs were 0.01 inch of water gauge (inch w.g.) (774VMP-1), 0.11 inch w.g. (774VMP-2), and 0.015 inch w.g. (774VMP-3). Vacuum readings at Building 776 VMPs were 0.095 inch w.g. (776VMP-1), 0.015 inch w.g. (776VMP-2), and 0.01 inch w.g. (776VMP-3).

3.1.1.4 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2014

1st Quarter / Calendar Year 2014 (January - March)

The GAC was replaced January 13, 2014 and no system shutdowns were reported during this quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on January 30, 2014. The highest sub-slab TCE concentration in Building 774 was reported for location 774VMP-1 at 6.8 µg/m^3, and the highest sub-slab TCE concentration in Building 776 was reported for location 776VMP-3 at 2.6 µg/m^3. All of the sub-slab vapor results were below vapor screening levels. TCE was detected with a concentration of 0.34 J µg/m^3 in the indoor air at Building 774 and 0.26 J µg/m^3 in the indoor air at Building 776. The TCE concentration detected in the outdoor air sample was 1.2 µg/m^3. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Semi-annual influent sampling occurred on January 28, 2014, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 32 µg/m^3. An effluent sample was not collected.

2nd Quarter / Calendar Year 2013 (April - June)

The GAC was replaced on May 20, 2014 and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

3rd Quarter / Calendar Year 2014 (July - September)

The GAC was not replaced this quarter and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on July 17, 2014. The highest sub-slab TCE concentration in Building 774 was 9.2 J µg/m^3 at location 774VMP-3 and the highest sub-slab TCE concentration in Building 776 was 3.5 µg/m^3 at location 776VMP-3. All of the sub-slab vapor results were below vapor screening levels. TCE was not detected in the indoor air at Building 774 but was detected at 0.95 J µg/m^3 in the indoor air at Building 776. The TCE concentration detected in the outdoor air sample was 0.53 J µg/m^3. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Semi-annual influent sampling occurred on July 16, 2014, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 97 µg/m^3. An effluent sample was not collected.

4th Quarter / Calendar Year 2014 (October - December)

The GAC was replaced on October 14, 2014 and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

3.1.1.5 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2015

1st Quarter / Calendar Year 2015 (January - March)

The GAC was replaced on February 26, 2015 and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on January 22, 2015. The highest sub-slab TCE concentration in Building 774 was 0.71 µg/m^3 at location 774VMP-1 and the highest sub-slab TCE concentration in Building 776 was 2.1 µg/m^3 at location 776VMP-3. All of the sub-slab vapor results were below vapor screening levels. TCE was not detected in the indoor air at Building 774 but was detected at 0.35 µg/m^3 in the indoor air at Building 776. TCE was not detected in the outdoor air sample. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Semi-annual influent sampling occurred on January 22, 2015, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 100 µg/m^3. An effluent sample was not collected.

2nd Quarter / Calendar Year 2015 (April - June)

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.

3rd Quarter / Calendar Year 2015 (July - September)

The GAC was not replaced and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on August 31, 2015. All sampling results are presented in Table 3-2. Only one outdoor air sample was collected between Buildings 774 and 776 due to the close proximity of the buildings. The highest sub-slab TCE concentration in Buildings 774 and 776 were reported as follows:

- Building 774 - TCE concentration: 1.9 µg/m^3 at location 774VMP-2, and
- Building 776 - TCE concentration: 5.1 µg/m^3 at location 776VMP-3.

The indoor and outdoor air TCE concentrations were detected as follows:

- Building 774 - TCE concentration was non detect in the indoor air
- Building 776 - TCE concentration: 0.52 J µg/m^3 in the indoor air
- TCE concentration: non-detect in the outdoor air between Buildings 774 and 776

All of the sub-slab results were below vapor screening levels. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. Figures 3-2 and 3-3 show the sub-slab TCE vapor trend chart in both Buildings 774 and 776. The trend lines calculated are exponential trend lines based on the coefficient determination best fit regression line. The data fits an exponential trend the best because of the significant decrease in TCE vapor after the initial start-up of the system. As shown in Figure 3-2, there has been some fluctuation in the Building 774 sub-slab TCE vapor results. During the past five rounds the results have varied an order of magnitude from non-detect to 9.2 J µg/m^3. This could be attributed to non-uniform system operation and inconsistent vacuum radius of influences in the sub-slab.

Semi-annual influent sampling occurred on August 28, 2015, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 774 and 776 for TCE were 82 µg/m3. An effluent sample was not collected. Table 3-3 summarizes influent results since the start-up of the SSVM system.

4th Quarter / Calendar Year 2015 (October-December)

O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status) and GAC replacement. The GAC was replaced on September 30, 2015. System flow rate and vacuum readings were similar to previous quarters and no water removal from the knockout tank was required during this quarter.

The system was not running upon arrival for the weekly inspection on November 12, 2015. Since the system was operational on the previous inspection conducted on November 5, 2015, it is assumed that the system was off for less than a week. The system was also not running upon arrival for the weekly inspection on December 3, 2015. Since the system was operational on the previous inspection conducted on November 20, 2015, it is assumed that the system was off for almost two weeks. The shutdowns were due to a knock out tank alarm; however, no water was in the tank. The system was turned back on each time. No other shutdowns have been reported.

3.1.2 Buildings 774 and 776 Sub-Slab Vapor Mitigation Operations and Maintenance 2016

1st Quarter / Calendar Year 2016 (January-March)

The GAC was not replaced this quarter and no system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 774 and 776 on February 3, 2016. All sampling results are presented in Table 3-2. Only one outdoor air sample was collected between Buildings 774 and 776 due to the close proximity of the buildings. The highest sub-slab TCE concentration in Building 774 was 1.9 µg/m^3 at location 774VMP-1 and the highest sub-slab TCE concentration in Building 776 was 2.9 µg/m^3 at location 776VMP-3. All of the sub-slab vapor results were below vapor screening levels. TCE was not detected in the indoor air at Building 774 but was detected at 0.28 µg/m^3 in the indoor air at Building 776. TCE was not detected in the outdoor air sample. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Figures 3-4 and 3-5 show the sub-slab TCE vapor trend chart in both Buildings 774 and 776. The trend lines calculated are exponential trend lines based on the coefficient determination best fit regression line. The data fits an exponential trend the best because of the significant decrease in TCE vapor after the initial start-up of the system. As shown in Figure 3-4, there has been some fluctuation in the Building 774 sub-slab TCE vapor results. During the past five rounds the results have varied an order of magnitude from non-detect to 9.2 J µg/m^3. This could be attributed to non-uniform system operation and inconsistent vacuum radius of influences in the sub-slab.

Semi-annual influent sampling occurred on February 1, 2016, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. The influent concentration for TCE at Buildings 774 and 776 was 60 µg/m^3. An effluent sample was not collected. Table 3-3 summarizes influent results since the start-up of the SSVM system.

2nd Quarter / Calendar Year 2016 (April-June)

O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status). The GAC was replaced on June 30, 2016. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 3-2 and Figure 3-3, respectively. The readings are collected prior to the regenerative blower on each individual well head. However, it should be noted that an additional horizontal well, 774SSVM-3, was installed under Building 774 as shown in Figure 3-1. This well ties into 774SSVM-2 underground and therefore is part of the flow rate and vacuum reading collected for 774SSVM-2. No system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter. The O&M field forms are presented in Appendix A. The waste inventory tracking form for the spent carbon is provided in Appendix B.

3.2 BUILDINGS 785 AND 786 SUB-SLAB VAPOR MITIGATION SYSTEM

FPM performed SSVM at Buildings 785 and 786 starting on May 19, 2011. The Buildings 785 and 786 system is composed of two horizontal wells with a total combined screen length of 300 ft performing under a flow rate of 1 acfm per foot of screen. Building 785 has one horizontal well with a screen length of 140 ft and Building 786 has one horizontal well with a screen length of 160 ft. The SSVM system is shown in Figure 3-6.

Table 3-1 illustrates the SSVM Systems O&M schedule. O&M includes weekly system component readings (system temperature, flow, vacuum and motor status), weekly VMP vacuum measurements, and GAC disposal and replacement every four months. Indoor and outdoor air sampling, sub-slab vapor sampling, and influent sampling are conducted semi-annually during the heating and cooling months. Table 3-4 presents the sub-slab vapor, indoor and outdoor air results and Table 3-5 presents the influent air results for all of the SSVM System performance monitoring events. The indoor and outdoor air sampling results are now compared to the USEPA Industrial RSLs[3] (USEPA, November 2015). The Sub-slab RSLs used for comparison are calculated using the USEPA VISL Calculator[4] (VISL, May 2014). These levels are now used based on USEPA comments provided for the pending SVI decision document.

3.2.1 Previous Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance Results

3.2.1.1 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2011

The installation, start-up and initial operation of the SSVM system at Buildings 785 and 786 occurred under a separate contract (FA8903-04-D-8687). This mitigation action is documented in the Final Completion Report Sub-Slab Vapor Mitigation Systems (FPM, February 2013). The performance evaluation section of this report documents sub-slab vapor sampling results indicated a decreasing trend in TCE levels in Buildings 785 and 786 (Figure 3-7 and 3-8). The highest reported result in Building 785 was during the baseline sampling event (March 18, 2011) at 720 µg/m^3 at location 785VMP-4. After five months of system operation, the reported result for this location was 33 µg/m^3. The highest reported result in Building 786 was during the baseline sampling event (January 18, 2011) at 4,900 µg/m^3 at location 786VMP-1. After five months of system operation, the reported result for this location was 49 µg/m^3.

Location 785VMP-5 was not sampled during the baseline sampling event due to retained water observed in the VMP. A new location was installed north of the horizontal well. The new location, also called 785VMP-5, was sampled during the three-month sampling event and TCE was reported at 610 µg/m^3. After five months of system operation, the reported result for this location was 140 µg/m^3.

[3] http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

[4] http://www.epa.gov/oswer/vaporintrusion/guidance.html

All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. All sub-slab vapor concentrations fell below screening levels after five months of system operation.

4th Quarter / Calendar Year 2011 (November - December)

A vapor effluent sample was collected on December 19, 2011 from the Buildings 785 and 786 SSVM system. The effluent sampling location was installed on the SSVM system's exhaust stack following carbon filtration in the treatment chain. Results showed a TCE concentration of 4.1 µg/m^3.

GAC replacement was conducted in December 2011 following the effluent sampling event. GAC replacement is based on the carbon life span which is a factor of adsorption of the effluent COC concentrations. This replacement schedule for GAC was initially determined through calculations outlined in the Work Plan for SSVM Design (FPM, February 2011). These calculations were then checked empirically using the December 2011 effluent sampling results. It was determined that a bimonthly schedule for GAC replacement (FPM, May 2012) was adequate and effluent sampling was eliminated from the O&M schedule once the carbon life span was calculated and subsequent GAC replacement scheduled.

3.2.1.2 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2012

1st Quarter / Calendar Year 2012 (January - March)

GAC was replaced on February 23, 2012, in accordance with the O&M schedule for carbon replacement.

Sampling occurred at Buildings 785 and 786 on January 27, January 31 and February 7. At the Building 785 Site, the highest sub-slab TCE concentration resulted in 18 µg/m^3 at location 785VMP-5. TCE was not detected in the indoor air of Building 785. TCE was not detected in the outdoor air sample collected between Buildings 785 and 786. The highest sub-slab TCE concentration in Building 786 was at location 786VMP-2 at a level of 22 µg/m^3. Chloroform was also detected at 786VMP-2 at a concentration of 12 µg/m^3. The concentration for chloroform was above sub-slab screening levels up until this sampling event. TCE was not detected in the indoor air of Building 786. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. All of the sub-slab results were below vapor screening levels.

Semi-annual influent sampling occurred on January 24, 2012, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results for TCE were 140 µg/m^3.

2nd Quarter / Calendar Year 2012 (April - June)

GAC was replaced on April 23, 2012, in accordance with the O&M schedule for carbon replacement. Sampling did not occur at Buildings 785 and 786 during the 2nd quarter / CY 2012.

3rd Quarter / Calendar Year 2012 (July - September)

GAC was replaced on July 5 and September 5, 2012 at the site. Additional O&M activities occurred at the Buildings 785 and 786 SSVM system during the 3rd Quarter / CY 2012 besides the weekly system component readings. During system readings on August 24, 2012, it was observed that system vacuum had decreased and the flow rate in horizontal well 786SSVM-1 had significantly increased. The cause was investigated and the dead end of the horizontal well 786SSVM-1 was damaged. Therefore, the system was shut down and the cap was repaired. The system was turned back on the next day following the repairs.

On August 31, 2012, the system was found to not be operating upon arrival. Troubleshooting procedures were followed, including checking the power source, and checking for dirt build up in the regenerative blower. It was observed that the regenerative blower was clean, but the power source was not adequate. Griffiss Utility Service Corporation was contacted and they determined that a transformer used by the Buildings 785 and 786 SSVM system was not working properly. The transformer was replaced. Also during the down time the electrical motor of the regenerative blower was brought to an electrical motor service shop and the bearings were replaced. Following the electrical motor servicing, the system was turned back on and began operation on October 25, 2012.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on August 8, 2012. One outdoor air sample was collected between Buildings 785 and 786 due to the close proximity of the buildings. The highest sub-slab TCE concentrations were 39 µg/m^3 at Building 785 and 110 µg/m^3 at Building 786. TCE was not detected in the indoor air or outdoor air samples for both buildings. All of the sub-slab results were below vapor screening levels. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Semi-annual influent sampling occurred on August 3, 2012, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location is on the SSVM system's exhaust stack before carbon treatment. Influent results for TCE were 250 µg/m^3.

4th Quarter / Calendar Year 2012 (October - December)

The system was not in operation from October 1 through October 25, 2012 as described in the 3rd Quarter / CY 2012 O&M text. GAC was replaced on December 4, 2012 at the site. Sampling did not occur for the Buildings 785 and 786 SSVM system during this quarter.

3.2.1.3 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2013

1st Quarter / Calendar Year 2013 (January - March)

The GAC was not replaced during this quarter. Vacuum readings collected at all VMPs associated with the system on February 14, 2013. Results showed all VMPs were under vacuum except for 786VMP-2. The lack of vacuum is attributed to the structural foundation and/ or preferential paths. As part of the Building 786 interim removal action (FPM, March 2002), a 12 feet by 16 feet area was excavated down to 10 feet bgs. The excavated area was backfilled with crushed stone. The location of the excavation was on the northwest corner of Building 786. The excavation was relatively close (30 feet away) to 786VMP-2 and may create short circuiting under the building footprint.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on March 6, 2013. The highest sub-slab TCE concentration in Building 785 was reported for 785VMP-4 at 3 µg/$m^{3.}$ The highest sub-slab TCE concentration in Building 786 was reported for 786VMP-1 at 9.1 F µg/m^3. All of the sub-slab results were below vapor screening levels. TCE was not detected in any of the indoor and outdoor air samples.

Semi-annual influent sampling occurred on February 14, 2013, prior to sub-slab vapor sampling to determine effective SVE. Influent results for TCE were 93 µg/m^3. An effluent sample was also collected and TCE was 4.4 µg/m^3.

2nd Quarter / Calendar Year 2013 (April - June)

GAC was replaced on April 24, 2013. No additional O&M activities besides the weekly system component readings were performed during this quarter.

3rd Quarter / Calendar Year 2013 (July - September)

Additional O&M activities occurred at the Buildings 785 and 786 SSVM system during the 3rd Quarter / CY 2013 besides the weekly system component readings. Approximately 50 gallons of water was pumped out of the knock-out tank into a 55-gallon drum on July 19, 2013. The water was sampled on August 8, 2013 and analyzed for VOCs. Only TCE was detected at 0.37 J µg/L. The NYS Groundwater Standard is 5 µg/L and the J qualifier indicates the analyte was positively identified but the quantitation is an estimation. The water was discharged under permit to the City of Rome sewer system on September 13, 2013. A composite sample of the spent GAC from the SSVM system at Buildings 785 and 786 was collected on August 8, 2013 and analyzed for TCLP, VOCs, and ignitibility. There were no detections and disposal of the spent carbon is pending.

The electrical supply for the Building 786 system was damaged during airport grass mowing activities in August 2013. Therefore, the system was not in operation from August 29, 2013 through the remainder of the quarter.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on August 9, 2013. The highest sub-slab TCE concentration was at 786VMP-1 at 150 µg/m^3 in Building 786 and at 785VMP-4 at 17 µg/m^3 in Building 785. All of the sub-slab results were below vapor screening levels. TCE was not detected in any of the indoor and outdoor air samples. Semi-annual influent sampling occurred on August 7, 2013, prior to sub-slab vapor sampling to determine effective SVE. Influent results for TCE were 130 µg/m^3.

4th Quarter / Calendar Year 2013 (October - December)

The system was shut down due to the electrical supply being damaged during mowing activities in August 2013.

Rebound Evaluation – Round 1 (October 2013)

Given that the system was shut down, a rebound evaluation was conducted in October 2013 to assess the ambient sub-slab conditions. Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on August 9, 2013. Sampling results showed an increase in TCE concentrations at all VMPs except for 786VMP-2. The highest sub-slab TCE concentration was at 785VMP-5 at 73 µg/m^3 at Building 785 and at 786VMP-1 at 140 µg/m^3 at Building 786. All of the sub-slab results were below vapor screening levels. TCE was not detected in any of the indoor and outdoor air samples.

3.2.1.4 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2014

1st Quarter / Calendar Year 2014 (January - March)

The system was still shut down this quarter. The shutdown was triggered by the damaged electrical supply. However, now renovations are being performed to Building 786 and the transformer tub that supplied power to the system has been removed. The new transformer was installed on August 2014.

Rebound Evaluation – Round 2 – (January/February 2014)

An additional rebound evaluation round was conducted in January and February 2014 to assess the sub-slab conditions. The rebound evaluation consisted of sub-slab vapor, indoor air and outdoor air sampling. Sampling was conducted on January 30, 2014. As a result of the low temperatures and equipment placement within the buildings, the sampling ports at VMPs 785VMP-4 and 786VMP-1 were frozen and could not be sampled on January 30, 2014. These points were sampled on February 28, 2014 (785VMP-4) and February 29, 2014 (786VMP-1). The indoor and outdoor air TCE concentrations were non-detect. The highest sub-slab TCE concentration in Buildings 785 and 786 were as follows:

- Building 785 TCE at 27 µg/m^3 at location 785VMP-4
- Building 786 TCE at 26 µg/m^3 at location 786VMP-1

All of the sub-slab results were below vapor screening levels. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

2nd Quarter / Calendar Year 2014 (April - June)

The system was still shut down this quarter awaiting renovations to be completed.

3rd Quarter / Calendar Year 2014 (July - September)

The system was turned back online on September 25, 2014. Prior to the system being turned back online, round 3 of rebound evaluation occurred.

Since the system came back online, O&M activities resumed in the following quarter including weekly system component readings (system temperature, flow, vacuum and motor status), periodic GAC replacement, and semi-annual indoor and outdoor air, sub-slab vapor, and influent sampling. The GAC was replaced on September 24, 2014 prior to system startup.

4th Quarter / Calendar Year 2014 (October – December)

GAC was replaced in the previous quarter prior to system start-up (Appendix A). No system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

3.2.1.5 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2015

1st Quarter / Calendar Year 2015 (January - March)

The GAC was replaced on February 26, 2015. No system shutdowns were reported during this quarter and no water removal from the knockout tank was required.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on January 26, 2015. The highest sub-slab TCE concentration in Building 785 was 41 µg/m^3 at location 785VMP-5 and the highest sub-slab TCE concentration in Building 786 was 6.3 µg/m^3 at location 786VMP-2. All of the sub-slab vapor results were below vapor screening levels. The indoor and outdoor air TCE concentrations were all non-detect.

Semi-annual influent sampling occurred on January 26, 2015, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 785 and 786 for TCE were 72 µg/m^3. An effluent sample was not collected.

2nd Quarter / Calendar Year 2015 (April - June)

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. In addition, no water removal from the knockout tank was required during this quarter.

3rd Quarter / Calendar Year 2015 (July - September)

The GAC was not replaced and no system shutdowns were reported during this quarter. No water removal from the knockout tank was required.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on September 1, 2015. All sampling results are presented in Table 3-4. Only one outdoor air sample was collected between Buildings 785 and 786 due to the close proximity of the buildings. The indoor and outdoor air TCE concentrations were all non-detect.

The highest sub-slab TCE concentration in Buildings 785 and 786 were detected as follows:

- Building 785 - TCE concentration: 150 µg/m^3 at location 785VMP-5
- Building 786 - TCE concentration: 160 µg/m^3 at location 786VMP-1

All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. Figures 3-7 and 3-8 show the sub-slab TCE vapor trend chart in both Buildings 785 and 786. The trend lines calculated are exponential trend lines based on the coefficient determination best fit regression line. The data fits an exponential trend the best because of the significant decrease in TCE vapor after the initial start-up of the system.

Semi-annual influent sampling occurred on August 28, 2015, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. Influent results at Buildings 785 and 786 for TCE were 140 µg/m^3. An effluent sample was not collected. Table 3-5 summarizes influent results since the start-up of the SSVM system.

4th Quarter / Calendar Year 2015 (October-December)

O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status) and GAC replacement. The GAC was replaced on September 30, 2015. Compared to previous quarters, the system flow rate and vacuum decreased at 786SSVM-1 and slightly increased at 785SSVM-1.

No system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter.

3.2.2 Buildings 785 and 786 Sub-Slab Vapor Mitigation Operations and Maintenance 2016

1st Quarter / Calendar Year 2016 (January-March)

The GAC was not replaced this quarter. The system was not running on arrival on January 22, 2016 but, since the system was operational on January 15, 2016, the system was down for less than a week. The system was also not running on arrival the following week on February 1, 2016 and was periodically shut down during the month of February due to large amounts of water filling the knockout tank. It was discovered that during the previous year a lawn mower had possibly struck the exposed polyvinyl chloride (PVC) piping of 786SSVM-1, opening it at the ground surface and allowing large amounts of snowmelt to enter the system and fill the knockout tank. Based on recorded changes in vacuum at 786SSVM-1 shown on Figure 3-8, the incident with the lawn mower likely occurred in early September 2015. The system was repaired on February 25, 2016 and the vacuum readings returned to a level indicating normal system operation. Approximately 85 gallons of water was removed from the knockout tank during this quarter and containerized in 55 gallon drums on-site for sampling and ultimate disposal. Sampling was collected on March 31, 2016 and results showed no VOC exceedances. The water was discharged under to the RWPCF, with approval from the City of Rome, on June 29, 2016. All correspondence with the City of Rome and the raw lab data are provided in Appendix B.

Sub-slab vapor, indoor and outdoor air sampling occurred at Buildings 785 and 786 on February 2, 2016. All sampling results are presented in Table 3-4. Only one outdoor air sample was collected between Buildings 785 and 786 due to the close proximity of the buildings. The indoor and outdoor air TCE concentrations were all non-detect. The highest sub-slab TCE concentration in Building 785 was 7.3 µg/m^3 at location 785VMP-5 and the highest sub-slab TCE concentration in Building 786 was 41 µg/m^3 at location 786VMP-1. All of the sub-slab results were below vapor screening levels with the exception of 786VMP-1 mentioned above which exceeded the sub-slab vapor screening level of 30 µg/m^3. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants. TCE was not detected in the indoor air at Building 774 but was detected at 0.28 µg/m^3 in the indoor air at Building 776. TCE was not detected in the outdoor air sample. All indoor and outdoor air concentrations were within an acceptable range and did not pose any unacceptable risk to building occupants.

Figures 3-9 and 3-10 show the sub-slab TCE vapor trend chart in both Buildings 785 and 786. The trend lines calculated are exponential trend lines based on the coefficient determination best fit regression line. The data fits an exponential trend the best because of the significant decrease in TCE vapor after the initial start-up of the system.

Semi-annual influent sampling occurred on February 1, 2016, prior to sub-slab vapor sampling to determine effective SVE. The influent sampling location was installed on the SSVM system's exhaust stack before carbon treatment. The influent concentration for TCE at Buildings 785 and 786 was 80 µg/m^3. An effluent sample was not collected. Table 3-5 summarizes influent results since the start-up of the SSVM system.

2nd Quarter / Calendar Year 2016 (April-June)

O&M activities conducted during this quarter included weekly system component readings (system temperature, flow, vacuum and motor status). The GAC was replaced on June 30, 2016. The system flow rate and vacuum readings collected in previous quarters and this quarter are illustrated on Figure 3-2 and Figure 3-3, respectively. The readings are collected prior to the regenerative blower on each individual well head. No system shutdowns were reported during this quarter. In addition, no water removal from the knockout tank was required during this quarter. The O&M field forms are presented in Appendix A. The waste inventory tracking form for the spent carbon is provided in Appendix B.

3.3 SPENT GRANULAR ACTIVATED CARBON DISPOSAL

A total of 11 55-gallon drums fill with spent GAC were collected at the sites and transported for disposal by EPS of Vermont on June 30, 2016. All drums were disposed of at the Ontario County Landfill in Stanley, New York. All disposal paperwork is provided in Appendix B.

4 DISCUSSION

4.1 BUILDINGS 774 AND 776

The SSVM system at Buildings 774 and 776 has been in operation since June 2011. O&M activities conducted during this period of performance for the Buildings 774 and 776 SSVM system included weekly system component readings (system temperature, flow, vacuum, motor status, and knock-out tank inspection), GAC replacement, and GAC disposal. Semi-annual sub-slab vapor, indoor air, and outdoor air sampling was not conducted in this quarter. Sampling results from previous quarters show that the sub-slab vapor sampling results showed that the TCE concentrations were similar to results from previous rounds and all sub-slab vapor concentrations were below screening levels. All indoor and outdoor air concentrations were also below screening levels and did not pose any unacceptable risk to building occupants.

Based on the results of influent sampling of the system at Buildings 774 and 776 on February 1, 2016, it is estimated that 192 grams of TCE have been removed since the last influent sampling occurred in August 2015. The TCE mass removal calculations are provided in Appendix C.

4.2 BUILDINGS 785 AND 786

The SSVM system at Buildings 785 and 786 was in operation from May 2011 to August 2013 and then from September 2014 to present. O&M activities conducted during this period of performance, for the Buildings 785 and 786's SSVM system, included weekly system component readings (system temperature, flow, vacuum, motor status, and knock-out tank inspection), GAC replacement, and GAC disposal. Semi-annual sub-slab vapor, indoor air, and outdoor air sampling was not conducted in this quarter. Sampling results from previous quarters show that the sub-slab vapor sampling concentrations of TCE are primarily lower compared to previous rounds, and all sub-slab vapor concentrations were below screening levels. All indoor and outdoor air concentrations were also below screening levels and did not pose any unacceptable risk to building occupants.

Based on the results of influent sampling of the system at Buildings 785 and 786 on February 1, 2016, it is estimated that 143 grams have been removed since the last influent sampling occurred in August 2015. The TCE mass removal calculations are provided in Appendix C.

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5 RECOMMENDATIONS

Performance monitoring for groundwater, conducted under a separate contract, showed chlorinated VOC concentrations were still above NYS Groundwater Standards at both the SD-052-02 Building 775 Site and the SD-052-01 Apron 2 Chlorinated Plume Site. Therefore, continued operation of the SSVM systems at Buildings 774, 776, 785, and 786 is recommended. SSVM soil vapor monitoring data shows TCE concentrations in the sub-slab are decreasing at all sites as a result of the mitigation system operation.

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6 REFERENCES

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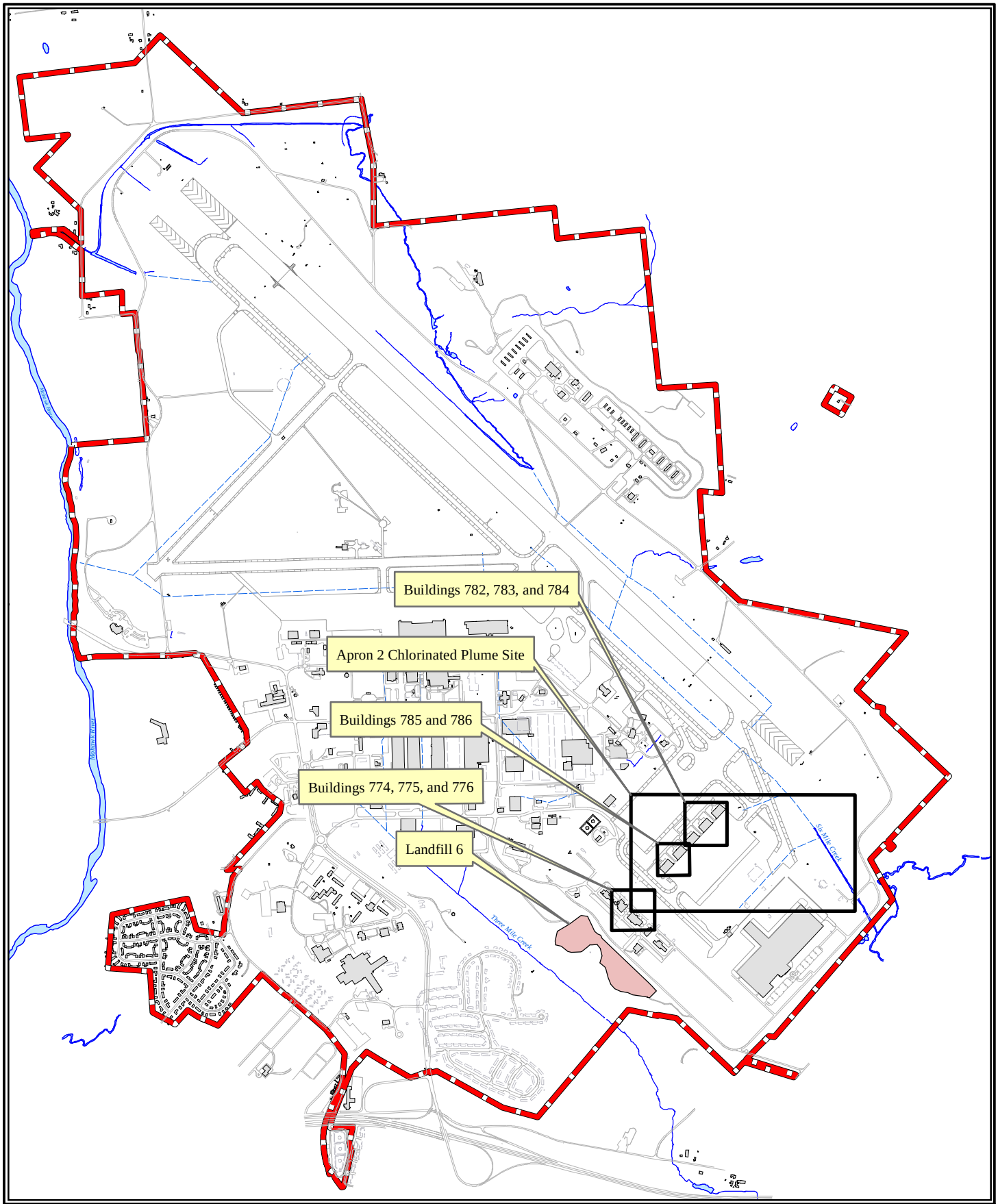
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Figures



Base Location

Key to Features

- Road/Airfield
- Storm Drain
- Surface Water
- Base Boundary
- Landfill 6
- Demolished Facility
- Existing Facility
- Site Location

1,200 600 0 1,200 2,400
Feet

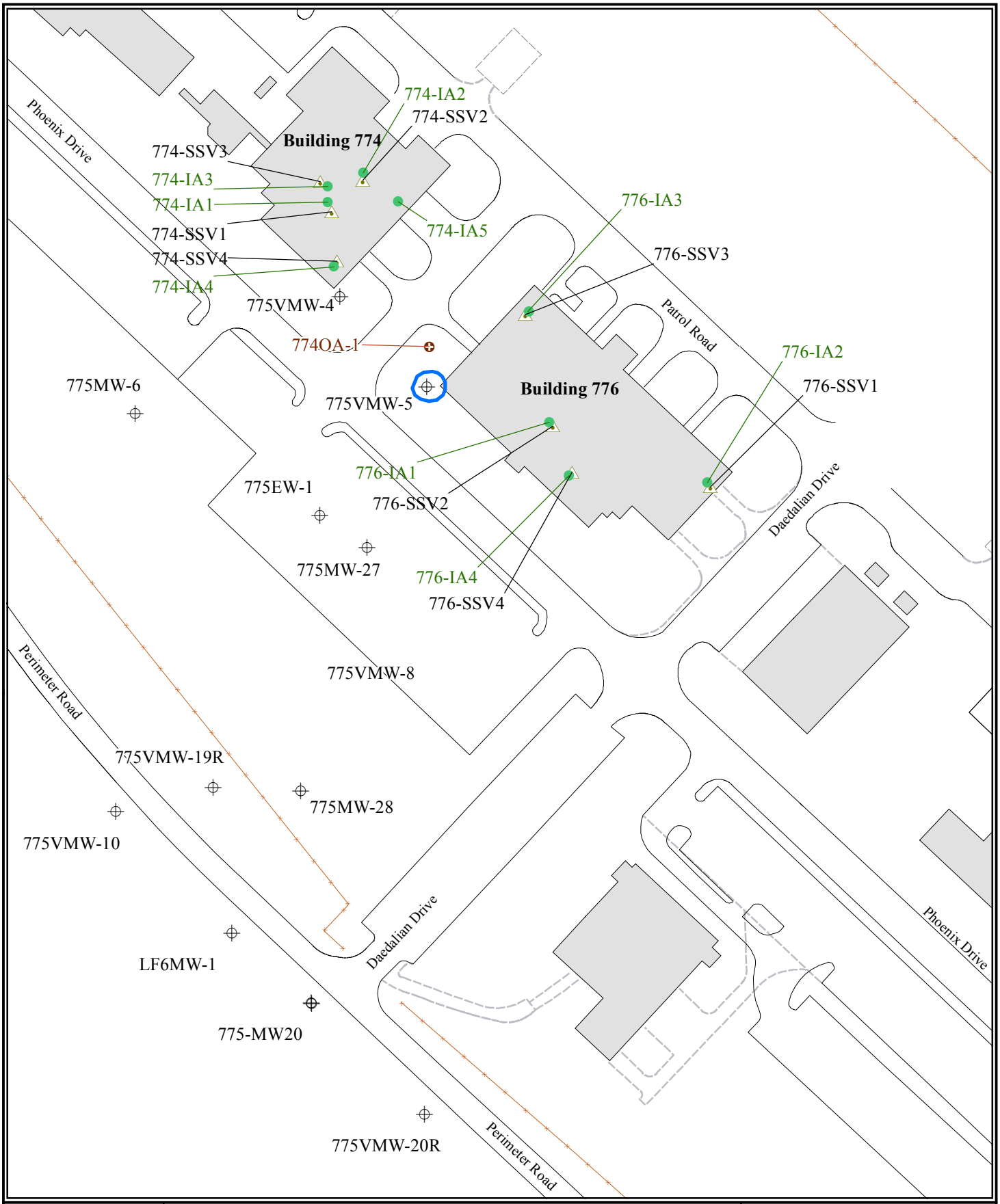
Figure 1-1
SSVM Site Locations

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Site Location

Key to Features

- Monitoring Well
- Indoor Air Sample Location
- Outdoor Air Sample Location
- Sub-Slab Vapor
- Existing Road
- Removed Road
- Demolished Facility
- Existing Facility
- TCE 50 µg/L 2014

Figure 2-1
Buildings 774 and 776
Site Features

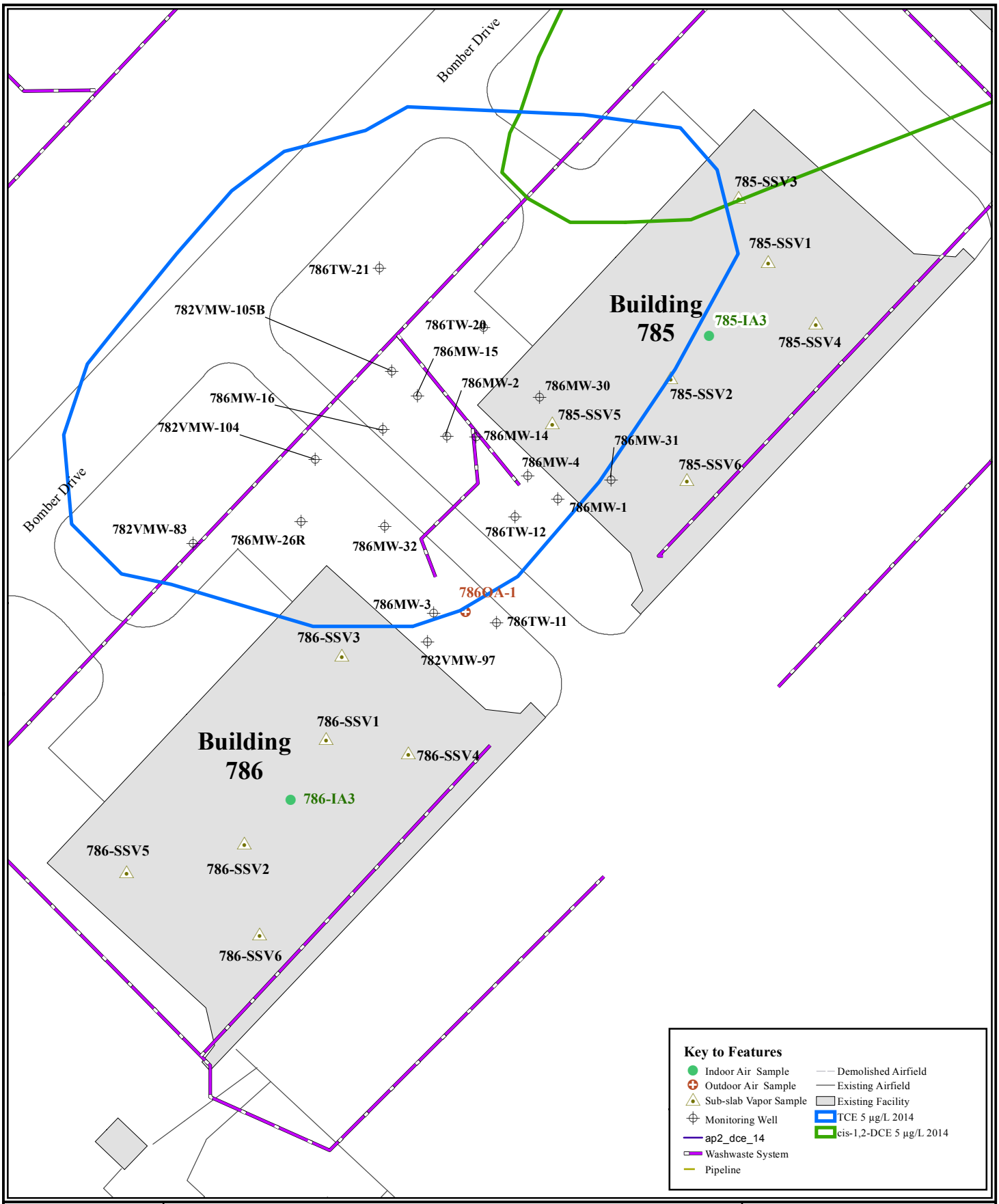
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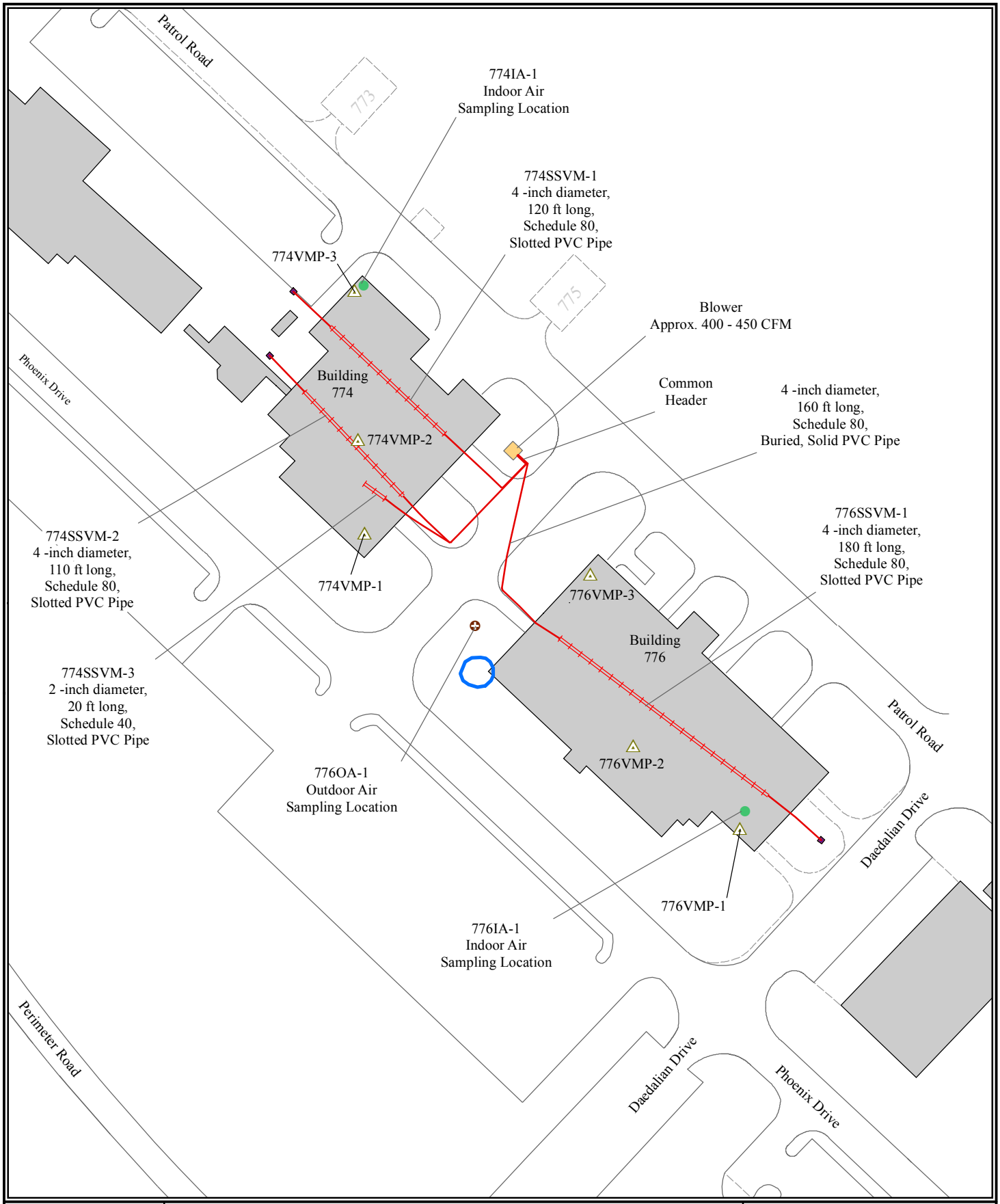
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Site Location

Key to Features

- Indoor
- Outdoor
- SubSlab Vapor
- Horizontal Well Screen
- Horizontal Well Riser
- Existing Road
- Removed Road
- TCE 50 µg/L 2014
- SVE System
- Entrance/Exit Pit
- Demolished Facility
- Existing Facility

Figure 3-1
Buildings 774 and 776
SSVM System

N

0 50 100 200

Feet

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Figure 3-2
774SSVM-1, -2 and 776SSVM-1
Long Term Operation Flow Rate
(June 2011 through March 2016)

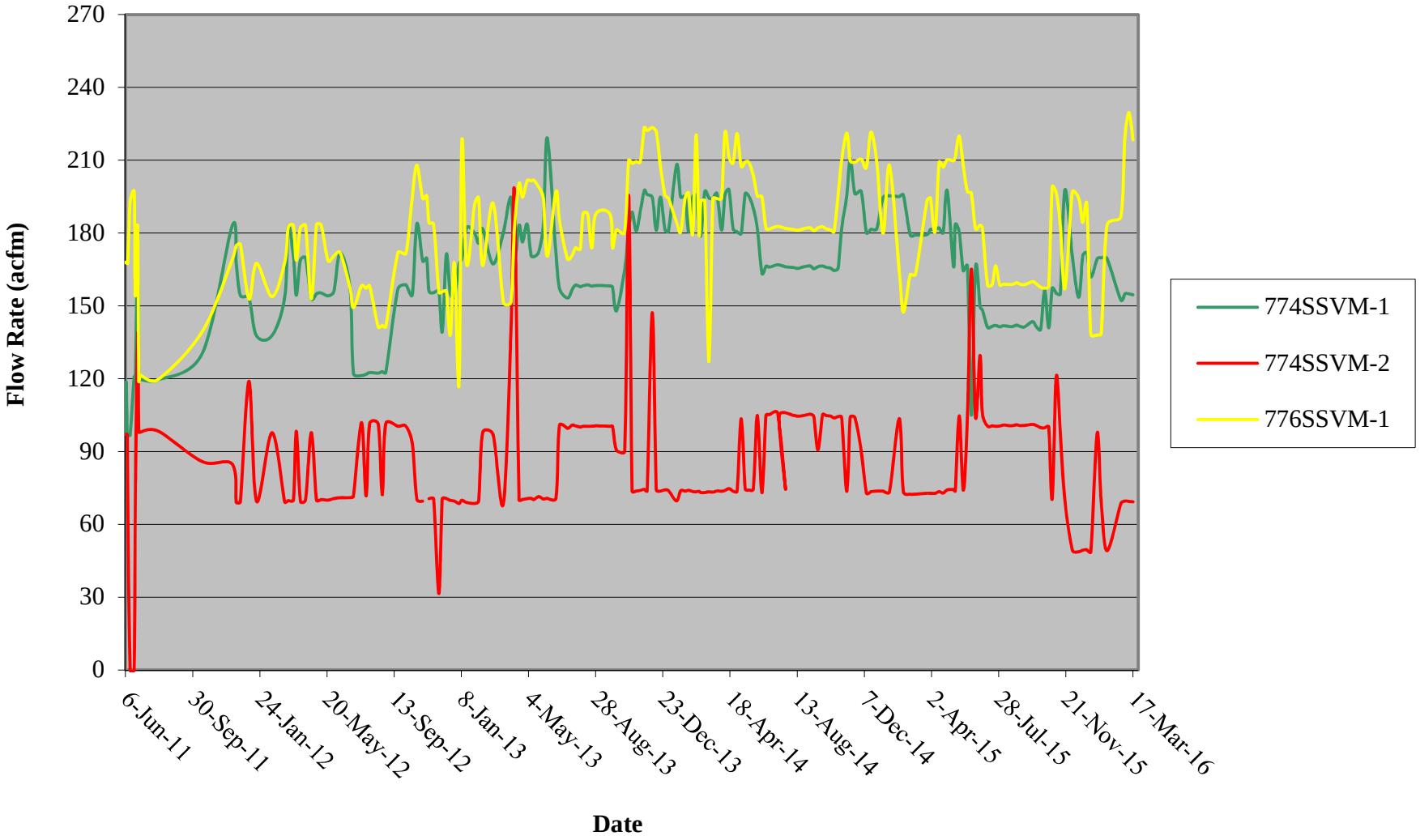


Figure 3-3
774SSVM-1, -2 and 776SSVM-1
Long Term Operation Vacuum
(June 2011 through March 2016)

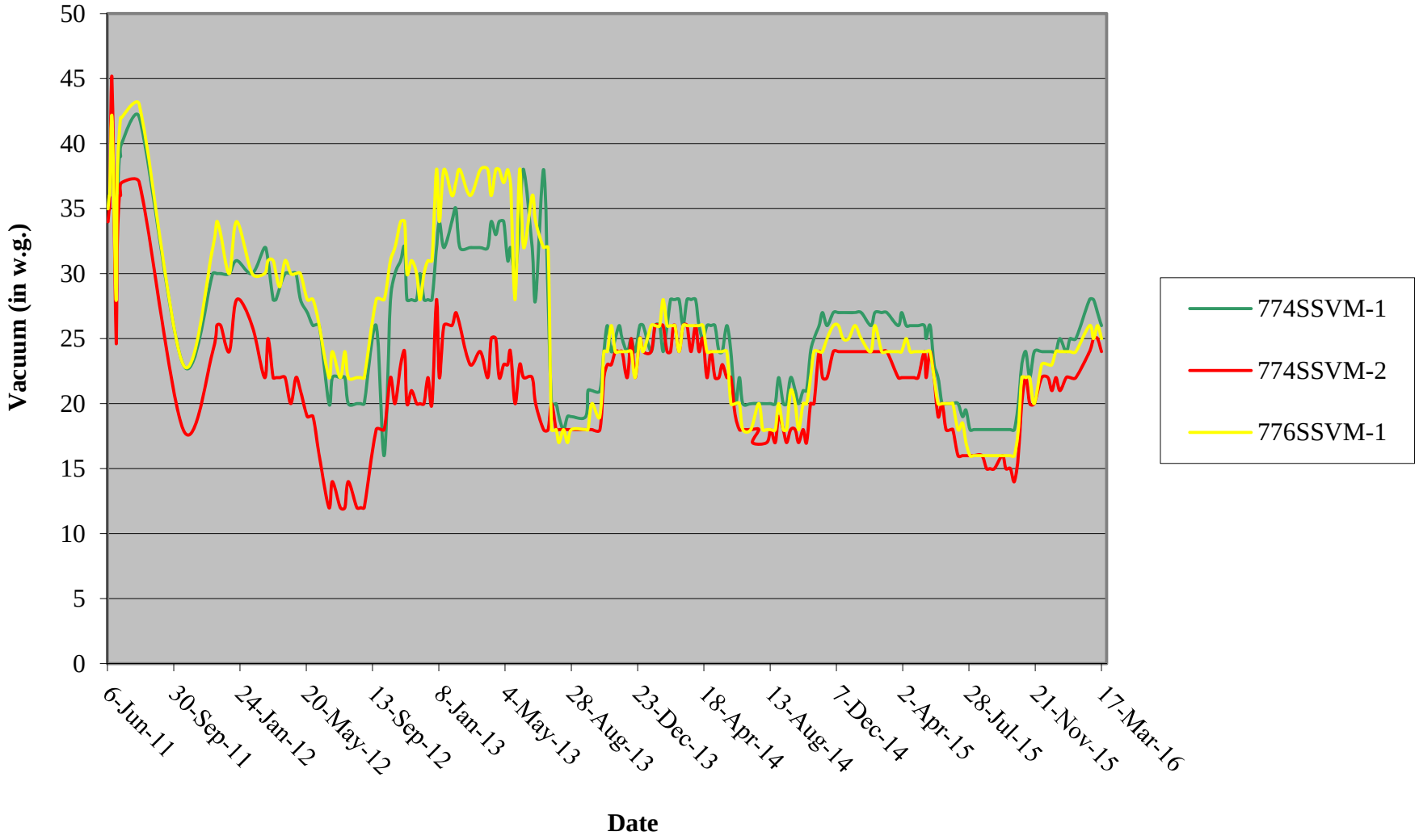
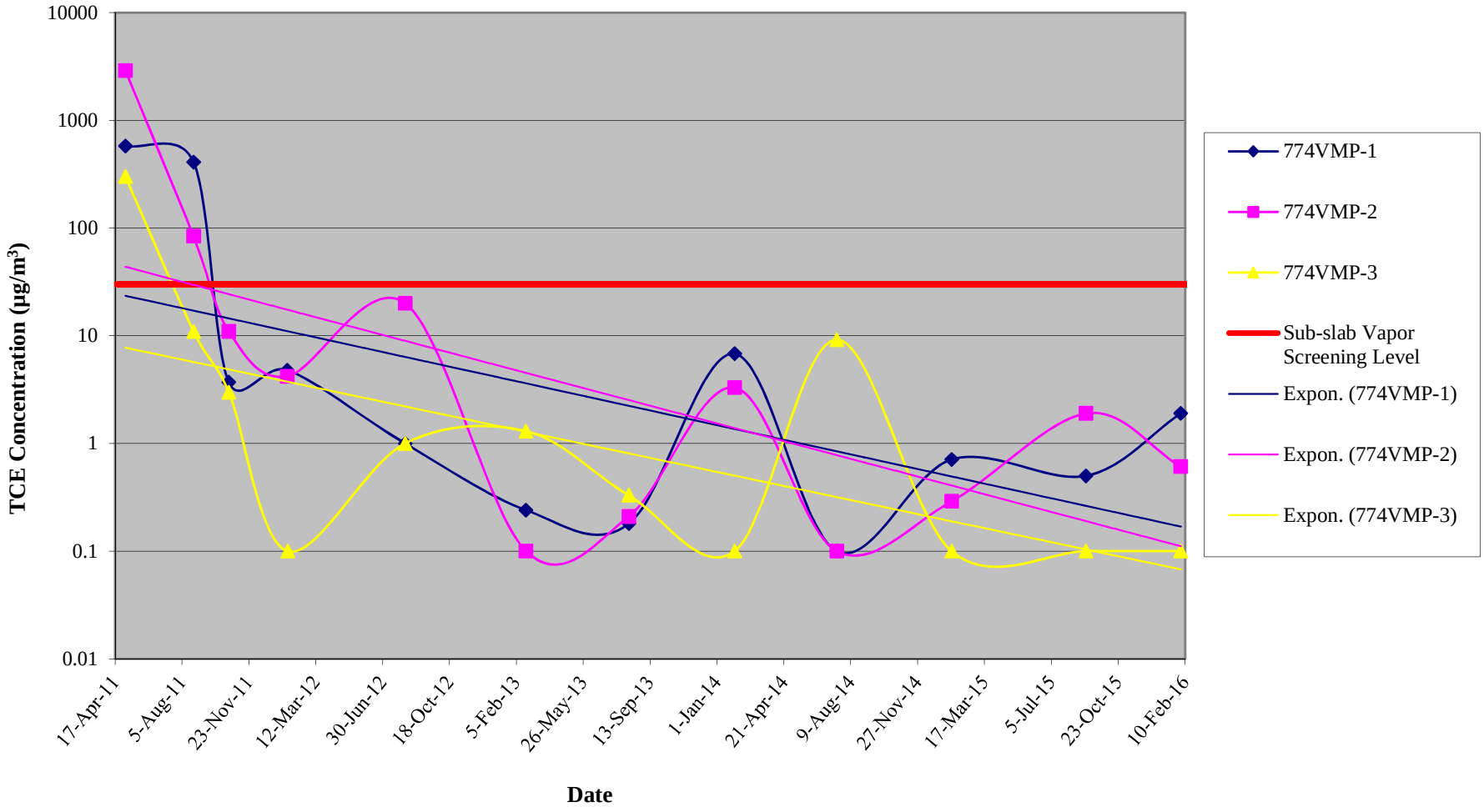
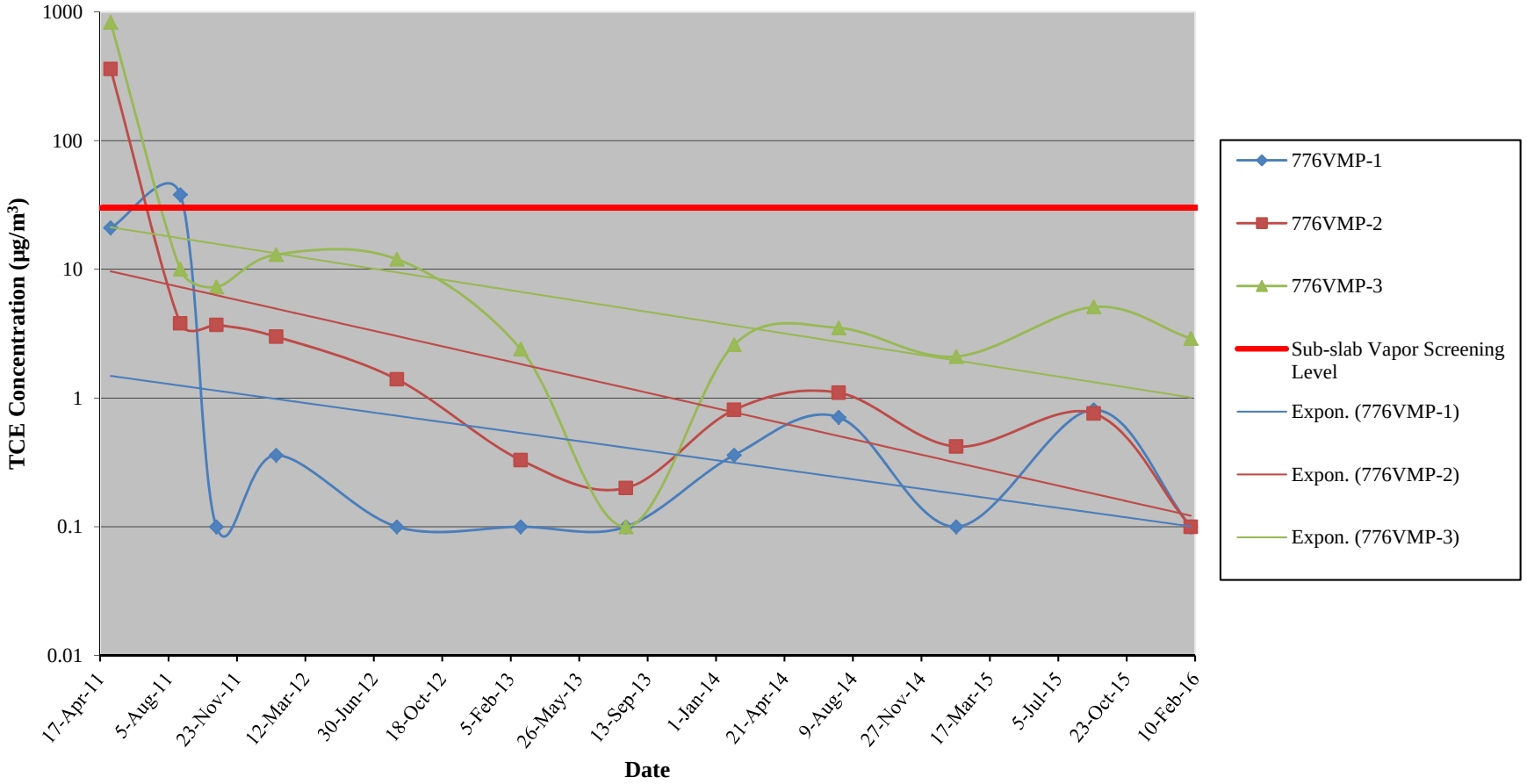


Figure 3-4
Sub-Slab TCE Trend Chart Building 774
(May 2011 through February 2016)

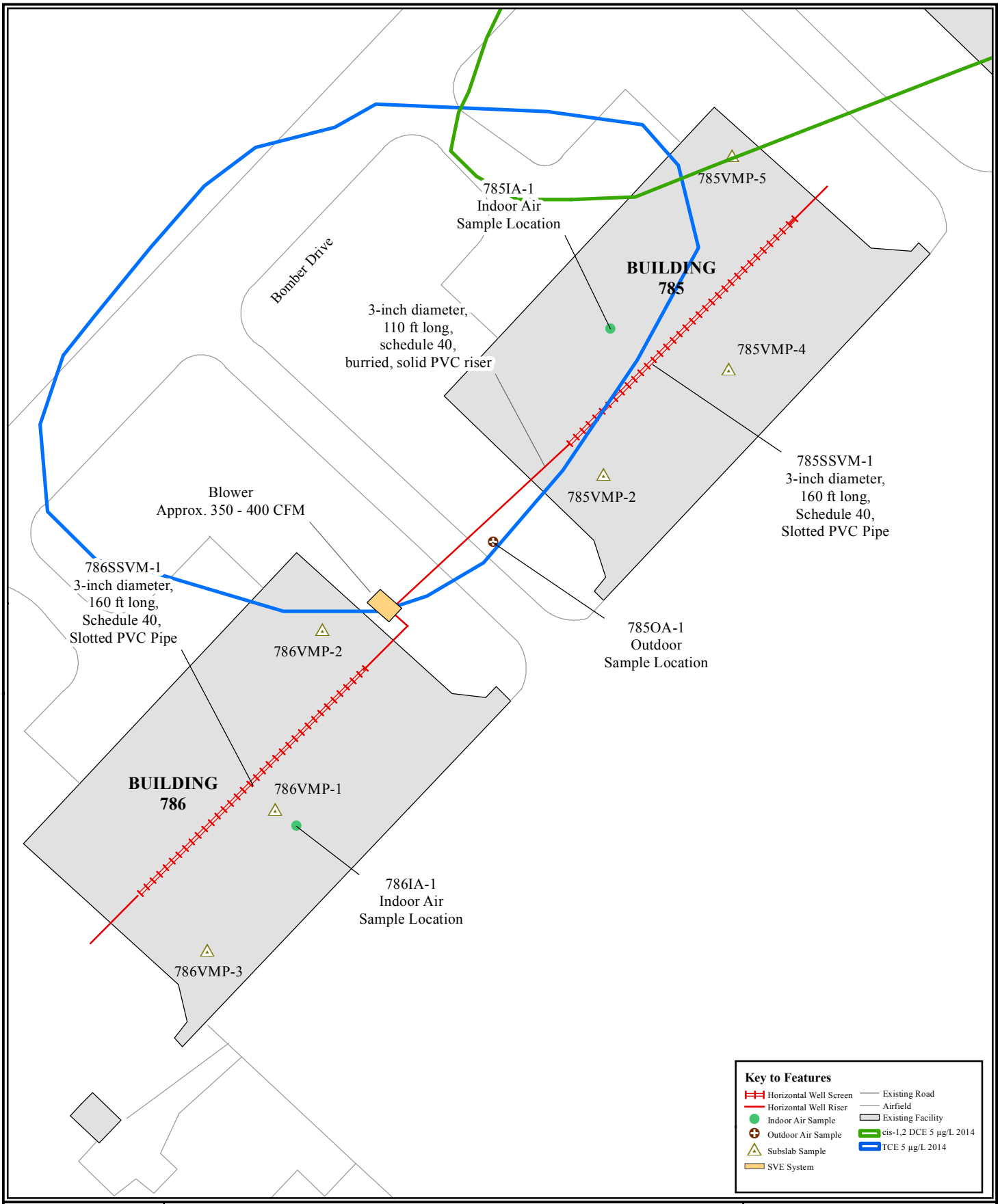


Note: Not detected results are plotted as 0.10 µg/m^3.

Figure 3-5
Sub-Slab TCE Trend Chart Building 776
(May 2011 through February 2016)



Note: Not detected results are plotted as 0.10 µg/m^3.



Site Location

Figure 3-6
Buildings 785 and 786
SSVM System

0 25 50 100
Feet

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Figure 3-7
785SSVM-1 and 786SSVM-1
Long Term Operation Flow Rate
(May 2011 through March 2016)

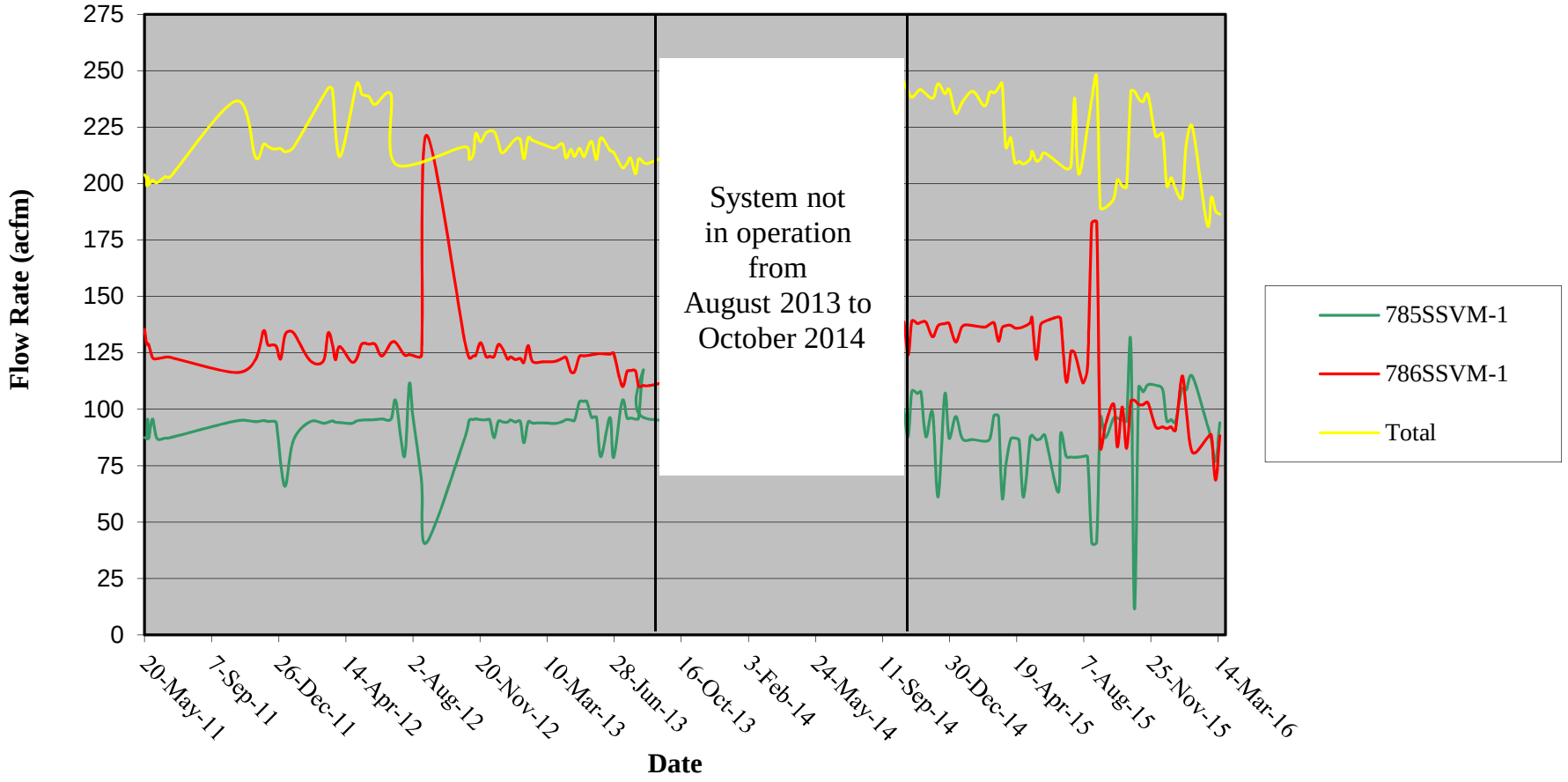


Figure 3-8
785SSVM-1 and 786SSVM-1
Long Term Operation Vacuum
(May 2011 through March 2016)

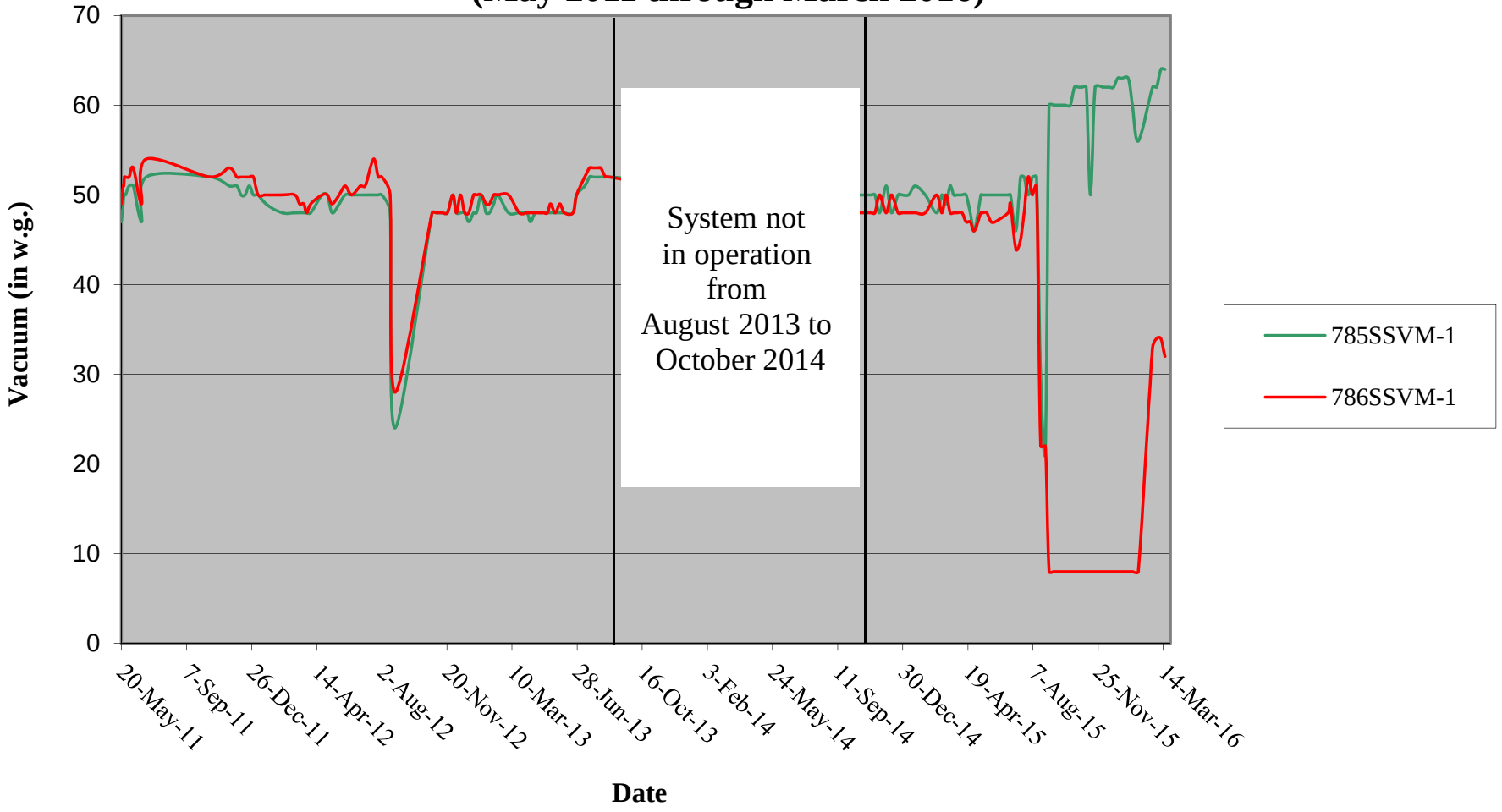
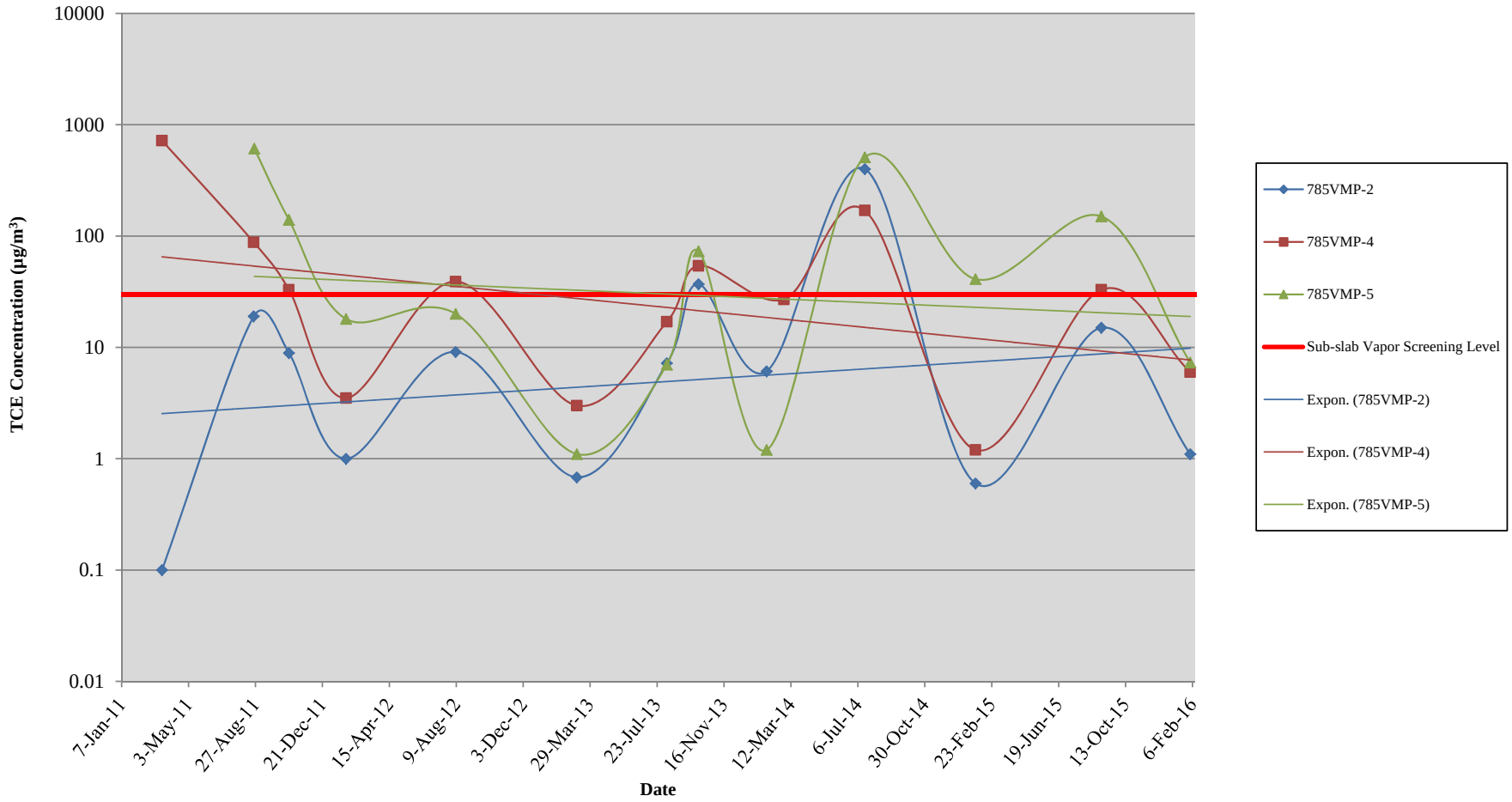
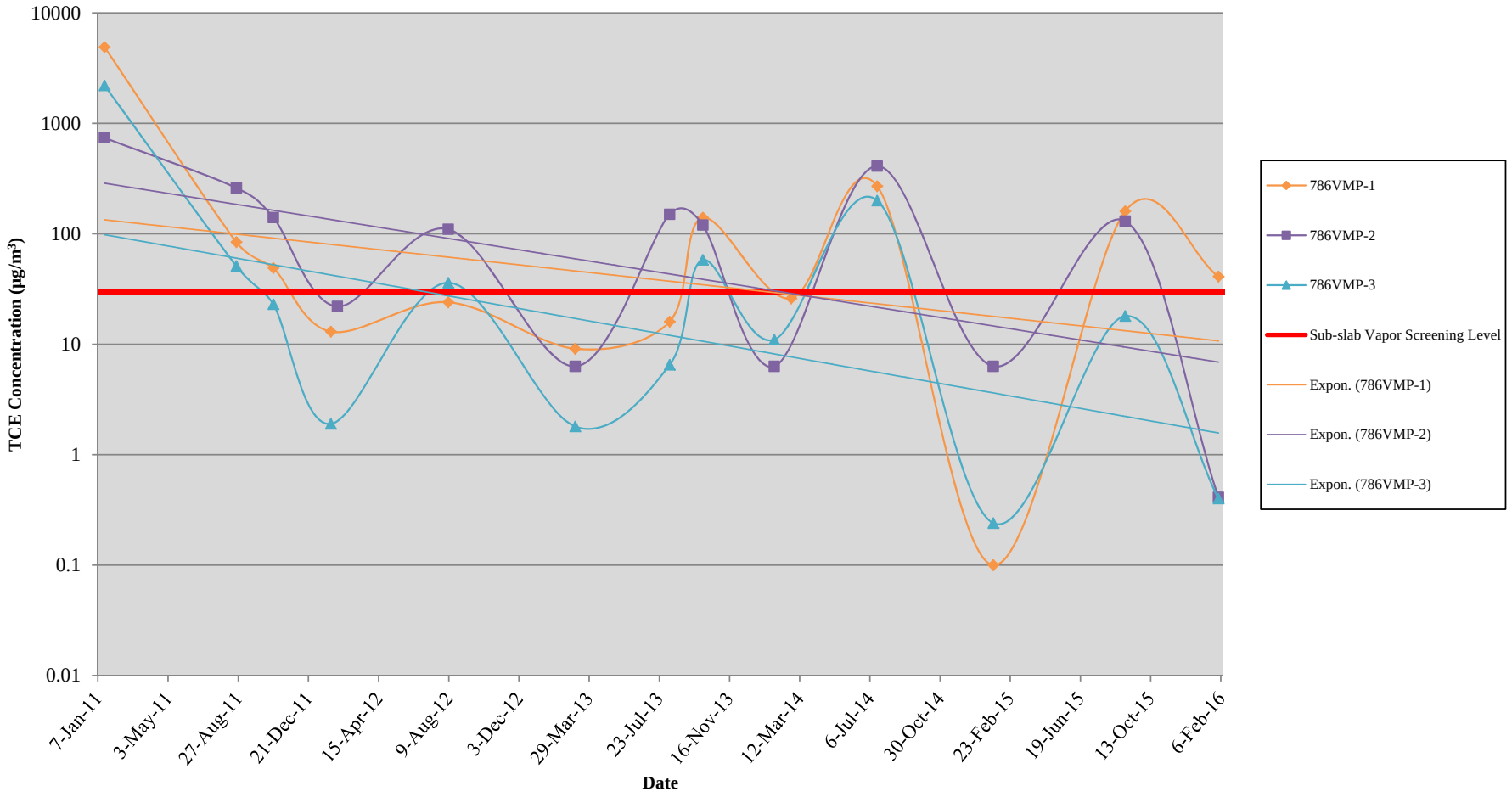


Figure 3-9
Sub-Slab TCE Trend Chart Building 785 (January 2011 through February 2016)



Note: Not detected results are plotted as 0.1 µg/m^3.

Figure 3-10
Sub-Slab TCE Trend Chart Building 786
(January 2011 through February 2016)



Tables

Table 2-1 - Building 774/776 AOC Short List Indoor and Outdoor Historical Analytical Results
December 2006/April 2008/May 2008

Sample Location	Indoor Air Screening Level ($\mu g/m^3$)	774IA-1			774IA-2			774IA-3	
Sample ID		774-IA1	774IA1BB	774IA1CA	774-IA2	774IA2BB	774IA2CA	774IA3BB	774IA3CA
Sample Type		Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Sample Date		20-Dec-2006	15-Apr-2008	29-May-2008	20-Dec-2006	15-Apr-2008	29-May-2008	15-Apr-2008	29-May-2008
Sample Depth (ft above ground)	5	5	5	5	5	5	5	5	5
Sample Collection Duration (hr)	12	8	12	12	8	12	12	12	12
Volatiles (TO-15) in $\mu g/m^3$									
cis-1,2-dichloroethene	102	U	1.57	0.685	U	U	U	U	U
trichloroethylene (TCE)	41	2.4	347	3.99	3.4	559	4.21	389	4.7
vinyl chloride	186	U	0.13	U	U	U	U	U	U

Notes:
U - Not detected.
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.

Table 2-1 - Building 774/776 AOC Short List Indoor and Outdoor Historical Analytical Results
December 2006/April 2008/May 2008

Sample Location	Indoor Air Screening Level (µg/m^3)	774IA-4		774IA-5	774OA-1		
Sample ID		**774IA4BB**	**774IA4CA**	**774IA5CA**	**774-OA1**	**774OA1BB**	**774OA1CA**
Sample Type		**Indoor**	**Indoor**	**Indoor**	**Outdoor**	**Outdoor**	**Outdoor**
Sample Date		**15-Apr-2008**	**29-May-2008**	**29-May-2008**	**20-Dec-2006**	**15-Apr-2008**	**29-May-2008**
Sample Depth (ft above ground)		**5**	**5**	**5**	**5**	**5**	**5**
Sample Collection Duration (hr)	**12**	**12**	**12**	**12**	**8**	**8**	**8**
Volatiles (TO-15) in µg/m^3							
cis-1,2-dichloroethene	102	U	U	U	U	U	U
trichloroethylene (TCE)	41	236	2.13	6.61	U	0.492	U
vinyl chloride	186	U	U	U	U	U	U

Notes:
U - Not detected.
µg/m^3: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.

Table 2-1 - Building 774/776 AOC Short List Indoor and Outdoor Historical Analytical Results
December 2006/April 2008

Sample Location	Indoor Air Screening Level ($\mu g/m^3$)	776IA-1		776IA-2		776IA-3	776IA-4
Sample ID		776-IA1	776IA1BB	776-IA2	776IA2BB	776IA3BB	776IA4BB
Sample Type		Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Sample Date		20-Dec-2006	15-Apr-2008	20-Dec-2006	15-Apr-2008	15-Apr-2008	20-Dec-2006
Sample Depth (ft above ground)		5	5	5	5	5	5
Sample Collection Duration (hr)	12	8	12	8	12	12	12
Volatiles (TO-15) in $\mu g/m^3$							
cis-1,2-dichloroethene	102	U	U	U	U	U	U
trichloroethylene (TCE)	41	4.4	3.28	2.9	2.35	2.51	2.62
vinyl chloride	186	U	U	U	U	U	U

Notes:

U - Not detected.

$\mu g/m^3$: microgram per cubic meter.

Exceedance of the indoor or outdoor initial benchmark.

Table 2-1 - Building 774/776 AOC Detected Sub-slab Vapor Historical Analytical Results
October 2006/April 2008

Sample Location	**Sub-slab Vapor Screening Level ($\mu g/m^3$)**	**774SSV-1**		**774SSV-2**		**774SSV-3**	**774SSV-4**
Sample ID		**774-SSV1**	**774SSV1BB**	**774-SSV2**	**774SSV2BB**	**774SSV3BB**	**774SSV4BB**
Sample Type		**SSV**	**SSV**	**SSV**	**SSV**	**SSV**	**SSV**
Sample Date		**24-Oct-2006**	**15-Apr-2008**	**24-Oct-2006**	**15-Apr-2008**	**15-Apr-2008**	**15-Apr-2008**
Sample Depth (ft bgs)		**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)	**12**	**8**	**12**	**8**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$							
cis-1,2-dichloroethene	1,022	U	U	U	U	0.64	0.60
trichloroethylene (TCE)	409	1,700	490	810	590	66	69
vinyl chloride	186	U	U	U	U	U	U

Notes:

U: Not detected.

$\mu g/m^3$: microgram per cubic meter.

Exceedance of the cancer screening value.

Table 2-1 - Building 774/776 AOC Detected Sub-slab Vapor Historical Analytical Results
October 2006/April 2008

Sample Location	**Sub-slab Vapor Screening Level ($\mu g/m^3$)**	**776SSV-1**		**776SSV-2**		**776SSV-3**	**776SSV-4**
Sample ID		**776-SSV1**	**776SSV1BB**	**776-SSV2**	**776SSV2BB**	**776SSV3BB**	**776SSV4BB**
Sample Type		**SSV**	**SSV**	**SSV**	**SSV**	**SSV**	**SSV**
Sample Date		**24-Oct-2006**	**15-Apr-2008**	**24-Oct-2006**	**15-Apr-2008**	**15-Apr-2008**	**15-Apr-2008**
Sample Depth (ft bgs)		**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)	**12**	**8**	**12**	**8**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$							
cis-1,2-dichloroethene	1,022	U	U	U	U	0.64	U
trichloroethylene (TCE)	409	3,000	6.9	700	110	120	230
vinyl chloride	186	U	U	U	U	U	U

Notes:

U: Not detected.

$\mu g/m^3$: microgram per cubic meter.

Exceedance of the cancer screening value.

Table 2-1 - Building 785/786 AOC Short List Indoor and Outdoor Historical Analytical Results
December 2006/April 2008

Sample Location	**Indoor Air Screening Level ($\mu g/m^3$)**	**785IA-1**	**785IA-2**	**785IA-3**
Sample ID		**785-IA1**	**785-IA2**	**785IA3BB**
Sample Type		**Indoor**	**Indoor**	**Indoor**
Sample Date		**20-Dec-2006**	**20-Dec-2006**	**17-Apr-2008**
Sample Depth (ft above ground)		**5**	**5**	**5**
Sample Collection Duration (hr)	**12**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$				
1,2,4-trimethylbenzene	NA	NA	NA	1.30
1,3,5-trimethylbenzene	NA	NA	NA	0.650 F
benzene	88	1.1	1.1	0.617
carbon disulfide	NA	U	U	U
carbon tetrachloride	NA	U	U	U
ethylbenzene	743	NA	NA	0.441 F
freon 11	NA	U	U	U
freon 113	NA	U	U	U
freon 12	NA	U	U	U
isopropyl alcohol	NA	U	U	U
m,p-xylene (sum of isomers)	292	NA	NA	1.28 F
methyl ethyl ketone	NA	U	U	U
methylene chloride	NA	U	U	U
Naphthalene	NA	NA	NA	1.33
o-xylene	292	NA	NA	0.485 F
tetrachloroethylene (PCE)	102	U	U	U
toluene	NA	NA	NA	2.72
trichloroethylene (TCE)	41	U	U	0.655
vinyl chloride	186	U	U	U

Notes:

U - Not detected.

F - The result was detected between the MDL and RL.

NA- Not Available

$\mu g/m^3$: microgram per cubic meter.

Table 2-1 - Building 786 AOC Short List Indoor and Outdoor Analytical Results
December 2006/April 2008

Sample Location	Indoor Air Screening Level ($\mu g/m^3$)	786IA-1	786IA-2	786IA-3	786OA-1	
Sample ID		786-IA1	786-IA2	786IA3BB	786-OA1	786OA1BB
Sample Type		Indoor	Indoor	Indoor	Outdoor	Outdoor
Sample Date		20-Dec-2006	20-Dec-2006	18-Apr-2008	20-Dec-2006	18-Apr-2008
Sample Depth (ft above ground)		5	5	5	5	5
Sample Collection Duration (hr)	12	8	8	12	12	12
Volatiles (TO-15) in $\mu g/m^3$						
1,2,4-trimethylbenzene	NA	NA	U	0.749	U	0.949
1,3,5-trimethylbenzene	NA	NA	U	U	U	U
benzene	88	1.2	1.2	0.747	0.96	0.617
cis-1,2-dichloroethene	102	U	U	U	U	U
ethylbenzene	743	NA	NA	U	NA	U
m,p-xylene (sum of isomers)	292	NA	NA	0.750 J	NA	0.883 J
Naphthalene	NA	NA	NA	1.01	NA	U
o-xylene	292	NA	NA	U	NA	0.441 J
tetrachloroethylene (pce)	102	U	0.896 F	U	U	U
toluene	NA	NA	NA	1.92	NA	1.49
trichloroethylene (tce)	41	0.43 J	U	U	U	U
vinyl chloride	186	U	U	U	U	U

Notes:

U - Not detected.

F - The result was detected between the MDL and RL.

NA- Not Available

$\mu g/m^3$: microgram per cubic meter.

J- The analyte was positively indentified; the quantitation is an estimation.

Table 2-1 - Building 785/786 AOC Detected Sub-slab Vapor Historical Analytical Results
October 2006/April 2008

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	785SSV-1		785SSV-2		785SSV-3	785SSV-4	785SSV-5	785SSV-6
Sample ID		B785-SSV1	785SSV1BB	B785-SSV2	785SSV2BB	785SSV3BB	785SSV4BB	785SSV5BB	785SSV6BB
Sample Type		SSV	SSV	SSV	SSV	SSV	SSV	SSV	SSV
Sample Date		24-Oct-2006	17-Apr-2008	24-Oct-2006	17-Apr-2008	17-Apr-2008	17-Apr-2008	17-Apr-2008	17-Apr-2008
Sample Depth (ft bgs)		1	1	1	1	1	1	1	1
Sample Collection Duration (hr)	12	8	12	8	12	12	12	12	12
Volatiles (TO-15) in $\mu g/m^3$									
1,1,1-trichloroethane	146,000	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	175	NA	1.9	NA	2.3	2.9	4.0	3.4	9.0
1,3,5-trimethylbenzene	175	U	0.70 J	U	0.90	1.1	1.6	1.6	3.5
acetone	NA	U	U	U	U	U	U	U	U
allyl chloride (3-chloropropene)	29	U	U	U	U	U	U	U	U
benzene	105	U	10	15	3.5	17	19	14	20
carbon disulfide	20,440	U	U	U	U	U	U	U	U
carbon tetrachloride	55	U	U	U	U	U	U	U	U
chloroform	36	U	U	U	U	U	U	U	U
chloromethane	818	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	1,022	75	13	U	0.69	0.48 J	14	0.52 J	56.00
cyclohexane	175,200	U	U	U	U	U	U	U	U
ethylbenzene	743	U	1.0	U	1.9	1.8	2.4	3.0	4.0
freon 11	20,440	U	U	U	U	U	U	U	U
freon 113	876,000	U	U	U	U	U	U	U	U
freon 12	5,840	U	U	U	U	U	U	U	U
m,p-xylene (sum of isomers)	2,920	U	2.7	U	4.4	6.3	8.8	10	12 J
methyl ethyl ketone	146,000	U	U	U	U	U	U	U	U
methylene chloride	1,740	U	U	U	U	U	U	U	U
Naphthalene	NA	NA	1.2	NA	1.9	1.2	1.4	1.8	1.6
o-xylene	2,920	U	1.1	U	1.6	1.9	2.8	4.9	3.3
tetrachloroethylene (PCE)	139	U	U	U	U	U	U	U	U
tetrahydrofuran	NA	U	U	U	U	U	U	U	U
toluene	146,000	60	5.5	13	5.1	12	18	64	28
trans-1,2-dichloroethene	NA	U	U		U	U	U	U	U
trichloroethylene (TCE)	409	11,000	110	2,300	430	220	11	180	2200
vinyl chloride	186	U	U	U	U	U	U	U	U

Notes:

U - Not detected.

F- The result was detected between the MDL and RL.

J- The analyte was positvely identified, but the quantitation is an approximation.

NA- Not Available

$\mu g/m^3$: microgram per cubic meter.

Exceedance of the indoor or outdoor initial benchmark.

Table 2-1 - Building 785/786 AOC Detected Sub-slab Vapor Historical Analytical Results
October 2006/April 2008

Sample Location		**786SSV-1**		**786SSV-2**		**786SSV-3**	**786SSV-4**	**786SSV-5**	**786SSV-6**
Sample ID	**Sub-slab Vapor Screening Level ($\mu g/m^3$)**	**B786-SSV1**	**786SSV1BB**	**B786-SSV2**	**786SSV2BB**	**786SSV3BB**	**786SSV4BB**	**786SSV5BB**	**786SSV6BB**
Sample Type		**SSV**	**SSV**	**SSV**	**SSV**	**SSV**	**SSV**	**SSV**	**SSV**
Sample Date		**24-Oct-2006**	**18-Apr-2008**	**24-Oct-2006**	**18-Apr-2008**	**18-Apr-2008**	**18-Apr-2008**	**18-Apr-2008**	**18-Apr-2008**
Sample Depth (ft bgs)		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)	**12**	**8**	**12**	**8**	**12**	**12**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$									
1,2,4-trimethylbenzene	175	NA	3.9	NA	4.8	4.5	4.2	170	4.8
benzene	105	U	29	24 J	21	21	35	36	16
cis-1,2-dichloroethene	1,022	480	230	U	12	1.2	U	3.1	5.4
ethylbenzene	743	U	2.3	U	3.1	2.3	2.9	29	2.3
m,p-xylene (sum of isomers)	2,920	U	9.0	U	8.4	8.9	8.4	91	9.2
Naphthalene	NA	NA	1.3	NA	2.1	2.6	1.2	27	1.5
o-xylene	2,920	U	3.0	U	3.9	2.8	3.8	57	3.0
tetrachloroethylene (PCE)	139	2200	70	U	0.97	U	U	57	23
toluene	146,000	U	21	U	14	12	20	75	15
trichloroethylene (TCE)	409	81,000	19,000	4,700 J	1,500	69	320	3,600	6,500
vinyl chloride	186	U	U	U	U	U	U	U	U

Notes:

U - Not detected.

F- The result was detected between the MDL and RL.

J- The analyte was positvely identified, but the quantitation is an approximation.

NA- Not Available

$\mu g/m^3$: microgram per cubic meter.

Exceedance of the indoor or outdoor initial benchmark.

Table 3-1
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

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			774VMP-1											
Sample ID	Sub-slab Vapor Screening Level* ($\mu g/m^3$)	Indoor Air Screening Level* ($\mu g/m^3$)	774VMP0101AA	774VMP0101AB	774VMP0101AC	774VMP0101AD	774VMP0101AG	774VMP0101HA	774VMP0101IA	774VMP0101JA	774VMP0101KA	774VMP0101MA	774VMP0101NA	774VMP0101PA
Sample Type			sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab
Sample Date			4-May-2011	24-Aug-2011	21-Oct-2011	25-Jan-2012	6-Aug-2012	21-Feb-2013	8-Aug-2013	30-Jan-2014	17-Jul-2014	22-Jan-2015	31-Aug-2015	3-Feb-2016
Sample Depth (ft bgs / ags)			1	1	1	1	1	1	1	1	1	1	1	1
Sample Collection Duration (hr)			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	U	U	1.1	U	U	22,000	U	0.84 J	U	0.2 J	U	0.29 J
1,1-dichloroethane	77	7.7	0.53 J	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	0.27 J	U	U
1,2,4-trimethylbenzene	310	31	6.7	3.2	U	12	1.8	1.3 J	U	U	U	0.35 J	1.8	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	0.37 J	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	2.5	0.9	U	3.2 J	0.47 J	0.52 J	U	U	U	U	0.49 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	1.4 J	0.40 J	U	U	U	U	U	0.65 J	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	0.31 J	U	U	0.17 J	1 J	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	1.9	U	2.6 J	2.2	15	1.1	U	U	U	0.18 J	U
4-ethyltoluene	NA	NA	4.6	1.2	U	3.2 J	0.56 J	0.26 J	U	U	U	0.14 J	0.52 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.28 J	U	U	U	U	U	0.81 J	U
acetone	1,400,000	140,000	54	31	18	64	30 B	86	28	43 J	U	64	20	22
benzene	16	1.6	1.6	4.3	U	U	0.44 J	1.3	0.64	0.49 J	U	0.89	0.43 J	0.45 J
carbon disulfide	31,000	3,100	U	0.66	U	U	U	0.42 J	1.3 J	U	U	0.89 J	9	0.71 J
carbon tetrachloride	20	2	1	0.70 J	U	U	0.50 J	0.76 J	0.71 J	0.55 J	U	0.57 J	0.52 J	0.39 J
chlorobenzene	2,200	220	U	0.51 J	U	U	U	U	0.15 J	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	18	9.1	U	U	0.38 J	U	0.42 J	0.82 J	U	U	0.49 J	U
chloromethane	3,900	390	3.5	U	U	U	1.1	2.1	1.2	1.5	U	1.3	1.1	0.95 J
cis-1,2-dichloroethene	NA	NA	0.89	0.77	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	1.1 J	U	U	0.42 J	U	U	U	0.49 J	U
cyclohexane	260,000	26,000	4.8	7.8	2.4	U	2.3	18	0.91	1.1	U	1.1	0.59 J	1.3
ethyl acetate	3,100	310	U	U	0.77 J	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	1.4	2.8	U	4.1 J	0.95	1.8	0.97	U	U	0.25 J	6.2	0.22 J
freon 11 (trichlorofluoromethane)	31,000	3,100	31	19	2.0	1.9 J	2.3	2 J	3.7	2.4	15 J	1.6	2.1	5.3
freon 113 (freon TF)	1,300,000	130,000	U	0.78 J	U	U	0.63 J	0.65 J	0.50 J	0.62 J	U	0.97 J	0.54 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.1	2.8	2.5	2.4 J	2.8	3.4 J	2.3 J	3.1	2.8 J	2.5	2.3 J	1.7 J
freon 22	2,200,000	220,000	NA	NA	NA	300	83	7.3 J	17	8.2	1100	5.1	U	3.5
heptane	NA	NA	U	3.7	U	U	0.68 J	18	0.57 J	0.51 J	U	0.44 J	U	0.51 J
hexane	31,000	3,100	U	7.9	U	5.1	1.2	27	0.67 J	0.71	U	0.51 J	0.21 J	0.5 J
isopropyl alcohol	NA	NA	U	U	2.8	17 J	22	65	15	4.0 J	9.0 J	13	7.4 J	4.5 J
m,p-xylene (sum of isomers)	4,400	440	5.3	9	U	12	3.1	6.4	2.5	U	U	0.56 J	6.3	0.62 J
methyl butyl ketone	NA	NA	U	U	U	U	0.43 J	U	0.58 J	U	U	1.2 J	U	0.56 J
methyl ethyl ketone	220,000	22,000	1.7	4.9	1.7	1.9 J	3.2 B	6.1	3.2	2.5	U	7.2	2.6	3.4
methyl isobutyl ketone	130,000	13,000	U	U	U	U	1.1 J	U	0.61 J	0.40 J	U	1.2 J	0.8 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	0.99	0.46 J	U	0.72 J	0.77 J	0.50 J	0.69 J	U	1.3 J	0.53 J	2.3
Naphthalene	3.6	0.36	U	U	U	U	0.60 J	1.1 J	U	U	U	U	0.54 J	U
n-Butane	NA	NA	NA	NA	NA	U	1.4	3.7	1.0 J	12	U	1.9	1.1 J	1.9
n-Propylbenzene	44,000	4,400	NA	NA	NA	2.2 J	0.36 J	U	U	U	U	U	0.45 J	U
o-xylene	4,400	440	2.4	2.4	U	7.9	1.2	2	0.63 J	U	U	0.27 J	2.3	0.26 J
styrene	44,000	4,400	U	U	U	U	0.48 J	0.41 J	U	U	U	0.12 J	0.54 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	U	1.4 J	1.4 J	U	U	0.96 J	0.77 J	U
tetrachloroethylene (pce)	470	47	0.97 J	1	U	U	U	U	U	U	U	U	U	0.2 J
tetrahydrofuran	NA	NA	3.1	U	U	U	2.2 J	U	U	U	U	0.75 J	U	U
toluene	220,000	22,000	1.6	17	2.1	5.2	4.2	7.4	3.3	0.69 J	1.4 J	1	3.4	1.5
trichloroethylene (tce)	30	3	580	410	3.7	4.8 J	1.0 J	0.24 J	0.18 J	6.8	U	0.71 J	0.5 J	1.9
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* ($\mu g/m^3$)	Indoor Air Screening Level* ($\mu g/m^3$)	774VMP-2											
Sample ID			**774VMP0201AA**	**774VMP0201AB**	**774VMP0201AC**	**774VMP0201AD**	**774VMP0201AG**	**774VMP0201HA**	**774VMP0201IA**	**774VMP0201JA**	**774VMP0201KA**	**774VMP0201MA**	**774VMP0201NA**	**774VMP0201PA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**4-May-2011**	**24-Aug-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**8-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	85	2.4	U	U	2.6	U	U	U	U	U	0.66 JM	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	12	4	0.65 J	6.0 J	1.7	0.45 J	0.34 J	0.31 J	U	0.28 J	1.8	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	3.9	2	U	U	0.43 J	U	U	U	U	0.11 J	0.5 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	0.37 J	U	U	U	U	U	0.71 J	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	2.2	U	2.1 J	U	12	U	0.26 J	U	U	0.21 J	U
4-ethyltoluene	NA	NA	8.5	1.5	U	U	0.52 J	U	U	U	U	U	0.64 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.34 J	U	U	0.47 J	U	U	0.28 J	U
acetone	1,400,000	140,000	53	U	11	110 J	43	82	22	47 J	U	17	29	8.1 J
benzene	16	1.6	6	4.4	U	U	0.53 J	1.2	0.34 J	0.79	U	0.74	0.41 J	0.48 J
carbon disulfide	31,000	3,100	0.95	0.6	U	U	1.2 J	U	U	U	U	U	0.19 JM	U
carbon tetrachloride	20	2	1.4	0.70 J	U	U	0.59 J	U	1.0 J	0.78 J	U	0.54 J	0.67 J	0.69 J
chlorobenzene	2,200	220	U	0.56 J	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	45	1.8	0.69 J	U	0.69 J	U	0.76 J	1.1	U	0.23 J	0.58 J	U
chloromethane	3,900	390	U	U	U	U	0.77 J	1.9	1.3	1.0 J	U	1.1	0.82 J	U
cis-1,2-dichloroethene	NA	NA	0.73	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	0.43 J	U
cyclohexane	260,000	26,000	5.9	10	3.5	U	1.8	12	1.3	1.6 J	U	0.98	0.19 JM	U
ethyl acetate	3,100	310	U	0.62 J	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	1.6	3.2	U	1.9 J	0.94	1.5	0.31 J	0.25 J	U	0.22 J	5.2	U
freon 11 (trichlorofluoromethane)	31,000	3,100	400	22	2.2	U	3.8	1.8	7.3	3.5	14 J	1.9	3	4.3
freon 113 (freon TF)	1,300,000	130,000	0.86 J	0.78 J	U	U	0.61 J	U	0.51 J	0.82 J	U	0.82 J	0.66 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.8	2.8	2.1	3.1 J	2.5	2.9	2.4 J	3.4	U	2.6	2.9	1.9 J
freon 22	2,200,000	220,000	NA	NA	NA	750	130	6.7 J	27	U	1300 J	U	U	3
heptane	NA	NA	U	4.2	6.2	U	0.88	18	0.32 J	0.75 J	U	0.38 J	0.29 J	U
hexane	31,000	3,100	U	8.2	U	U	0.77	23	0.49 J	0.83	U	0.55 J	0.37 J	0.36 J
isopropyl alcohol	NA	NA	4.4	15	2.4	20 J	30	39	44	7.2 J	12 J	9.3 J	7.1 J	2.7 J
m,p-xylene (sum of isomers)	4,400	440	5.1	12	0.53 J	5.5 J	3.1	4.7	0.89 J	0.63 J	U	0.57 J	5.7	U
methyl butyl ketone	NA	NA	U	U	U	U	U	U	0.19 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	4.3	3	U	U	3.4 B	5.4	1.2 J	2.0	U	U	1.9	U
methyl isobutyl ketone	130,000	13,000	U	U	U	U	1.3 J	U	0.44 J	0.45 J	U	U	U	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	U	U	U	0.59 J	U	0.48 J	1.1 J	U	0.72 J	0.45 J	1.3 J
Naphthalene	3.6	0.36	U	U	U	U	1.9 J	U	U	U	U	U	0.82 J	U
n-Butane	NA	NA	NA	NA	NA	U	1.2 J	3.6	4.7	18 J	U	3.4	1.9	1.6
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	0.31 J	U	U	U	U	U	0.46 J	U
o-xylene	4,400	440	2.2	2.8	U	3.6 J	1.1	1.2	0.34 J	0.23 J	U	0.2 J	2.2	U
styrene	44,000	4,400	U	U	U	U	0.44 J	U	0.18 J	U	U	0.078 J	0.55 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	0.63 J	U
tetrachloroethylene (pce)	470	47	2.8	U	U	U	U	U	U	0.25 J	U	U	U	U
tetrahydrofuran	NA	NA	6.7	U	U	U	1.4 J	U	U	U	U	U	U	U
toluene	220,000	22,000	3.2	17	1.4	4.8 J	3.9	4.7	1.4	1.2 J	U	0.91	4.1	0.64 J
trichloroethylene (tce)	30	3	2,900	84	11	4.2 J	20	U	0.21 J	3.3 J	U	0.29 J	1.9	0.61 J
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			774VMP-3											
Sample ID	**Sub-slab Vapor Screening Level* ($\mu g/m^3$)**	**Indoor Air Screening Level* ($\mu g/m^3$)**	**774VMP0301AA**	**774VMP0301AB**	**774VMP0301AC**	**774VMW0301AD**	**774VMP0301AG**	**774VMP0301HA**	**774VMP0301IA**	**774VMP0301JA**	**774VMP0301KA**	**774VMP0301MA**	**774VMP0301NA**	**774VMP0301PA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**4-May-2011**	**24-Aug-2011**	**21-Oct-2011**	**26-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**8-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	12	0.67 J	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	6.3	4.1	0.95	U	0.35 J	1.4 J	U	U	U	U	U	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	2.2	1.8	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	2.3	U	U	U	13	0.22 J	U	U	U	U	U
4-ethyltoluene	NA	NA	4.2	1.6	U	U	U	U	U	U	U	U	U	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.27 J	1.8 J	U	U	U	U	U	U
acetone	1,400,000	140,000	17	19	12	30 J	25 B	94	11 J	U	170 J	8 J	U	U
benzene	16	1.6	2.5	3.8	0.39 J	U	0.38 J	2.9 J	0.34 J	U	5.8 J	1.4 J	U	U
carbon disulfide	31,000	3,100	0.95	1.4	U	U	0.32 J	9	0.25 J	U	U	U	U	U
carbon tetrachloride	20	2	0.45	U	U	U	U	U	U	U	U	U	380	U
chlorobenzene	2,200	220	U	0.84	U	U	U	U	0.10 J	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	9.1	U	U	U	0.22 J	U	0.16 J	U	U	U	U	U
chloromethane	3,900	390	U	U	U	U	0.43 J	1.3 J	0.79 J	U	U	1.3 J	U	U
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	6.2	11	4.8	U	0.83	12	0.94	U	12 J	0.44 J	U	U
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	1.5	3.6	U	U	0.45 J	4 J	0.26 J	U	2.5 J	U	U	U
freon 11 (trichlorofluoromethane)	31,000	3,100	630	120	9.5	21	15	5.4 J	40	15 J	370	8.5	13 J	32 D
freon 113 (freon TF)	1,300,000	130,000	0.86 J	0.78 J	U	U	0.51 J	U	0.45 J	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	4,400	440	U	2.6	2.4	3.5 J	2.4 J	3.5 J	2.1 J	U	24 J	3 J	U	U
freon 22	2,200,000	220,000	NA	NA	NA	880	26	11 J	11	U	4000	3.1 J	U	9.1 J
heptane	NA	NA	U	3.5	U	U	0.72 J	17	0.23 J	U	U	U	U	U
hexane	31,000	3,100	U	7.5	U	U	1.6	20	0.37 J	U	U	U	U	U
isopropyl alcohol	NA	NA	U	U	U	25 J	4.2 J	65	7.4 J	U	110 J	3 J	8.9 J	U
m,p-xylene (sum of isomers)	4,400	440	4.5	12	1.2 J	U	1.2 J	15	0.66 J	U	5.6 J	U	U	U
methyl butyl ketone	NA	NA	U	U	U	U	0.81 J	U	U	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	U	U	U	7.6 J	3.8 B	13	U	U	U	U	U	U
methyl isobutyl ketone	130,000	13,000	U	U	U	U	0.37 J	1.1 J	0.37 J	U	U	U	U	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	U	U	U	2.1	2.3 J	0.51 J	U	U	U	U	U
Naphthalene	3.6	0.36	U	U	U	U	0.68 J	U	U	U	U	U	U	U
n-Butane	NA	NA	NA	NA	NA	U	2.7	3.2 J	0.96 J	U	U	2.1 J	U	U
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	U	U	U	U	U	U	U	U
o-xylene	4,400	440	2.2	3.2	U	U	0.38 J	3.7 J	0.26 J	U	U	U	U	U
styrene	44,000	4,400	U	1.4	U	U	0.31 J	U	0.23 J	U	5.0 J	U	U	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.3 J	U	0.50 J	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	U	U	U	0.24 J	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	U	12 J	1.3 J	U	U	U	U	U	U	U
toluene	220,000	22,000	2.3	16	2.2	1.3 J	4.0	12.0	1.1	U	8.6 J	0.68 J	U	U
trichloroethylene (tce)	30	3	300	11	3.0	U	1.0 J	1.3 J	0.33 J	U	9.2 J	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			774-IA											
Sample ID	Sub-slab Vapor Screening Level* ($\mu g/m^3$)	Indoor Air Screening Level* ($\mu g/m^3$)	774IA1AD	774IA1AE	774IA1AF	774IA1AG	774IA1AH	774IA1IA	774IA1JA	774IA1KA	774IA1LA	774IA1MA	774IA1NA	774IA1PA
Sample Type			Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Sample Date			5-May-2011	6-Sep-2011	21-Oct-2011	25-Jan-2012	6-Aug-12	21-Feb-13	8-Aug-13	30-Jan-14	17-Jul-14	22-Jan-15	31-Aug-15	3-Feb-16
Sample Depth (ft bgs / ags)			5	5	5	5	5	5	5	5	5	5	5	5
Sample Collection Duration (hr)			12	12	12	12	12	12	12	12	12	12	12	12
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	2.7	1.6	0.65 J	U	U	U	0.28 J	0.32 J	0.20 J	U	0.13 J	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	0.27 J	U	U	U	U	U	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	0.46 J	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	1.6 J	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	U	U	U	U	0.55 J	0.24 J	U	U	U	U	U
4-ethyltoluene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
acetone	1,400,000	140,000	52	34	19	28 J	32 B	44	18	47	18 J	11 J	12	17
benzene	16	1.6	1.3	U	U	U	U	0.69	0.31 J	0.80	0.24 J	0.68	0.32 J	0.49 J
carbon disulfide	31,000	3,100	0.66	U	U	U	U	U	U	U	U	U	U	U
carbon tetrachloride	20	2	0.51	0.90 J	U	U	0.45 J	0.46 J	0.44 J	0.53 J	0.49 J	0.45 J	0.43 J	0.39 J
chlorobenzene	2,200	220	0.7	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	0.2 J	U	U	U	U	U	U
chloroform	5.3	0.53	0.55 J	U	U	U	0.28 J	0.32 J	0.18 J	0.57 J	U	U	0.18 J	U
chloromethane	3,900	390	U	1.2	U	1.7 J	1.2	2.7	1.0 J	1.7	1.2 J	1.1	1	1.4
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	0.21 J	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	1.3	U	U	U	U	0.57 J	0.14 J	U	U	U	U	U
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	0.84	0.57 J	U	U	U	0.19 J	0.24 J	0.26 J	0.23 J	0.15 J	0.19 J	0.15 J
freon 11 (trichlorofluoromethane)	31,000	3,100	33	77	4.2	8.9	5.0	3.2	40	16	18	2.2	2.5	38
freon 113 (freon TF)	1,300,000	130,000	U	0.86 J	U	U	0.56 J	0.72 J	0.55 J	0.65 J	U	0.67 J	0.49 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	U	2.8	2.4	U	2.4 J	3	2.2 J	3.0	2.9 J	2.6	2.4 J	2.2 J
freon 22	2,200,000	220,000	NA	NA	NA	350	40	10 J	11	13	330	2	U	6.8
heptane	NA	NA	1.7	U	U	U	U	0.66 J	0.21 J	0.51 J	U	U	U	U
hexane	31,000	3,100	33	U	U	U	U	1.9	0.42 J	0.74	0.34 J	U	0.28 J	0.56 J
isopropyl alcohol	NA	NA	11	32	9.9	29 J	8.3 J	26	14	26	11 J	1.6 J	U	3 J
m,p-xylene (sum of isomers)	4,400	440	2.4	1.2 J	0.57 J	U	U	0.44 J	0.65 J	0.61 J	0.45 J	U	0.5 J	U
methyl butyl ketone	NA	NA	U	U	U	U	0.62 J	U	0.61 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	U	2.8	U	2.5 J	2.2 B	15	2.6	1.6	3.5 J	2.1	0.93 J	1.9
methyl isobutyl ketone	130,000	13,000	U	U	U	U	0.37 J	1 J	0.35 J	0.30 J	U	U	U	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	0.93 J	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	1.1	U	U	0.45 J	1 J	0.59 J	0.76 J	U	0.88 J	0.84 J	2.7
Naphthalene	3.6	0.36	U	U	U	U	U	U	U	U	U	U	0.48 J	U
n-Butane	NA	NA	NA	NA	NA	U	0.32 J	2.5	1.0 J	18	U	2.1	1.1 J	1.4
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	U	U	U	U	U	U	U	U
o-xylene	4,400	440	0.71	0.49 J	U	U	U	0.18 J	0.27 J	0.23 J	U	U	0.18 J	U
styrene	44,000	4,400	0.78	0.56 J	U	U	U	0.18 J	0.24 J	0.16 J	0.43 J	U	0.13 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	U	1.7 J	0.69 J	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	U	U	U	U	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
toluene	220,000	22,000	5.1	2.5	1.3	0.76 J	0.47 J	0.71 J	1	1.2	0.65 J	0.58 J	0.85	1.2
trichloroethylene (tce)	30	3	4.4	2.3	0.87	1.5 J	0.35 J	0.22 J	U	0.34 J	U	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	Indoor Air Screening Level ($\mu g/m^3$)	776VMP-1											
Sample ID			**776VMP0101AA**	**776VMP0101AB**	**776VMP0101AC**	**776VMP0101AD**	**776VMP0101AG**	**776VMP0101HA**	**776VMP0101IA**	**776VMP0101JA**	**776VMP0101KA**	**776VMP0101MA**	**776VMP0101NA**	**776VMP0101PA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**4-May-2011**	**6-Sep-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**9-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	4.5	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-tetrachloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	9.0	3.5	U	U	0.46 J	0.66 J	0.27 J	U	U	1.3	2.3	U
1,2-dichloroethane	4.7	0.47	U	0.45 J	U	U	0.32 J	U	U	U	U	U	0.22 J	U
1,3,5-trimethylbenzene	NA	NA	3.8	1.6	U	U	U	U	U	U	U	0.4 J	0.66 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	1 J	U
1,4-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	0.38 J	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	0.99 J	12 J	U
2,2,4-trimethylpentane	NA	NA	U	U	0.47 J	U	U	6.5	0.18 J	U	U	U	U	U
4-ethyltoluene	NA	NA	7.2	0.9	U	U	U	U	U	U	U	0.55 J	0.79 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.33 J	U	U	U	U	1.7	0.34 J	U
acetone	1,400,000	140,000	25	39	39	23	57	37	26	11 J	24	21	38	21 J
benzene	16	1.6	1.0	0.55	1.3	0.52 J	0.43 J	0.87	0.30 J	0.68	0.26 J	0.82	0.46 J	0.87 J
bromomethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	1.2	0.57	0.44 J	U	9.5	U	0.22 J	U	2.3 J	4.8	2.2	U
carbon tetrachloride	20	2	0.77	0.77 J	U	0.53 J	0.83 J	0.51 J	1.1 J	0.52 J	0.47 J	0.52 J♦	0.6 J	U
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	0.27 J	U
chloroform	5.3	0.53	11	0.79	U	0.27 J	U	U	0.66 J	0.17 J	0.25 J	U	0.54 J	U
chloromethane	3,900	390	U	1.1	U	0.67 J	1.3	1.4	1.2	1.1	0.85 J	0.76 J	0.98 J	U
cis-1,2-dichloroethene	NA	NA	U	9.70	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	0.17 J	0.67 J	U
cyclohexane	260,000	26,000	6.8	1.6	3.0	1.2	2.9	6.6	1.1	0.9	1.1 J	0.47 J	0.34 J	0.61 J
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	1.6	0.79	1.6	U	0.92	0.76 J	0.40 J	0.30 J	U	1.40	7.6	U
freon 11 (trichlorofluoromethane)	31,000	3,100	1.7	2.5	1.3	1.4	1.3	1.5	1.2	1.4	1.2 J	1.3 ♦	1.4	0.99 J
freon 113 (freon TF)	1,300,000	130,000	8.6	0.86 J	U	0.70 J	0.65 J	0.73 J	0.54 J	0.69 J	0.63 J	0.43 J	0.83 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	6.6	2.9	2.2	2.9	2.5	2.9	U	3.0	2.7 J	2.7	2.6	2 J
freon 22	2,200,000	220,000	NA	NA	NA	12	13	52 J	3	17	130	4.9	4.2	200
heptane	NA	NA	U	U	1.0	U	0.38 J	8.3	0.20 J	U	U	0.72 J	U	U
hexane	31,000	3,100	U	U	1.9	0.38 J	U	9.8	0.29 J	0.35 J	0.33 J	0.72	1.2	U
isopropyl alcohol	NA	NA	U	21	21	49	46	46	19	24	15 J	18 ♦	40	38 J
m,p-xylene (sum of isomers)	4,400	440	5.4	1.9	4.0	0.23 J	1.8 J	2.4	0.87 J	0.60 J	U	4.9	7.8	U
methyl butyl ketone	NA	NA	U	U	U	U	1.4 J	U	0.63 J	U	U	U	0.7 J	U
methyl ethyl ketone	220,000	22,000	2.9	2.7	1.9	5.9	4.3	3.9	2.8	0.86 J	4	U	4.4	2.6 J
methyl isobutyl ketone	130,000	13,000	2.2	U	U	U	3.1	U	1.1 J	0.22 J	0.28 J	0.91 J	0.92 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	13	0.46 J	0.49 J	0.52 J	1 J	0.47 J	0.67 J	U	0.71 J	0.43 J	U
naphthalene	3.6	0.36	U	U	U	U	3.2 J	U	0.61 J	U	U	U	0.75 J	U
n-Butane	NA	NA	NA	NA	NA	2.4	2.8	2.4	1.1 J	3.3	U	21	5.1	1.1 J
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	0.64 J	U
o-xylene	4,400	440	2.5	0.97	1.1	U	0.65 J	0.78 J	0.31 J	0.23 J	U	1.5	3.1	U
styrene	44,000	4,400	1.1	1.1	0.56 J	U	1.0	0.2 J	0.31 J	0.20 J	U	0.3 J♦	0.88	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	1.3 J	2.0 J	1 J	0.89 J	U	U	0.95 J	2.7 J	U
tetrachloroethylene (pce)	470	47	U	2.7	U	U	U	U	U	U	U	U	U	U
tetrahydrofuran	NA	NA	4.8	1.1	U	9.9 J	0.72 J	U	U	U	U	3 J	0.82 J	U
toluene	220,000	22,000	5.6	4.1	6.1	0.40 J	1.5	3.1	1.1	0.85	0.38 J	5.2	5	U
trichloroethylene (tce)	30	3	21	38	U	0.36 J	U	U	U	0.36 J	0.71 J	U	0.81 J	U
vinyl chloride	28	2.8	U	0.81	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	Indoor Air Screening Level ($\mu g/m^3$)	776VMP-2											
Sample ID			**776VMP0201AA**	**776VMP0201AB**	**776VMP0201AC**	**776VMP0201AD**	**776VMP0201AG**	**776VMP0201HA**	**776VMP0201IA**	**776VMP0201JA**	**776VMP0201KA**	**776VMP0201MA**	**776VMP0201NA**	**776VMP0201PA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**4-May-2011**	**6-Sep-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**9-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	8.7	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-tetrachloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	9.1	3.3	0.65 J	U	0.45 J	0.73 J	2	5.6	2.7	0.3 J	2.6	U
1,2-dichloroethane	4.7	0.47	U	0.49 J	U	U	U	U	U	0.27 J	U	0.22 J	U	U
1,3,5-trimethylbenzene	NA	NA	2.8	1.2	U	U	U	U	0.55 J	1.6	0.74 J	U	0.73 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	44	7.8	U	1.2	U
1,4-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	U	U	0.24 J	0.56 J	6.5 J	2.1	0.92 ♦	0.80 J	U	0.21 J	U
4-ethyltoluene	NA	NA	5.1	1.0	U	U	U	0.27 J	0.58 JM	1.7	0.81 J	0.15 J	0.82 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	0.49 J	0.41 J	U	U	1.8 ♦	U	U	0.34 J	U
acetone	1,400,000	140,000	17	39	45	20	43	36	38	58	38 ♦	8.8 J	35	U
benzene	16	1.6	1.1	0.45 J	1.5	0.65	0.43 J	0.92	0.7	1.7 ♦	0.60 J♦	0.75	0.41 JM	U
bromomethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	0.98	0.79	0.38 J	0.64 J	0.41 J	0.33 J	3.4	0.44 J♦	U	U	0.7 J♦	U
carbon tetrachloride	20	2	0.77	0.77 J	0.70 J	0.53 J	0.70 J	0.56 J	0.42 J	0.62 J♦	U	0.59 J	0.69 J♦	U
chlorobenzene	2,200	220	U	U	U	0.13 J	U	U	U	0.31 J♦	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	8.3	U	U	0.30 J	0.22 J	U	0.24 J♦	0.22 J	0.33 J♦	U	0.62 J	U
chloromethane	3,900	390	U	1.2	U	0.85 J	1.4	1.7	1.4♦	1.8	1.3 J	1.2	0.87 J	U
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	0.36 J	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	0.34 J♦	U	0.82 J	U
cyclohexane	260,000	26,000	4.5	7.3	8.5	1.4	2.1	5.5	0.79	6.9 J♦	1.3 J♦	0.72	0.57 J♦	U
ethyl acetate	3,100	310	U	1.9	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	0.66	0.88	1.4	0.75 J	1.1	0.98	1.4	4.1 J♦	2.1	0.4 J	10	U
freon 11 (trichlorofluoromethane)	31,000	3,100	2.5	1.8	1.6	1.6	1.4	1.5	1.2	1.6 ♦	1.5 J	1.2	1.5	U
freon 113 (freon TF)	1,300,000	130,000	6.8	1.0 J	U	1.2 J	0.67 J	0.68 J	0.53 J	0.73 J♦	0.74 J	0.54 J	0.98 J♦	U
freon 12 (dichlorodifluoromethane)	4,400	440	11.0	3.0	2.6	3.1	2.5	2.5 ♦	0.47 J	3.3 ♦	3.0 J	2.6	2.8	U
freon 22	2,200,000	220,000	NA	NA	NA	16	14	68 J	3.3	99 J♦	170	10	4.6	900
heptane	NA	NA	0.67	1.3	U	0.38 J	0.43 J	7.1 J	0.72 J	2.3 ♦	0.69 J♦	U	0.35 J	U
hexane	31,000	3,100	U	U	U	0.53 J	0.43 J	8.5 J	0.68 J	2.3 ♦	0.79 J♦	0.32 J	1.2	U
isopropyl alcohol	NA	NA	U	68	31	41	40	44	30	95	48	16	42	U
m,p-xylene (sum of isomers)	4,400	440	2.1	2.4	3.4	1.9 J	2.4	3.2	4.7	11	5.8	1.1 J	9.6	U
methyl butyl ketone	NA	NA	U	U	U	U	1.0 J	U	1.0 J	0.94 J	U	U	U	U
methyl ethyl ketone	220,000	22,000	1.7	U	3.9	1.2 J	4.3 B	3.6	5.9	9.4	7.0 ♦	U	4 ♦	U
methyl isobutyl ketone	130,000	13,000	U	U	U	0.44 J	1.9 J	0.39 J	0.89 J	1.0 J	1.2 J♦	U	0.99 J♦	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	0.74 J	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	0.33 J	U	U	U
methylene chloride	12,000	1,200	U	0.53	U	0.55 J	0.92 J	0.98 J	0.83 J♦	0.89 J	U	U	0.56 J♦	U
naphthalene	3.6	0.36	U	U	U	U	1.9 J	0.5 J	0.61 J	U	U	0.68 J	0.85 J	5.8 J♦
n-Butane	NA	NA	NA	NA	NA	3.2	3.3	2.7 ♦	1.4	5.8 J♦	1.6 J	2.5	5.2	U
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	0.65 J	U
o-xylene	4,400	440	1.1	0.93	0.97	0.79 J	0.82 J	1	1.8	4.5 J♦	2.1	0.37 J	3.6	U
styrene	44,000	4,400	0.78	1.0	0.65	0.44 J	1.8	U	0.44 J	4.8	1.6 J	0.67 J	0.91	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.3 J	1.7 J	1.7 J	17	5.0 J♦	U	2.4 J	U
tetrachloroethylene (pce)	470	47	1.4	U	7.4	U	U	U	0.17 J♦	0.52 J♦	U	U	U	U
tetrahydrofuran	NA	NA	1.6	4.3	U	U	1.1 J	3.3 J♦	U	1.4 J	U	U	0.58 J	U
toluene	220,000	22,000	3.2	4.5	6.9	1.4	1.7	3.6 J	4.5	19 J♦	4.8	0.85	4.9	U
trichloroethylene (tce)	30	3	360	3.8	3.7	3.0	1.4	0.33 J	0.20 J♦	0.81 J	1.1 J	0.42 J	0.76 J	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	Indoor Air Screening Level ($\mu g/m^3$)	776VMP-3											
Sample ID			**776VMP0301AA**	**776VMP0301AB**	**776VMP0301AC**	**776VMP0301AD**	**776VMP0301AG**	**776VMP0301HA**	**776VMP0301IA**	**776VMP0301JA**	**776VMP0301KA**	**776VMP0301MA**	**776VMP0301NA**	**776VMP0301PA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**4-May-2011**	**6-Sep-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**9-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	18	U	U	U	U	U	U	U	U	U	0.18 J	U
1,1,2,2-tetrachloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	11	2.1	0.50 J	0.61 J	0.52 J	U	0.67 J	U	0.36 J	0.25 J	0.23 J	U
1,2-dichloroethane	4.7	0.47	U	0.62	U	0.27 J	U	0.29 J	U	U	0.27 J	U	U	U
1,3,5-trimethylbenzene	NA	NA	2.7	0.70 J	U	U	U	U	U	U	0.11 J	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	0.79 J	U	U	U
2,2,4-trimethylpentane	NA	NA	U	U	U	U	U	5.7	0.65 J	0.21 J	0.16 J	U	U	U
4-ethyltoluene	NA	NA	5.2	0.65 J	U	U	U	U	U	U	0.12 J	U	U	U
4-isopropyltoluene	NA	NA	NA	NA	NA	0.29 J	0.40 J	U	U	U	0.12 J	U	0.22 J	U
acetone	1,400,000	140,000	20	30	58	34	50	37	19	37	26	21	27	18 JD
benzene	16	1.6	2	0.39 J	1.0	0.40 J	0.32 J	0.99	0.37 J	0.81	0.31 J	0.54 J	0.28 J	0.68 J
bromomethane	NA	NA	U	U	U	U	U	U	U	U	0.11 J	U	U	U
carbon disulfide	31,000	3,100	0.95	0.95	0.63	6.0	0.44 J	U	0.21 J	U	2.0	U	0.93 J	U
carbon tetrachloride	20	2	0.38	0.83 J	0.70 J	0.51 J	0.60 J	0.53 J	0.41 J	0.49 J	U	0.49 J	0.61 J	U
chlorobenzene	2,200	220	U	U	U	U	0.22 J	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	0.093 J	U	U	U
chloroform	5.3	0.53	16	U	0.74	0.68 J	0.87 J	1.2	0.18 J	0.29 J	0.44 J	U	0.47 JM	U
chloromethane	3,900	390	U	0.97	U	U	1.3	U	1.2	0.73 J	1.3	U	0.67 J	U
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	0.30 J	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	5.4	3.5	4.8	1.2	2.8	5	0.71	3.4	1.2	0.8	0.81 M	0.91 J
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	1.1	0.66	1.2	0.64 J	0.72 J	0.98	0.56 J	0.47 J	0.40 J	0.3 J	0.29 J	U
freon 11 (trichlorofluoromethane)	31,000	3,100	4.6	1.7	1.5	1.4	1.4	1.5	1.1	1.3	1.3	1.3	1.4	1.1 J
freon 113 (freon TF)	1,300,000	130,000	1.6	0.93 J	U	0.60 J	0.61 J	0.63 J	0.52 J	0.57 J	0.57 J	0.53 J	0.55 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	21	2.9	2.6	2.9	2.5	2.7	2.3 J	2.9	2.8	2.7	2.6	2.1 J
freon 22	2,200,000	220,000	NA	NA	NA	6.3	15	50 J	9.9	15	50	9.2	6	140
heptane	NA	NA	U	U	U	0.36 J	0.45 J	5.4	0.36 J	0.74 J	0.34 J	U	U	U
hexane	31,000	3,100	U	U	U	0.72	0.91	7.2	0.40 J	0.89	0.24 J	U	0.37 J	U
isopropyl alcohol	NA	NA	U	12	21	28	28	34	24	63	19	20	29	28 J
m,p-xylene (sum of isomers)	4,400	440	3.8	1.7	2.7	1.7 J	1.7 J	2.6	1.6 J	0.65 J	0.99 J	0.72 J	0.71 J	U
methyl butyl ketone	NA	NA	U	U	U	U	0.78 J	U	0.25 J	U	U	0.86 J	U	U
methyl ethyl ketone	220,000	22,000	2.8	2.0	2.2	2.6	7.0 B	4.6	1.5	6.6	4.0	5.9	3.6	1.9 J
methyl isobutyl ketone	130,000	13,000	U	U	U	0.83 J	3.1	U	0.43 J	0.44 J	1.1 J	U	1.1 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	0.95	U	0.50 J	0.99 J	0.79 J	0.43 J	0.66 J	U	U	0.57 J	U
naphthalene	3.6	0.36	U	U	U	0.51 J	1.6 J	U	0.62 J	U	1.2 J	U	0.31 J	U
n-Butane	NA	NA	NA	NA	NA	1.7	16	1.8	1.2 J	3.3	0.69 J	1.6	1.2 J	0.75 J
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
o-xylene	4,400	440	1.6	0.66	0.71	0.70 J	0.58 J	U	0.62 J	0.16 J	0.34 J	0.35 J	0.26 J	U
styrene	44,000	4,400	0.78	0.69	0.56 J	0.26 J	0.79 J	0.14 J	0.31 J	U	0.43 J	0.31 J	0.35 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.4 J	1 J	0.60 J	9.0 J	U	U	0.69 J	U
tetrachloroethylene (pce)	470	47	0.83 J	U	U	U	U	U	0.19 J	U	U	U	U	U
tetrahydrofuran	NA	NA	11	1.8	U	0.81 J	2.5 J	U	U	U	U	U	U	U
toluene	220,000	22,000	4.4	3.1	2.5	1.2	1.8	3.8	1.7	5.2	0.88	0.82	1	1.6 J
trichloroethylene (tce)	30	3	830	10	7.3	13	12	2.4	U	2.6	3.5	2.1	5.1	2.9 J
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	Indoor Air Screening Level ($\mu g/m^3$)	776-IA											
Sample ID			**776IA1CA**	**776IA1DA**	**776IA1EA**	**776IA1FA**	**776IA1GA**	**776IA1HA**	**776IA1IA**	**776IA1JA**	**776IA1LA**	**776IA1MA**	**776IA1NA**	**776IA1PA**
Sample Type			**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**
Sample Date			**4-May-2011**	**6-Sep-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**8-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**31-Aug-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Sample Collection Duration (hr)			**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-tetrachloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	1.2	1.7	0.85	U	0.55 J	U	U	U	0.32 J	U	0.29 J	U
1,2-dichloroethane	4.7	0.47	U	0.53 J	U	U	U	U	U	U	0.27 J	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	0.097 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	34
2,2,4-trimethylpentane	NA	NA	U	U	U	0.30 J	U	U	0.20 J	U	U	U	0.26 J	0.22 J
4-ethyltoluene	NA	NA	U	U	U	U	U	U	U	U	0.090 J	U	U	U
4-isopropyltoluene	NA	NA	NA	U	U	U	0.33 J	U	U	U	U	U	0.13 J	2.1
acetone	1,400,000	140,000	54	47	30	18	68	28	22	U	20	22	32	25
benzene	16	1.6	0.49	0.36 J	1.4	0.67 J	0.40 J	1.4	0.29 J	2.4	0.18 J	0.67	0.37 J	0.55 J
bromomethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	0.41 J	0.82	U	U	0.64 J	U	0.21 J	0.26 J	0.82 J	U	0.69 J	U
carbon tetrachloride	20	2	0.51	0.77 J	U	0.57 J	0.46 J	0.44 J	0.41 J	0.55 J	0.51 J	0.57 J	0.51 J	0.27 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	0.33 J	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	U	U	0.55 J	0.32 J	0.25 J	U	U	U	0.29 J	U	0.22 J	U
chloromethane	3,900	390	1.8	1.5	U	1.4 J	1.5	1.8	1.1	5.3	1.3	1.3	1.1	1.6
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	U	U	U	U	1.2	0.23 J	U	U	U	U	U	0.31 J
ethyl acetate	3,100	310	5.8	3.3	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	0.71	0.93	1.3	0.47 J	1.1	0.29 J	0.37 J	0.50 J	0.45 J	0.25 J	0.37 J	0.25 J
freon 11 (trichlorofluoromethane)	31,000	3,100	1.4	1.7	1.3	1.4 J	1.4	1.4	1.3	1.6	1.5	1.3	1.3	1 J
freon 113 (freon TF)	1,300,000	130,000	U	0.93 J	U	U	0.57 J	0.63 J	0.51 J	0.75 J	U	0.46 J	0.42 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	3.6	3.1	2.2	3.2 J	2.4 J	2.2 J	2.3 J	3.5	3.1	2.8	2.4 J	2 J
freon 22	2,200,000	220,000	NA	NA	NA	15	14	69	2.4	17	30	10	4.4	15
heptane	NA	NA	3.2	1.3	U	0.43 J	1.5	0.14 J	0.19 J	1.8	U	U	U	0.36 J
hexane	31,000	3,100	2.3	U	U	U	2.0	0.54 J	0.25 J	2.8	U	U	0.33 J	0.51 J
isopropyl alcohol	NA	NA	50	50	35	100	57	43	23	1.9 J	15	18	28	61
m,p-xylene (sum of isomers)	4,400	440	1.2 J	2.1	2.9	1.0 J	2.5	0.23 J	1.2 J	1.6 J	1.1 J	0.54 J	0.89 J	0.54 J
methyl butyl ketone	NA	NA	U	U	U	U	1.2 J	U	0.53 J	U	U	U	U	0.36 J
methyl ethyl ketone	220,000	22,000	3.3	4.1	U	0.84 J	6.5 B	2.1	2.6	U	2.0	2.1	3.9	2
methyl isobutyl ketone	130,000	13,000	U	U	U	0.83 J	2.7	1.1 J	1.5 J	U	1.5 J	U	U	0.68 J
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	1.3	U	U	1.7 J	1.2 J	1.8	1.0 J	0.64 J	U	0.95 J	2.1
naphthalene	3.6	0.36	U	U	U	0.71 J	2.2 J	U	U	U	U	U	1.1 J	0.38 J
n-Butane	NA	NA	NA	NA	NA	2.4	8.9	2.2	3.5	8.5	0.77 J	2.5	1.5	1.5
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
o-xylene	4,400	440	0.44 J	0.75	0.88	0.46 J	0.81 J	U	0.66 J	0.47 J	0.36 J	U	0.32 J	0.22 J
styrene	44,000	4,400	1.1	1.0	0.82	0.33 J	1.9	U	0.16 J	U	0.35 J	0.23 J	0.33 J	0.29 J
tert-Butyl alcohol	NA	NA	NA	NA	NA	0.56 J	5.4 J	U	0.69 J	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	U	U	0.38 J	U	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	U	U	0.90 J	U	U	U	U	U	U	U
toluene	220,000	22,000	4.4	3.2	3.9	1.3	5.3	4.3	0.97	8.7	1.1	0.8	1.4	1.7
trichloroethylene (tce)	30	3	3.6	1.9	0.98	0.41 J	U	U	U	0.26 J	0.95 J	0.35 J	0.52 J	0.28 J
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-2
Building 774/776 SSVM Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level ($\mu g/m^3$)	Indoor Air Screening Level ($\mu g/m^3$)	774/776-OA											
Sample ID			**776OA1DA**	**776OA1EA**	**774776OA1FA**	**774776OA1GA**	**774776OA1HA**	**774776OA1IA**	**774776OA1JA**	**774776OA1KA**	**774776OA1LA**	**774776OA1MA**	**774776OA1NA**	**774776OA1PA**
Sample Type			**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**
Sample Date			**4-May-2011**	**6-Sep-2011**	**21-Oct-2011**	**25-Jan-2012**	**6-Aug-2012**	**21-Feb-2013**	**8-Aug-2013**	**30-Jan-2014**	**17-Jul-2014**	**22-Jan-2015**	**1-Sep-2015**	**3-Feb-2016**
Sample Depth (ft bgs / ags)			**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Sample Collection Duration (hr)			**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-tetrachloroethane	NA	NA	U	U	U	U	U	U	U	U	5.5	U	U	U
1,2,4-trimethylbenzene	310	31	U	1.7	0.60 J	U	1.8	U	0.48 J	U	0.11 J	U	0.64 J	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	0.49 J	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	0.51 J	U	U	U	U	U	0.15 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	0.69 J	U
2,2,4-trimethylpentane	NA	NA	U	U	U	U	0.94 J	U	0.80 J	4.2	U	U	U	U
4-ethyltoluene	NA	NA	U	U	U	U	0.53 J	U	U	U	U	U	0.17 J	U
4-isopropyltoluene	NA	NA	U	U	U	U	0.8 J	U	U	U	U	U	U	U
acetone	1,400,000	140,000	18	53	6.8	1.9 J	97	15	13	7.0 J	9.1 J	U	13	U
benzene	16	1.6	U	0.39 J	U	0.63	0.92 J	0.61 J	0.47 J	0.91	0.16 J	0.63	0.33 JM	0.43 J
bromomethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	0.6	0.35 J	U	U	2.3 J	U	2	U	0.50 J	U	U	U
carbon tetrachloride	20	2	0.51	0.90 J	U	0.51 J	0.5 J	0.47 J	0.42 J	0.55 J	0.48 J	0.45 J	0.43 J	0.46 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	3,900	390	U	1.1	0.76	1.2	1.4 J	1.5	1.1	1.6	1.0	1.1	1.7	1.2
cis-1,2-dichloroethene	NA	NA	U	0.48 J	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	U	U	U	U	5.1	U	1.1	U	U	U	U	U
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U
ethylbenzene	49	4.9	U	U	1.1	U	2.1	U	0.37 J	0.24 J	U	U	0.21 J	0.15 J
freon 11 (trichlorofluoromethane)	31,000	3,100	1.3	1.7	1.3	1.4	1.4 J	1.4	1.1	1.5	1.3	1.4	1.3	1.7
freon 113 (freon TF)	1,300,000	130,000	U	0.86 J	U	0.56 J	0.61 J	0.64 J	0.57 J	0.68 J	U	0.53 J	0.43 J	1.2 J
freon 12 (dichlorodifluoromethane)	4,400	440	U	2.9	2.5	2.8	3.4 J	2.7	2.2 J	3.2	2.8	2.7	2.3 J	2.2 J
freon 22	2,200,000	220,000	NA	NA	NA	U	2.1 J	1.1 J	1.2 J	1.2 J	0.94 J	0.86 J	0.96 J	0.95 J
heptane	NA	NA	1.2	U	U	U	3.6	U	0.37 J	1.2	U	U	U	U
hexane	31,000	3,100	0.9	U	U	0.42 J	8.2	0.48 J	0.73	0.96	U	U	U	U
isopropyl alcohol	NA	NA	U	U	1.2	U	14 J	U	5.6 J	U	0.98 J	U	U	U
m,p-xylene (sum of isomers)	4,400	440	U	1.1 J	2.7	0.33 J	6.2	U	0.98 J	0.68 J	0.20 J	U	0.72 J	0.49 J
methyl butyl ketone	NA	NA	U	U	U	U	0.56 J	1.5	0.33 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	U	8.7 J	U	0.42 J	6.7 B	U	15	1.2 J	2.2	U	2	U
methyl isobutyl ketone	130,000	13,000	U	U	U	U	U	U	0.25 J	U	0.11 J	U	0.95 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	U	0.92	0.56	0.50 J	2.0 J	0.98 J	1.3 J	0.92 J	U	0.82 J	0.75 J	1.2 J
naphthalene	3.6	0.36	U	U	U	U	3.1 J	U	U	U	U	U	0.37 J	U
n-Butane	NA	NA	NA	NA	NA	1.8	24	1.4	1.3	4.7	U	1.4	0.88 J	1.6
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	0.14 J	U
o-xylene	4,400	440	U	0.44 J	0.97	0.12 J	2.2	U	0.43 J	0.21 J	U	U	0.28 J	U
styrene	44,000	4,400	U	U	U	U	1.2 J	U	0.25 J	U	U	U	U	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.2 J	U	0.73 J	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	U	U	U	0.91 J	U	U	U	U	U
tetrahydrofuran	NA	NA	U	1.3	U	U	8.2 J	U	U	U	U	U	U	U
toluene	220,000	22,000	1	5.8	3.5	0.73 J	20	0.39 J	5.6	1.9	0.37 J	0.49 J	0.73 J	1
trichloroethylene (tce)	30	3	0.98	2.6	0.60 J	U	U	U	U	1.2	0.53 J	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
▭ Exceedance of the indoor or outdoor initial benchmark.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-3
Buildings 774/776
SSVM System Performance Monitoring Influent Air Results

Sample Location	774776- Influent													
Sample ID	**774776CA01AA**	**774776CA01AB**	**774776CA01AC**	**774776CA01AD**	**774776CA01AE**	**774776CA01AF**	**774776CA01AG**	**774776CA01AH**	**774776CA01IA**	**774776CA01JA**	**774776CA01KA**	**774776CA01LA**	**774776CA01MA**	**774776CA01NA**
Sample Type	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**
Sample Date	**6-Jun-2011**	**23-Aug-2011**	**14-Oct-2011**	**14-Oct-2011**	**25-Oct-2011**	**24-Jan-2012**	**3-Aug-2012**	**15-Feb-2013**	**7-Aug-2013**	**28-Jan-2014**	**16-Jul-2014**	**20-Jan-2015**	**28-Aug-2015**	**1-Feb-2016**
Sample Depth (ft bgs / ags)	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
Sample Collection Duration (hr)	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**
Volatiles (TO-15) in µg/m^3														
1,1,1-trichloroethane	6.6	4.0	6.9	6.1	6.5	5.0 J	2.9	0.91 J	1.8	U	U	1.8	1.6 M	U
1,2,4-trimethylbenzene	9.5	3.1	U	U	1.7	U	0.69 J	U	0.56 J	U	U	U	1.4	U
1,3,5-trimethylbenzene	4.7	2.2	U	U	0.55 J	U	U	U	U	U	U	U	0.42 J	U
1,3-dichlorobenzene	U	U	U	U	U	U	0.81 J	U	U	U	U	U	U	U
2,2,4-trimethylpentane	U	U	U	U	U	U	U	U	0.23 J	U	U	U	1.1	U
4-ethyltoluene	6.9	1.0	U	U	U	U	U	U	U	U	U	U	0.55 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.34 J	U	0.35 J	U	U	U	0.49 J	U
acetone	50	30	300	440	27	16 J	23 B	28	35	19 J	63	7.6 J	36	10 J
benzene	0.45 J	4.1	0.42 J	0.7	0.97	1.8 J	0.30 J	0.25 J	0.33 J	3.9	0.65 J	0.53 J	0.37 J	0.84 J
carbon disulfide	0.73	U	U	U	U	U	0.46 J	0.21 J	U	U	U	0.44 J	1.5 J	U
carbon tetrachloride	U	U	U	U	0.96	U	0.54 J	1.8	0.51 J	U	1.5 J	U	1.5	U
chloroform	15	4.3	3.6	5.0	4.6	3.6 J	4.9	2.2	5.7	0.93 J	4.4 J	1.8	2.4	U
chloromethane	U	U	U	U	U	U	0.71 J	1.5	0.61 J	2.0 J	1.7 J	0.96 J	0.58 J	1 J
cis-1,2-dichloroethene	1.80	U	U	U	U	U	U	U	U	U	U	U	U	U
cumene	NA	NA	NA	NA	NA	U	U	U	U	U	0.98 J	0.26 J	0.14 J	U
cyclohexane	U	U	U	U	U	U	0.36 J	0.38 J	0.14 J	U	U	U	0.14 J	U
ethylbenzene	0.62 J	0.93	U	U	0.79	U	0.38 J	U	0.47 J	U	0.32 J	U	1.2	U
freon 11 (trichlorofluoromethane)	50	130	83	59	49	40	61	29	35	14	24	28	42	20
freon 113 (freon TF)	U	1.9	1.1 J	1.0 J	U	U	0.82 J	0.5 J	0.65 J	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	3.7	16	6.1	6.1	6.4	11 J	7.1	4.7	6.5	4.4 J	6.9 J	4.5	6.8	3.4 J
freon 22	NA	NA	NA	NA	NA	320	94	33	45	42	510	U	3.3	280
heptane	0.83	12	U	U	0.87	1.9 J	0.37 J	U	0.30 J	2.5 J	U	U	U	U
hexane	U	U	U	U	U	U	0.66 J	0.27 J	0.27 J	U	U	0.17 J	0.3 J	U
isopropyl alcohol	U	U	U	U	U	U	7.9 J	2.1 J	13	U	10 J	2.4 J	11 J	U
m,p-xylene (sum of isomers)	1.3 J	3.3	U	U	2.4	U	0.99 J	U	1.4 J	U	0.50 J	0.13 J	4	2.6 J
methyl ethyl ketone	14	4.4	300	400	15	4.8 J	2.5 B	0.45 J	5	U	4.7 J	U	4	U
methyl isobutyl ketone	U	U	U	U	U	U	0.28 J	U	0.46 J	U	U	U	U	U
methylene chloride	2.2	U	U	U	U	U	0.64 J	1 J	0.41 J	3.8 J	U	0.5 J	U	U
naphthalene	U	U	U	U	U	U	1.9 J	U	U	U	U	U	U	U
n-Butane	NA	NA	NA	NA	NA	2.9 J	1.7	3.4	1.1 J	7.3	U	1.7	1.7	1.7 J
n-Propylbenzene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	0.3 J	U
o-xylene	0.84	1.8	U	U	1.0	U	0.42 J	U	0.53 J	U	U	U	1.4	U
styrene	U	U	U	U	U	U	0.15 J	U	0.14 J	U	U	U	0.15 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	U	U	1.9 J	U	U	U	0.65 JM	U
tetrachloroethylene (pce)	3.4	2.4	2.3	12	3.5	U	1.5	U	1.1 J	U	1.6 J	0.84 J	0.69 J	U
tetrahydrofuran	120	6.0	600	770	5.2	U	1.4 J	1.8 J	0.24 U	U	U	U	0.91 J	U
toluene	1.8	2.2	0.96	1.4	2.2	0.83 J	1.2	0.17 J	1.1	0.67 J	0.72 J	0.22 J	1.1	2.3 J
trichloroethylene (tce)	510	240	670	1,200	650	300	190	20	120	32	97	100	82	60
vinyl chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m^3: microgram per cubic meter.
B - Analytes detected in the trip blank.

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* (µg/m³)	Indoor Air Screening Level* (µg/m³)	785VMP-2												
Sample ID			**785VMP0202AD**	**785VMP0202AE**	**785VMP0202AF**	**785VMP0202AG**	**785VMP0202AH**	**785VMP0202IA**	**785VMP0202JA**	**785VMP0202KA**	**785VMP0202LA**	**785VMP0202MA**	**785VMP0202NA**	**785VMP0202PA**	**785VMP0202QA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**18-Mar-2011**	**24-Aug-2011**	**24-Oct-2011**	**31-Jan-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**29-Jan-2014**	**18-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**2-Feb-2016**
Sample Depth (ft bgs / ags)			**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in µg/m³															
1,1,1-trichloroethane	220,000	22,000	U	U	U	0.57 J	U	U	U	0.43 J	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	1.5	1.4	U	U	3.7	1.6	U	U	U	1.4 J	0.72 J	3.9	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	1.0	0.46 J	U	U	U	0.38 J	U	1.1	U
1,3-butadiene	4.1	0.41	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	3.0	37	U	U	U	3.1	U	2.2	U
1,4-dichlorobenzene	23,360	2,336	U	1.5	U	U	U	U	U	U	U		U	0.21 J	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	0.36 J	U	6.6 J♦	U	U	U
2,2,4-trimethylpentane	NA	NA	U	U	1.2	U	1.5	5.8	0.17 J	U	U	U	U	U	0.2 J
4-ethyltoluene	NA	NA	0.65 J	U	U	U	1.2	0.65 J	U	U	U	0.30 J	U	0.98	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	0.33 J	U	U	U	U	U	U	0.45 J	U
acetone	1,400,000	140,000	10	17	3.2	0.76 J	12 JB	4.5 J	15	8.7 J	3.2 J	28	7.7 J	14	8.6 J♦
benzene	16	1.6	2.9	0.65	2.2	U	U	U	0.64	0.16 J	0.72	0.68 J	0.37 J	0.25 J	0.5 J
bromodichloromethane	3.3	0.33	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	0.82	0.63	U	U	0.86 J	U	0.70 J	0.41 J	0.43 J	4.7	0.65 J	4.8	0.6 J
carbon tetrachloride	20	2	U	U	0.70 J	0.49 J	0.46 J	0.44 J	0.46 J	U	0.33 J	0.86 J	0.42 J	0.57 J	0.4 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	1.5	U	U	U	U	U	0.16 J	0.55 J	0.24 J	26 J	U	0.28 J	U
chloromethane	3,900	390	1.4	1.1	U	3.5	37	0.21 J	8.8	3.7	5.1	12 J	2.2	4.2	0.6 J♦
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	0.5 J	0.24 J	2.0	U	0.16 J	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	0.19 J	U	0.61 J	U
cyclohexane	260,000	26,000	1.3	0.94	1.9	U	U	6.8	U	U	U	U	U	U	U
dibromochloromethane	10	NA	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	49	4.9	1.5	U	0.75	U	1.2	1.8	0.49 J	0.14 J	0.27 J	0.76 J	0.42 J	5.8	U
freon 11 (trichlorofluoromethane)	31,000	3,100	1	1.8	1.5	1.4	1.3	1.3	1.2	1.1	1.1 J	2.7	1.2	1.4	1.1
freon 113 (freon TF)	1,300,000	130,000	U	0.78 J	U	0.58 J	0.59 J	0.61 J	0.59 J	0.79 J	0.88 J	2.6 J	0.42 J	0.68 J	U
freon 114 (1,2-dichlorotetrafluoroethane)	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.8	3.1	2.6	2.9	2.4 J	2.3 J	2.5	2.3 J	3.1	4.6 J	2.4 J	2.7	1.8 J
freon 22	2,200,000	220,000	NA	NA	NA	U	U	0.81 J	0.90 J	0.83 J	U	2.0 J	0.75 J	0.95 J	0.8 J
heptane	NA	NA	2.1	U	1.8	U	3.8	3.4	0.22 J	U	U	U	U	U	0.3 J♦
hexane	31,000	3,100	6.9	U	6.1	U	1.3	9.8	0.18 J	0.2 J	U	7.5	0.74	0.23 J	0.3 J
isopropyl alcohol	NA	NA	U	U	U	U	13	470	2.4 J	U	U	29	U	4.2 J	U
m,p-xylene (sum of isomers)	4,400	440	4.7	0.93 J	2.3	0.21 J	4.5	6.8	0.93 J	0.35 J	0.63 J	1.6 J	1.1 J	6.5	0.4 J
methyl butyl ketone	NA	NA	U	U	U	U	0.47 J	U	1.0 J	0.25 J	U	1.2 J♦	U	0.77 J	0.4 J♦
methyl ethyl ketone	220,000	22,000	3	4.1	U	U	3.3 B	6.3	7.1	U	U	10	2.2	3.6	2.1 ♦
methyl isobutyl ketone	130,000	13,000	U	U	U	U	1.0 J	U	1.2 J	1.5	U	1.2 J	U	0.96 J	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	0.38 J	U	U	U
methylene chloride	12,000	1,200	1.4	U	U	U	2.4	U	0.40 J	0.41 J	U	0.45 J♦	U	U	0.7 J♦
naphthalene	3.6	0.36	U	U	U	U	2.2 J	U	U	U	U	U	U	0.54 J	U
n-Butane	NA	NA	NA	NA	NA	0.64 J	6.3	0.52 J	1.3	1 J	1.6	2.9	U	1 J	0.7 J
n-Propylbenzene	NA	NA	NA	NA	NA	U	0.68 J	U	U	U	U	U	U	0.78 J	U
o-xylene	4,400	440	1.3	U	0.71	U	1.6	2.4	0.27 J	0.14 J	0.23 J	0.68 J	0.53 J	2.9	0.2 J♦
styrene	44,000	4,400	U	U	U	U	0.46 J	0.37 J	U	U	U	0.29 J	U	0.52 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.8 J	U	2.7 J	1.6 J	U	8.9 J	U	3.3 J	U
tetrachloroethylene (pce)	470	47	U	U	U	U	0.73 J	0.58 J	0.51 J	U	U	U	U	U	U
tetrahydrofuran	NA	NA	8.2	11	U	4.6 J	87	U	68	46	13 J	95 J	8.2 J	21	U
toluene	220,000	22,000	15	3.3	6.2	0.36 JB	3.8	7.5	2.3	0.47 J	1.1	1.9	1.3 J	2.1	0.6 J
trichloroethylene (tce)	30	3	U	19	8.9	1.0 J	9.1	0.68 J	7.2	37	6.1	400	0.6 J	15	1.1
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m³: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
* EPA Commercial Regional Screening Levels (http://www.epa.gov/reg3hscd/risk/human/rb-concentration_table/Generic_Tables/index.htm)

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* (µg/m³)	Indoor Air Screening Level* (µg/m³)	785VMP-4													
Sample ID			**785VMP0401AA**	**785VMP0401AB**	**785VMP0401AC**	**785VMP0401AD**	**785VMP0401AG**	**785VMP0401HA**	**785VMP0401IA**	**785VMP0401JA**	**785VMP0401KA**	**785VMP0401LA**	**785VMP0401NA**	**785VMP0401PA**	**785VMP0401QA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**18-Mar-2011**	**24-Aug-2011**	**24-Oct-2011**	**31-Jan-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**28-Feb-2014**	**18-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**2-Feb-2016**
Sample Depth (ft bgs / ags)			**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in µg/m³															
1,1,1-trichloroethane	220,000	22,000	1.7	0.72 J	U	U	0.40 J	U	0.28 J	0.93 J	0.56 J	U	U	U	U
1,2,4-trimethylbenzene	310	31	0.95	6.7	1.8	0.45 J	15	1.4	1.4	1.1 J	0.20 J	U	0.51 J	11 D	29
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	2.1	0.50 J	U	3.9	0.49 J	0.39 J	U	0.072 J	U	U	3.1 JD	9
1,3-butadiene	4.1	0.41	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	30	1.8	U	U	U	U	U	U
1,4-dichlorobenzene	23,360	2,336	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	2.7 J
2,2,4-trimethylpentane	NA	NA	U	1.5	3.9	0.58 J	U	5.5	0.71 J	U	U	U	U	U	0.5 J
4-ethyltoluene	NA	NA	U	2.7	0.85	U	3.6	0.49 J	0.31 J	U	U	U	U	4.2 JD	12
4-isopropyltoluene	NA	NA	NA	NA	NA	U	1.6	U	U	1.1 J	U	U	U	U	0.23 J
acetone	1,400,000	140,000	15	16	U	4.9 J	44	8.1 J	73	120	7.2 J	7900	22	120 D	51
benzene	16	1.6	4.9	4.2	8.4	0.64	0.57 J	0.61 J	0.58 J	0.89 J	0.58 J	U	0.63 J	0.75 JDM	2.8
bromodichloromethane	3.3	0.33	2.6	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	4.8	13	9.2	1.1 J	12	0.48 J	2.7	8.3	2.0	U	1.6	21 D	2.6
carbon tetrachloride	20	2	U	U	U	0.51 J	0.47 J	0.43 J	0.39 J	U	U	U	0.46 J	0.53 JD	0.38 J
chlorobenzene	2,200	220	U	0.66 J	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	91	0.79	U	U	0.47 J	U	0.33 J	0.74 J	2.5	U	U	1.7 JDM	U
chloromethane	3,900	390	U	U	U	U	0.30 J	0.15 J	0.29 J	0.43 J	U	U	U	U	0.42 J
cis-1,2-dichloroethene	NA	NA	2.3	U	U	U	U	U	U	0.75 J	U	U	U	5.1 D	1.8
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	1.5 J	U	U	U	0.57 JD	2.1
cyclohexane	260,000	26,000	6.2	9.4	8.0	0.34 JB	2.1	6.8	1.5	U	U	U	U	U	U
dibromochloromethane	10	NA	U	U	U	0.34 JB	2.1	6.8	1.5	U	U	U	U	U	U
ethylbenzene	49	4.9	1.1	6.1	4.9	0.58 J	3.9	3.1	1.9	1.8	0.39 J	U	0.41 J	4.5	12
freon 11 (trichlorofluoromethane)	31,000	3,100	0.86	1.7	1.3	1.4	1.4	1.3	1.1	1.3 J	0.83 J	U	1.1	1.5 J	1 J
freon 113 (freon TF)	1,300,000	130,000	1.1 J	0.86 J	U	0.58 J	0.69 J	0.64 J	0.60 J	0.91 J	0.97 J	U	0.55 J	U	U
freon 114 (1,2-dichlorotetrafluoroethane)	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.9	2.8	2.5	2.9	2.6	2.6	2.3 J	U	2.5	U	2.4 J	3.1 J	1.7 J
freon 22	2,200,000	220,000	NA	NA	NA	U	U	0.77 J	0.88 J	U	0.75 J	U	0.82 J	U	0.74 J
heptane	NA	NA	3.6	5.3	8.2	0.45 JB	1.1	3.6	0.69 J	U	U	U	U	U	2.5
hexane	31,000	3,100	8.2	7.9	13	0.91 B	1.4	9.3	0.57 J	6	0.69	U	1	U	1.2
isopropyl alcohol	NA	NA	U	U	0.62	2.3 J	15	190	5.5 J	10 J	1.3 J	U	U	U	U
m,p-xylene (sum of isomers)	4,400	440	2.7	14	14	1.1 J	3.4	8.7	2.8	1.9 J	0.73 J	U	1.2 J	16	38
methyl butyl ketone	NA	NA	U	U	U	U	0.94 J	U	0.61 J	1.2 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	2.3	2.7	U	0.82 J	10 B	4.4	14	19	U	2300	7.6	55	14
methyl isobutyl ketone	130,000	13,000	U	U	U	U	1.3 J	U	1.7 J	U	2.9	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	0.95	U	U	0.43 J	0.82 J	0.52 J	0.95 J	1.7 J	U	U	0.76 J	U	0.68 J
naphthalene	3.6	0.36	U	U	U	U	0.68 J	U	0.72 J	U	U	U	U	U	U
n-Butane	NA	NA	NA	NA	NA	4.6	3.8	0.44 J	0.91 J	1.6 J	U	U	1.2	U	0.41 J
n-Propylbenzene	NA	NA	NA	NA	NA	U	1.5	U	0.31 J	U	U	U	U	2.6 J	7.9
o-xylene	4,400	440	0.84	5.1	2.8	0.46 J	1.7	3.4	1.1	0.8 J	0.41 J	U	0.48 J	5.3	17
styrene	44,000	4,400	U	U	U	U	0.30 J	0.35 J	0.34 J	0.33 J	U	U	U	1.4 J	5.5
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.8 J	U	1.2 J	2.2 J	U	U	U	U	3.4 J
tetrachloroethylene (pce)	470	47	U	U	1.0	U	1.2 J	0.62 J	0.34 J	0.4 J	U	U	U	U	0.24 J
tetrahydrofuran	NA	NA	U	U	U	U	3.4 J	U	U	0.95 J	U	20,000	19	360	52
toluene	220,000	22,000	26	23	42	2.2 B	5.9	8.1	3.3	4.2	1.2	U	1.9	6.7	15
trichloroethylene (tce)	30	3	720	88	33	3.5	39	3	17	54	27	170 J	1.2	33	6
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m³: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
* EPA Commercial Regional Screening Levels (http://www.epa.gov/reg3hscd/risk/human/rb-concent

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* (µg/m³)	Indoor Air Screening Level* (µg/m³)	785VMP-5											
Sample ID			785VMP0501AA	785VMP0501AB	785VMP0501AC	785VMP0501AD	785VMP0501FA	785VMP0501GA	785VMP0501HA	785VMP0501IA	785VMP0501JA	785VMP0501NA	785VMP0501PA	785VMP0501PA
Sample Type			sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab
Sample Date			25-Aug-2011	24-Oct-2011	31-Jan-2012	8-Aug-2012	6-Mar-2013	9-Aug-2013	3-Oct-2013	29-Jan-2014	18-Jul-2014	26-Jan-2015	1-Sep-2015	2-Feb-2016
Sample Depth (ft bgs / ags)			1	1	1	1	1	1	1	1	1	1	1	1
Sample Collection Duration (hr)			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Volatiles (TO-15) in µg/m³														
1,1,1-trichloroethane	220,000	22,000	4.8	1.8	0.53 J	0.74 J	U	0.54 J	1.4	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	2.2	1.4	U	0.69 J	0.71 J	U	U	0.55 J	U	1.1 J	9.3 D	0.35 JD
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	0.28 J	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	0.85	U	U	U	0.31 J	U	U	U	U	U	2.4 JD	U
1,3-butadiene	4.1	0.41	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	17	U	U	U	U	U	U	U
1,4-dichlorobenzene	23,360	2,336	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	0.48 J	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	1.4	1.3	0.92	6.5	0.96	U	U	U	U	U	U
4-ethyltoluene	NA	NA	0.50 J	U	U	U	0.34 J	U	U	U	U	U	2.6 JD	U
4-isopropyltoluene	NA	NA	NA	NA	U	0.64 J	U	U	U	U	U	U	U	U
acetone	1,400,000	140,000	21	4.3	2.3 J	20 B	6.8 J	8.2 J	2.8 J	10 J	2600	54	77 D	23 D
benzene	16	1.6	0.39 J	2.6	0.64	0.50 J	0.69	0.38 J	0.27 J	0.62	U	3.3	8.6 D	3.5 D
bromodichloromethane	3.3	0.33	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	0.38 J	U	U	2.7	U	U	U	U	U	U	6.8 JD	11 D
carbon tetrachloride	20	2	U	U	0.48 J	0.45 J	0.48 J	0.31 J	0.38 J	0.39 J	U	U	0.92 JD	0.42 JDM
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	2.8	0.74	U	U	U	0.19 J	0.21 J	U	46 J	U	U	U
chloromethane	3,900	390	U	U	U	0.97 J	0.85 J	0.48 J	0.42 J	1.4	U	U	U	0.36 JD
cis-1,2-dichloroethene	NA	NA	2.1	U	U	U	U	0.41 J	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	0.41 J	U	U	U	U	U	U	U	1.2 JD	U
cyclohexane	260,000	26,000	U	2.9	1.1 B	U	U	U	U	U	U	U	U	U
dibromochloromethane	10	NA	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	49	4.9	2.3	1.6	1.8	3.8	2.1	U	0.7 J	0.55 J	U	2.2 J	6.7	0.57 J
freon 11 (trichlorofluoromethane)	31,000	3,100	2.2	2.3	1.4	1.5	1.4	1.5	1.4	1.4	U	U	1.5 J	1 J
freon 113 (freon TF)	1,300,000	130,000	0.86 J	U	U	0.58 J	0.62 J	0.50 J	0.58 J	0.60 J	U	U	U	U
freon 114 (1,2-dichlorotetrafluoroethane)	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.9	2.5	2.8	2.4 J	2.6	2.2 J	2.4 J	3.2	U	2.2 J	2.9 J	1.9 J
freon 22	2,200,000	220,000	NA	NA	U	U	0.95 J	0.90 J	U	1.2 J	U	U	U	0.73 J
heptane	NA	NA	U	1.9	0.70 JB	1.4	3.4	0.92	U	0.56 J	U	U	U	U
hexane	31,000	3,100	U	U	3.5 B	1.3	9.9	1.4	0.18 J	0.83	U	U	U	U
isopropyl alcohol	NA	NA	8.2	U	U	2.1 J	290	15	U	22	U	8.1 J	U	U
m,p-xylene (sum of isomers)	4,400	440	8.2	5.8	3.6	14	7.5	U	2 J	1.5 J	U	6 J	21	1.3 J
methyl butyl ketone	NA	NA	U	U	U	0.86 J	U	U	U	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	2	U	0.37 J	4.3 B	3.9	0.49 J	U	1.5	1200	13	U	4.9
methyl isobutyl ketone	130,000	13,000	U	U	U	0.49 J	U	U	0.48 J	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	3.7	U	U	0.59 J	0.6 J	0.43 J	1.7 J	0.72 J	U	U	U	U
naphthalene	3.6	0.36	U	U	U	0.46 J	U	U	U	U	U	U	U	U
n-Butane	NA	NA	NA	NA	4.8	4.4	1.5	0.57 J	0.64 J	3.0	U	U	U	U
n-Propylbenzene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	1.5 J	U
o-xylene	4,400	440	3	1.5	1.7	4.7	2.4	U	0.63 J	0.58 J	U	2.1 J	8.1	0.46 J
styrene	44,000	4,400	U	U	U	0.64 J	U	U	U	0.58 J	U	3.9	22	1.1 J
tert-Butyl alcohol	NA	NA	NA	NA	U	0.96 J	U	0.55 J	U	2.5 J	U	U	U	U
tetrachloroethylene (pce)	470	47	2.2	U	U	U	U	U	0.3 J	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	0.21 J	0.41 J	U	U	U	U	6900	230	540	67
toluene	220,000	22,000	2.1	7.4	1.6 B	3.7	4.9	1.2	0.69 J	3.2	U	U	2.6 J	0.77 J
trichloroethylene (tce)	30	3	610	140	18	20	1.1	7	73	1.2	510	41	150	7.3
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m³: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
* EPA Commercial Regional Screening Levels (http://www.epa.gov/reg3hscd/risk/human/rb-concent

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* (µg/m³)	Indoor Air Screening Level* (µg/m³)	785-1A											
Sample ID			**785IA05**	**785IA06**	**785IA07**	**785IA08**	**785IA09**	**785IA10**	**785IA11**	**785IA12**	**785IA13**	**785IA14**	**785IA15**	**785IA1QA**
Sample Type			**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**	**Indoor**
Sample Date			**24-Aug-2011**	**24-Oct-2011**	**27-Jan-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**28-Jan-2014**	**17-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**1-Feb-2016**
Sample Depth (ft bgs / ags)			**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Sample Collection Duration (hr)			**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**8**
Volatiles (TO-15) in µg/m³														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	1.7	1.4	U	0.37 J	U	0.49 J	U	U	0.42 J	0.21 J	2.4	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	U	U	U	U	0.15 J	U	0.54 J	U
1,3-butadiene	4.1	0.41	U	U	U	U	0.32 J	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	23,360	2,336	U	U	U	U	U	U	U	U	0.11 J		U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	11 J	U	U	U
2,2,4-trimethylpentane	NA	NA	U	0.52 J	0.29 J	U	U	U	U	U	U	U	0.24 J	0.25 J
4-ethyltoluene	NA	NA	U	U	U	U	U	U	U	U	0.12 J	U	0.61 J	U
4-isopropyltoluene	NA	NA	NA	NA	U	U	U	U	U	U	0.56 J	U	U	U
acetone	1,400,000	140,000	35	11	2.6 J	16 B	9.3 J	9.7 J	6.6 J	U	19	U	9.3 J	4.3 J
benzene	16	1.6	U	1.3	0.58 J	0.36 J	U	U	0.31 J	0.48 J	0.30 J	0.64	0.37 JM	0.48 J
bromodichloromethane	3.3	0.33	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	U	U	U	U	U	U	U	0.76 J	6.8	U	0.92 J	0.29 J
carbon tetrachloride	20	2	U	U	0.53 J	0.44 J	U	0.48 J	0.43 J	0.49 J	0.51 J	0.47 J	0.45 J	0.37 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U		U	U	0.3 J	U	U	U	U	U
chloroform	5.3	0.53	U	4.7	U	U	U	U	0.39 J	U	U	U	U	U
chloromethane	3,900	390	U	U	1.2	1.1	1.2	1	1.9	1.6	1.5	1.1	0.97 J	1
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	U	0.84	U	U	U
cumene	18,000	1,800	NA	NA	U	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	U	U	0.34 JB	U	U	U	U	U	U	U	0.41 JM	U
dibromochloromethane	10	NA	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	49	4.9	U	0.75	0.13 J	0.22 J	U	0.19 J	0.13 J	U	0.69 J	0.21 J	0.52 J	U
freon 11 (trichlorofluoromethane)	31,000	3,100	1.7	1.3	1.4	1.3	1.4	1.3	1.2	1.4	1.5	1.2	1.2	0.99 J
freon 113 (freon TF)	1,300,000	130,000	U	U	0.54 J	0.58 J	0.65 J	0.59 J	0.56 J	0.63 J	0.69 J	0.45 J	0.47 J	U
freon 114 (1,2-dichlorotetrafluoroethane)	NA	NA	U	U	U	U	U	U	U	U	U	U	5.7	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.8	2.3	2.8	2.3 J	2.6	2.3 J	2..5	3.0	2.6	2.6	3.4	1.7 J
freon 22	2,200,000	220,000	NA	NA	U	U	1 J	1.0 J	U	1.1 J	1.1 J	0.84 J	1.4 J	0.74 J
heptane	NA	NA	U	0.71	0.37 JB	0.70 J	U	U	U	U	U	U	0.43 JM	0.24 JM
hexane	31,000	3,100	U	2.3	2.0 B	0.75	U	U	0.28 J	U	0.29 J	2.2	0.99	0.47 J
isopropyl alcohol	NA	NA	24	U	U	0.84 J	U	U	U	U	2.1 J	U	U	U
m,p-xylene (sum of isomers)	4,400	440	1.0 J	2.4	0.29 J	0.65 J	U	0.66 J	0.33 J	U	2.1 J	0.53 J	2.2	U
methyl butyl ketone	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	3.2	U	0.30 J	2.3 B	1.1 J	1.7	1.1 J	1.0 J	3.9	U	1.2 J	0.95 J
methyl isobutyl ketone	130,000	13,000	U	U	U	0.38 J	U	0.37 J	U	U	0.37 J	U	2.3	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	0.85	U	U	0.51 J	U	U	0.63 J	0.69 J	U	0.88 J	1.4 J	0.73 J
naphthalene	3.6	0.36	U	U	U	U	U	U	U	U	U	U	0.22 J	U
n-Butane	NA	NA	NA	NA	2.0	2.5	1.3	0.70 J	1.1 J	1.4	U	5.9	7.4	1.1 J
n-Propylbenzene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	0.37 J	U
o-xylene	4,400	440	U	0.75	0.11 J	0.22 J	U	0.25 JM	0.14 J	U	0.40 J	0.2 J	1.2	U
styrene	44,000	4,400	U	U	U	U	U	U	U	U	U	U	0.069 J	U
tert-Butyl alcohol	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	21	U	U	U	U	U	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
toluene	220,000	22,000	4.2	4.0	1.4 B	1.3	U	0.84	0.75	0.33 J	1.3	0.97	0.89	3
trichloroethylene (tce)	30	3	1.1	U	U	U	U	U	U	U	0.88 J	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m³: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
* EPA Commercial Regional Screening Levels (http://www.epa.gov/reg3hscd/risk/human/rb-concent

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* (µg/m³)	Indoor Air Screening Level* (µg/m³)	785/786-OA											
Sample ID			**785OA01**	**785786OA02**	**785786OA03**	**785786OA04**	**785786OA05**	**785786OA06**	**785786OA07**	**785786OA08**	**785786OA09**	**785786OA10**	**785786OA11**	**785786OA1QA**
Sample Type			**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**	**Outdoor**
Sample Date			**24-Aug-2011**	**24-Oct-2011**	**27-Jan-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**28-Jan-2014**	**17-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**1-Feb-2016**
Sample Depth (ft bgs / ags)			**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
Sample Collection Duration (hr)			**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**8**
Volatiles (TO-15) in µg/m³														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	1.3	2.6	U	0.73 J	U	U	U	U	0.073 J	U	0.091 J	U
1,2-dichloroethane	4.7	0.47	U	U	U	2.6	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,3-butadiene	4.1	0.41	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	23,360	2,336	U	U	U	U	U	U	U	U	U		U	U
1,4-dioxane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	U	0.76	0.34 J	0.56 J	U	0.23 J	U	U	U	U	U	U
4-ethyltoluene	NA	NA	U	0.65 J	U	U	U	U	U	U	U	U	U	U
4-isopropyltoluene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
acetone	1,400,000	140,000	39	12	19	150	4 J	22	8.5 J	3.3 J	6.2 J	U	12 J	4 J
benzene	16	1.6	0.39 J	1.8	0.56 J	0.80 J	0.78	0.32 J	U	0.53 J	0.14 J	0.5 J	0.3 J	0.37 JM
bromodichloromethane	3.3	0.33	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	U	U	U	0.78 J	U	0.57 J	U	U	0.59 J	U	0.8 J	2.8
carbon tetrachloride	20	2	U	U	0.52 J	U	0.54 J	0.47 J	0.4 J	0.56 J	0.30 J	0.5 J	0.45 J	0.41 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	3,900	390	U	U	1.2	1.2 J	1.4	1.0 J	1.1 J	1.7	1.2	1.3	0.93 J	1.1
cis-1,2-dichloroethene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	U	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	0.77	U	U	U	U	U	U	U	U	U	U	U
dibromochloromethane	10	NA	U	U	U	U	U	U	U	U	U	2.8	U	U
ethylbenzene	49	4.9	U	1.3	U	1.4 J	U	0.13 J	U	U	U	U	0.099 J	U
freon 11 (trichlorofluoromethane)	31,000	3,100	1.7	1.4	1.4	1.4 J	1.4	1.2	1.2	1.5	1.2	1.3	1.2	1.1 J
freon 113 (freon TF)	1,300,000	130,000	U	U	0.59 J	0.70 J	U	0.55 J	0.54 J	0.70 J	0.54 J	0.49 J	0.49 J	U
freon 114 (1,2-dichlorotetrafluoroethane)	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.9	2.2	2.8	3.2 J	2.7	2.1 J	2.3 J	3.3	2.5	U	2.3 J	1.6 J
freon 22	2,200,000	220,000	NA	NA	U	U	0.92 J	0.99 J	U	1.3 J	0.84 J	0.93 J	0.96 J	0.72 J
heptane	NA	NA	U	1.2	0.55 JB	2.7	U	0.14 J	0.89 J	U	U	U	U	0.23 J
hexane	31,000	3,100	U	3.8	2.2 B	4.4	U	0.25 J	0.19 J	0.22 J	U	U	U	0.2 J
isopropyl alcohol	NA	NA	15	2.2	1.3 J	11 J	U	1.6 J	U	U	1.1 J	U	U	U
m,p-xylene (sum of isomers)	4,400	440	0.75 J	4.3	0.30 J	3.8 J	U	0.37 J	U	U	0.14 J	U	0.33 J	U
methyl butyl ketone	NA	NA	U	U	U	1.1 J	U	0.37 J	2.2	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	3.4	U	0.92 J	8.6 B	U	3.3	U	U	1.3 J	U	1.7	0.69 J
methyl isobutyl ketone	130,000	13,000	U	U	U	U	U	0.17 J	0.28 J	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	1.1	1.3	0.53 J	2.4 J	U	6.5	0.58 J	1.0 J	0.68 J	U	1.4 J	0.65 J
naphthalene	3.6	0.36	U	U	U	1.1 J	U	U	U	U	U	U	U	U
n-Butane	NA	NA	NA	NA	1.9	30	1.4	0.54 J	0.95 J	1.5	U	1.3	0.75 J	0.94 J
n-Propylbenzene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
o-xylene	4,400	440	U	1.3	U	1.3 J	U	0.12 J	U	U	U	U	0.16 JM	U
styrene	44,000	4,400	U	U	U	0.74 J	U	U	U	U	U	U	U	U
tert-Butyl alcohol	NA	NA	NA	NA	U	1.8 J	U	0.93 J	U	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	1.7 J	U	U	U	U	U	U	U	U
tetrahydrofuran	NA	NA	U	U	U	5.9 J	U	U	U	U	U	U	U	U
toluene	220,000	22,000	2.3	7.2	0.57 JB	17	0.55 J	0.74	0.57 J	0.34 J	0.58 J	0.28 J	0.62 J	1.5
trichloroethylene (tce)	30	3	0.82	0.82	U	U	U	U	U	U	U	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m³: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
* EPA Commercial Regional Screening Levels (http://www.epa.gov/reg3hscd/risk/human/rb-concent

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location	Sub-slab Vapor Screening Level* ($\mu g/m^3$)	Indoor Air Screening Level* ($\mu g/m^3$)	786VMP-1												
Sample ID			786VMP0102AA	786VMP0102AB	786VMP0102AC	786VMP0102AD	786VMP0102AG	786VMP0102HA	786VMP0102IA	786VMP0102JA	786VMP0102KA	786VMP0102LA	786VMP0102NA	786VMP0102PA	786VMP0102QA
Sample Type			sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab	sub-slab
Sample Date			18-Jan-2011	24-Aug-2011	24-Oct-2011	27-Jan-2012	8-Aug-2012	6-Mar-2013	9-Aug-2013	3-Oct-2013	26-Feb-2014	18-Jul-2014	26-Jan-2015	1-Sep-2015	2-Feb-2016
Sample Depth (ft bgs / ags)			2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Sample Collection Duration (hr)			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Volatiles (TO-15) in $\mu g/m^3$															
1,1,1-trichloroethane	220,000	22,000	12	U	U	U	U	U	U	0.53 J	U	U	U	U	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	0.59 J	U	U	0.65 J
1,2,4-trimethylbenzene	310	31	7.5	6.9	1.2	U	0.38 J	1.0	1.7	1.3	0.31 J	4.2	0.48 J	1.7	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	5.2	1.9	U	U	U	0.33 J	0.46 J	0.38 J	U	1.3 J	U	0.5 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	17 J	2.3	U	1.8 J	16	U	1.8	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	U	U	0.16 J	U
2-chlorotoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	0.30 J	U	U	U
2,2,4-trimethylpentane	NA	NA	19	0.95	3.8	1.9	U	7 J	1.3	U	U	1.2 J	U	U	U
4-ethyltoluene	NA	NA	3.2	2.7	0.65 J	U	U	0.29 J	0.54 J	0.23 J	U	1.4 J	U	0.59 J	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	0.27 J	U
acetone	1,400,000	140,000	31	20	U	3.3 J	7.8 JB	12 J	7.8 J	9.2 J	U	26	3.7 J	15	3.6 J
benzene	16	1.6	19	3.1	9.1	U	U	U	0.66	0.47 J	0.71 J	1.4	0.43 J	0.31 J	0.3 J
bromodichloromethane	3.3	0.33	4.0	U	U	U	U	U	U	U	U	U	U	U	U
bromomethane	220	22	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	15	0.63	U	U	0.65 J	U	0.56 J	2.6	U	8.2	U	0.69 JM	1 J
carbon tetrachloride	20	2	U	U	0.70 J	0.43 J	0.52 J	0.41 J♦	0.35 JM	0.37 J♦	U	0.53 J	U	0.78 J	0.2 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	0.90 J	U	U	U
chloroform	5.3	0.53	30	0.84	U	U	0.43 J	U	U	1.1	U	2.6	U	1.1	U
chloromethane	3,900	390	U	U	U	U	0.24 J	0.2 J	0.18 J	0.27 J	U	U	U	0.31 J	0.22 J
cis-1,2-dichloroethene	NA	NA	9.7	U	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	0.67 J	U	0.45 J	U
cyclohexane	260,000	26,000	U	2.5	5.7	2.8	U	8.7 J	U	0.25 J	U	2.7	U	U	0.14 J
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U	U
ethylbenzene	49	4.9	6.6	4.6	3.1	U	0.34 J	0.89	1	2	0.40 J	4.6	0.24 J	4.5	U
freon 11 (trichlorofluoromethane)	31,000	3,100	3.0	1.8	2.6	1.3	1.3	1.3	1.1	1.3	U	1.6 J	U	2.1	0.89 J
freon 113 (freon TF)	1,300,000	130,000	U	0.86 J	0.78 J	0.64 J	0.62 J	0.64 J	0.52 J	0.61 J	U	0.84 J	0.38 J	0.99 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	3.8	2.9	U	2.7	2.4 J	2.6 ♦	2.2 J♦	2.3 J	2.0 J	2.9 J	2.4 J	4	1.5 J
freon 22	2,200,000	220,000	NA	NA	NA	U	0.86 J	0.89 J♦	0.79 J♦	0.79 J	U	0.92 J	0.68 J	1.4 J	1 J
heptane	NA	NA	25	3.4	8.1	4.1	U	3.9 J	0.39 J♦	0.37 J	U	1.0 J	U	U	U
hexane	31,000	3,100	52	4.9	16	10	U	13 J	0.22 J♦	2.5	0.81 J	1.5	U	U	1.7
isopropyl alcohol	NA	NA	U	14	U	1.1 J	0.87 J	98 J	6.6 J	14	120	68	2.2 J	4.5 J	U
m,p-xylene (sum of isomers)	4,400	440	17	19	11	0.32 J	1.0 J	3.4	3.6	5.6	1.2 J	13	0.69 J	5	0.36 J
methyl butyl ketone	NA	NA	U	U	U	U	U	U	0.31 J♦	0.34 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	U	2.3	U	0.55 J	1.3 JB	4.1 J	1.4 J♦	3.6	U	11	U	2.3	1.1 J
methyl isobutyl ketone	130,000	13,000	U	U	U	3.5	U	U	U	1.2 J	U	1.4 J	U	0.88 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	2.8 J	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	1.3 J	U	U	U
methylene chloride	12,000	1,200	3.8	U	U	U	0.44 J	0.55 J	0.40 J♦	0.84 J	U	U	U	0.97 JM	0.66 J
naphthalene	3.6	0.36	U	U	U	U	U	U	0.98 J	0.85 J	U	U	U	0.99 J	0.58 J
n-Butane	NA	NA	NA	NA	NA	U	0.43 J	1.2 J♦	U	0.44 J	5.0	2.9	U	4.3	12
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	U	U	U	U	U	1.0 J	U	0.46 J	U
o-xylene	4,400	440	7.5	4.9	2.0	0.11 J	0.39 J	1.3	1.4	1.6	1.7 J	4.3	0.14 J	2.0	0.38 J
styrene	44,000	4,400	U	U	U	U	0.20 J	0.2 J	0.37 J♦	0.43 J	U	2.5	U	0.45 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	U	U	0.69 J♦	1.8 J	U	16 J	U	4.1 J	U
tetrachloroethylene (pce)	470	47	140	3.7	2.0	2.4	1.5	0.5 J	0.71 J♦	3.3	U	8.3	U	6.4	0.83 J
tetrahydrofuran	NA	NA	U	U	U	U	0.43 J	U	U	2.5 J	U	7.5 J	U	U	U
toluene	220,000	22,000	35	15	29	0.61 J	1.5	3.7 J	3	4.2	3.0	14	0.85	2.5	U
trichloroethylene (tce)	30	3	4,900	84	49	13	24	9.1 J♦	16♦	140♦	26	270	U	160	41
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$ microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			786VMP-2												
Sample ID	**Sub-slab Vapor Screening Level* ($\mu g/m^3$)**	**Indoor Air Screening Level* ($\mu g/m^3$)**	**786VMP0202AA**	**786VMP0202AB**	**786VMP0202AC**	**786VMP0202AE**	**786VMP0202AG**	**786VMP0202HA**	**786VMP0202IA**	**786VMP0202JA**	**786VMP0202KA**	**786VMP0202LA**	**786VMP0202NA**	**786VMP0202PA**	**786VMP0202QA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**18-Jan-2011**	**24-Aug-2011**	**24-Oct-2011**	**7-Feb-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**29-Jan-2014**	**18-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**2-Feb-2016**
Sample Depth (ft bgs / ags)			**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$															
1,1,1-trichloroethane	220,000	22,000	15	4.2	3.7	0.78 J	2.1	U	3.7	6.8	1.5	14	0.55 J	4.7	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	0.75 J	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	4.5	7.5	1.6	0.62 J	1.2	1.4	1.5	U	0.49 J	U	0.16 J♦	2.4 ♦	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	1.7	3.1	0.55 J	0.26 J	0.33 J	0.44 J	0.41 J	0.25 J	U	U	U	0.63 J♦	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	28	1.9	0.28 J	4.9	U	U	1.3 ♦	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	U	U	0.12 J♦	U
2-chlorotoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	1.8	U	1.3	U	U	6.8	0.61 J	U	U	U	U	0.14 J	U
4-ethyltoluene	NA	NA	0.95	2	0.55 J	0.29 J	0.36 J	0.37 J	0.46 J	U	U	U	U	0.72 J♦	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	0.82 J♦	U
acetone	1,400,000	140,000	49	25	U	1.9 J	26 B	25	4.8 J	15	31 J♦	U	5.5 J	12 ♦	3.4 J
benzene	16	1.6	4.6	0.32 J	2.2	U	0.19 J	0.66	0.44 J	0.42 J	0.66 ♦	0.49 J	0.63	0.27 J	U
bromodichloromethane	3.3	0.33	7.4	3.2	1.7	0.32 J	1.3 J	U	0.70 J	0.96 J	U	2.1 J	U	0.86 J	U
bromomethane	220	22	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	5.3	1.4	0.41 J	U	0.64 J	U	0.62 J	0.45 J	U	1.1 J	U	26 ♦	0.14 J
carbon tetrachloride	20	2	U	U	U	0.44 J	0.53 J	0.41 J	0.47 J	0.34 J	U	U	0.32 J	0.57 J	U
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	620	100	72	12	31	2.4	55	58	11	160	3.8	31	3.1
chloromethane	3,900	390	U	U	U	U	0.27 J	U	0.28 J	0.19 J	U	U	U	2.9 ♦	0.37 J
cis-1,2-dichloroethene	NA	NA	1.4	U	U	U	U	U	0.34 J	0.32 J	U	0.90 J	U	0.35 J	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	U	U	0.5 J♦	U
cyclohexane	260,000	26,000	U	U	U	U	0.38 J	9.1	U	U	3.4 J♦	U	U	U	U
ethyl acetate	3,100	310	U	1.1	U	U	U	U	NA	U	U	U	U	U	U
ethylbenzene	49	4.9	1.5	8.8	2.7	1.4	1.9	1.6	0.77 J	0.64 J	0.56 J	U	0.16 J♦	4.2 ♦	U
freon 11 (trichlorofluoromethane)	31,000	3,100	2.7	1.7	1.4	1.3	1.4	1.4	1.2	1.3	0.91 J♦	1.9 J	U	1.6	0.65 J
freon 113 (freon TF)	1,300,000	130,000	3.7	1.1 J	1.1 J	0.55 J	0.78 J	0.75 J	0.78 J	1.5	1.2 J♦	2.3 J	0.68 J	1.2 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	3.5	2.8	2.3	2.5	2.4 J	2.7	1.9 J	2.4 J	3.0 ♦	3.0 J	3.1	2.5	1.7 J
freon 22	2,200,000	220,000	NA	NA	NA	U	1.2 J	0.98 J	0.73 J	0.82 J	U	1.0 J	1 J	0.84 J♦	0.73 J
heptane	NA	NA	5.8	U	1.7	U	0.38 J	3.7	U	U	0.85 ♦	U	0.23 J	0.26 J♦	U
hexane	31,000	3,100	U	U	U	0.22 J	0.76	15	0.19 JM	2.5	1.1 J♦	U	U	0.31 J♦	U
isopropyl alcohol	NA	NA	U	U	U	1.4 J	1.5 J	170	3.1 J	1 J	24	U	1.4 J	3.7 J♦	U
m,p-xylene (sum of isomers)	4,400	440	4.8	32	9.9	4.6	7.2	6.3	2.8	1.5 J	1.5 J	U	0.39 J♦	4.9 ♦	U
methyl butyl ketone	NA	NA	9.2	8.7 J	U	U	0.84 J	U	U	0.58 J	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	15	U	U	U	4.8 B	7	1.4 J	3.2	3.1 ♦	U	1.4 J	3.1 ♦	U
methyl isobutyl ketone	130,000	13,000	6.7	U	U	1.0 J	0.74 J	U	U	0.78 J	U	U	U	0.72 J♦	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	1.4	23	2.5	15	2.8	0.83 J	2.3	1.3 J	1.0 J♦	U	0.65 J♦	0.41 J♦	U
naphthalene	3.6	0.36	U	U	U	U	0.53 J	U	0.77 J	0.52 J	U	U	U	0.87 J♦	U
n-Butane	NA	NA	NA	NA	NA	0.67 J	2.1	1.3	0.37 J	0.26 J	0.85 J♦	U	1.1 J	0.86 J♦	U
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	U	U	U	U	U	U	U	0.53 J♦	U
o-xylene	4,400	440	2.2	6.6	2.1	1.1	1.6	2.2	1	0.53 J	0.61 J	U	0.18 J♦	2.1 ♦	U
styrene	44,000	4,400	U	2.2	U	U	0.25 J	U	U	0.22 J	0.29 J	U	U	0.39 J♦	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	U	1.1 J	U	U	3.3 J	4.2 J♦	U	U	2.1 J♦	U
tetrachloroethylene (pce)	470	47	11	0.83 J	2.9	U	0.82 J	U	0.93 J	0.54 J	U	1.6 J	U	3	U
tetrahydrofuran	NA	NA	16	U	U	U	0.67 J	U	U	0.42 J	U	1.3 J	1.3 J	18 ♦	U
toluene	220,000	22,000	6.7	16	11	2.2 B	4.4	5.2	2.1	2	4.3 ♦	0.59 J	0.9	1.9 ♦	U
trichloroethylene (tce)	30	3	740	260	140	22	110	6.3	150	120	6.3	410	6.3	130	0.41 J
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			786VMP-3												
Sample ID	**Sub-slab Vapor Screening Level* ($\mu g/m^3$)**	**Indoor Air Screening Level* ($\mu g/m^3$)**	**786VMP0302AA**	**786VMP0302AB**	**786VMP0302AC**	**786VMP0302AD**	**786VMP0302AG**	**786VMP0302HA**	**786VMP03021A**	**786VMP0302JA**	**786VMP0302KA**	**786VMP0302LA**	**786VMP0302NA**	**786VMP0302PA**	**786VMP0302QA**
Sample Type			**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**	**sub-slab**
Sample Date			**18-Jan-2011**	**24-Aug-2011**	**24-Oct-2011**	**27-Jan-2012**	**8-Aug-2012**	**6-Mar-2013**	**9-Aug-2013**	**3-Oct-2013**	**29-Jan-2014**	**18-Jul-2014**	**26-Jan-2015**	**1-Sep-2015**	**2-Feb-2016**
Sample Depth (ft bgs / ags)			**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**	**2.5**
Sample Collection Duration (hr)			**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**
Volatiles (TO-15) in $\mu g/m^3$															
1,1,1-trichloroethane	220,000	22,000	16	U	U	U	U	U	U	0.6 J	U	1.9	U	U	U
1,1-dichloroethane	77	7.7	1.4	U	U	U	U	U	U	U	U	0.57 J	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	0.62 J	U	U	0.39 J	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	13	2.4	0.8	0.33 J	U	U	U	0.96	0.30 J	6.2	0.38 J	U	U
1,2-dichloroethane	4.7	0.47	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	9.9	0.65 J	U	U	U	U	U	0.3 J	U	1.6	U	U	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	0.41 J	U	18	U	U	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	1.4	U	U	U
2-chlorotoluene	NA	NA	NA	NA	NA	U	U	U	U	U	U	0.42 J	U	U	U
2,2,4-trimethylpentane	NA	NA	U	U	1.4	0.24 J	U	U	1.9	U	U	2.3	U	U	0.32 J
4-ethyltoluene	NA	NA	8.1	0.60 J	U	U	U	U	U	0.28 J	U	2.1	U	U	U
4-isopropyltoluene	NA	NA	NA	NA	NA	U	U	U	U	2.2	U	0.76 J	U	U	U
acetone	1,400,000	140,000	50	24	4.3	1.2 J	94	17	5.5 J	9.3 J	31 J	44	7.8 J	50	13
benzene	16	1.6	4.7	0.32 J	4.2	0.25 J	1.0	0.7	U	0.46 J	0.82	3.5	0.7	2.8	0.77
bromodichloromethane	3.3	0.33	2.9	U	U	U	U	U	U	U	U	U	U	U	U
bromomethane	220	22	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	31,000	3,100	3.1	0.95	U	U	0.91 J	U	0.38 J	3.3	0.64 J	15	U	2.1	U
carbon tetrachloride	20	2	U	U	0.64 J	0.48 J	0.55 J	U	0.44 J	0.31 JM	0.28 J	0.45 J	0.49 J	0.56 J	0.39 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	3.0	U	U	U
chloroform	5.3	0.53	47	U	U	U	0.33 J	U	U	0.41 J	0.21 J	1.4	U	U	U
chloromethane	3,900	390	U	U	U	U	U	0.2 J	0.14 J	0.32 J	U	0.47 J	U	U	U
cis-1,2-dichloroethene	NA	NA	1.1	U	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	NA	U	U	U	U	U	U	1.1	U	U	U
cyclohexane	260,000	26,000	U	U	U	U	U	3.6	U	U	U	3.7	U	U	0.28 J
ethyl acetate	3,100	310	U	U	U	U	U	U	NA	U	U	U	U	U	U
ethylbenzene	49	4.9	9.8	1.6	1.1	0.40 J	0.34 J	U	U	0.8 J	0.31 J	6.4	U	0.71 J	0.15 J
freon 11 (trichlorofluoromethane)	31,000	3,100	3.2	1.7	1.5	1.4	1.4 J	1.4	1.2	1.2	1.1	2	1.4	1.4	1 J
freon 113 (freon TF)	1,300,000	130,000	3.4	0.78 J	U	0.54 J	0.67 J	0.6 J	0.59 J	U	0.69 J	0.67 J	0.65 J	0.63 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	U	2.8	2.6	2.7	2.7 J	2.6	2.1 J	0.56 J	3.1	3.5	3	2.6	1.9 J
freon 22	2,200,000	220,000	NA	NA	NA	0.97 J	1.0 J	0.98 J	U	0.84 J	0.86 J	1.3 J	1 J	0.94 J	0.81 J
heptane	NA	NA	4.7	1.2	1.9	0.40 J	0.83 J	U	0.51 J	U	7.5	2.2	0.67 J	22	1.3
hexane	31,000	3,100	U	U	6.8	1.5	U	2.9	U	0.48 JM	4.9	1.9	0.96	24	1.8
isopropyl alcohol	NA	NA	U	11	U	U	2.8 J	34	2.3 J	5.5 J	U	73	3.4 J	1.2 J	U
m,p-xylene (sum of isomers)	4,400	440	16	5.3	3.4	1.4 J	0.75 J	U	U	1.7 J	0.37 J	17	0.42 J	0.77 J	0.36 J
methyl butyl ketone	NA	NA	7.6	U	U	U	7.6	U	U	U	U	U	U	1.9 J	0.42 J
methyl ethyl ketone	220,000	22,000	19	6.3 J	U	U	35	3.5	0.95 J	3.6	7.4	11	2.1	25	4.3
methyl isobutyl ketone	130,000	13,000	U	U	U	4.0	1.3 J	U	U	0.75 J	1.4 J	2.2	U	1.9 J	U
methyl methacrylate	NA	NA	NA	NA	NA	U	U	U	U	U	U	3.3	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	1.7	U	U	U
methylene chloride	12,000	1,200	U	U	U	0.50 J	U	U	U	1.4 J	0.53 J	1.3 J	0.63 J	U	U
naphthalene	3.6	0.36	U	U	U	U	0.87 J	U	U	18.0	U	U	U	0.23 J	U
n-Butane	NA	NA	NA	NA	NA	U	U	U	U	0.33 J	2.4	0.97 J	0.76 J	33	3.2
n-Propylbenzene	44,000	4,400	NA	NA	NA	U	U	U	U	U	U	2.3	U	U	U
o-xylene	4,400	440	6.2 J	1.5	0.84	0.38 J	0.24 J	U	U	0.62 J	0.19 J	5.2	0.11 J	0.34 J	U
styrene	44,000	4,400	4.8	0.95	U	U	U	U	U	0.27 J	U	3.0	U	0.16 J	U
tert-Butyl alcohol	NA	NA	NA	NA	NA	0.47 J	150	U	U	2.2 J	U	17	U	0.65 J	U
tetrachloroethylene (pce)	470	47	85	2.6	1.5	U	4.6	U	4.2	U	0.77 J	8.5	U	1.1 J	U
tetrahydrofuran	NA	NA	36	U	U	U	U	11 J	U	2 J	U	12 J	1.3 J	U	U
toluene	220,000	22,000	16	5.2	7.7	0.62 J	2.7	0.2 J	0.70 J	3.2	1.0	19	0.44 J	2.6	0.86
trichloroethylene (tce)	30	3	2,200	51	23	1.9	36	1.8	6.5	58	11	200	0.24 J	18	0.4 J
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-4
Buildings 785/786 SSVM System Performance Monitoring
Sub-Slab Vapor, Indoor and Outdoor Air Results

Sample Location			786-1A											
Sample ID	Sub-slab Vapor Screening Level* ($\mu g/m^3$)	Indoor Air Screening Level* ($\mu g/m^3$)	786IA04	786IA05	786IA06	786IA07	786IA08	786IA09	786IA10	786IA11	786IA12	786IA13	786IA14	786IA1QA
Sample Type			Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Sample Date			24-Aug-2011	24-Oct-2011	27-Jan-2012	8-Aug-2012	6-Mar-13	9-Aug-13	3-Oct-13	28-Jan-14	17-Jul-14	26-Jan-15	1-Sep-15	2-Feb-16
Sample Depth (ft bgs / ags)			5	5	5	5	5	5	5	5	5	5	5	5
Sample Collection Duration (hr)			12	12	12	12	12	12	12	12	12	12	12	8
Volatiles (TO-15) in $\mu g/m^3$														
1,1,1-trichloroethane	220,000	22,000	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	77	7.7	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trichlorobenzene	88	9	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	310	31	5.1	1.9	U	0.59 J	U	U	2.8	U	0.15 J	U	0.63 J	U
1,2-dichloroethane	4.7	0.47	U	U	U	0.44 J	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	NA	NA	2.6	U	U	U	U	U	0.78 J	U	U	U	0.19 J	U
1,3-dichlorobenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	11	1.1	U	U	U	U	U	U	U	U	U	U	U	U
2-chlorotoluene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
2,2,4-trimethylpentane	NA	NA	0.81	U	0.41 J	0.80 J	2.4	0.38 J	U	0.76 J	U	U	0.44 JM	0.96
4-ethyltoluene	NA	NA	1.2	0.60 J	U	U	U	U	0.74 J	U	U	U	0.16 J	U
4-isopropyltoluene	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
acetone	1,400,000	140,000	49	12	3.3 J	46	21	15	18	U	9.2 J	6.8 J	13	5.3 J
benzene	16	1.6	0.91	1.3	0.75	0.47 J	0.77	0.41 J	0.68	0.52 J	0.22 J	0.52 J	1.2 M	U
bromodichloromethane	3.3	0.33	U	U	U	U	U	U	U	U	U	U	U	U
bromomethane	220	22	U	U	U	U	U	U	U	U	0.12 J	U	U	U
carbon disulfide	31,000	3,100	U	U	U	1.8	U	0.38 J	U	1.2 J	U	0.66 J	0.4 J	U
carbon tetrachloride	20	2	U	U	0.53 J	0.43 J	0.5 J	0.44 J	0.4 J	0.53 J	0.45 J	0.55 J	0.49 J	0.31 J
chlorobenzene	2,200	220	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	5.3	0.53	U	U	U	0.19 J	U	U	U	U	U	U	U	U
chloromethane	3,900	390	U	U	1.2	1.3	U	0.86 J	1	1.6	1.2	1.5	1.1	0.97 J
cis-1,2-dichloroethene	NA	NA	0.64	U	U	U	U	U	U	U	U	U	U	U
cumene	18,000	1,800	NA	NA	U	U	U	U	U	U	U	U	U	U
cyclohexane	260,000	26,000	U	1.7	0.28 JB	0.35 J	U	0.18 J	U	U	U	U	0.21 JM	U
ethyl acetate	3,100	310	U	U	U	U	U	NA	U	U	U	U	U	U
ethylbenzene	49	4.9	3	1.8	0.67 J	1.3	U	1.1	14	U	0.11 J	0.21 J	0.3 J	U
freon 11 (trichlorofluoromethane)	31,000	3,100	1.7	1.1	1.4	1.4	1.6	1.1 J	1.2	1.4	1.3	1.4	1.2	0.96 J
freon 113 (freon TF)	1,300,000	130,000	0.78 J	U	0.56 J	0.61 J	0.68 J	0.53 J	0.49 J	0.63 J	0.59 J	0.66 J	0.45 J	U
freon 12 (dichlorodifluoromethane)	4,400	440	2.8	2.0	2.8	2.5	3	2.0 J	2.3 J	3.1	2.5	3	2.4 J	1.6 J
freon 22	2,200,000	220,000	NA	NA	U	1.3 J	1.1 J	0.78 J	0.86 J	1.1 J	1.1 J	1 J	0.94 J	0.75 J
heptane	NA	NA	1.7	0.96	0.48 JB	0.92	1.2	0.36 J	U	0.82	U	0.26 J	0.38 JM	U
hexane	31,000	3,100	U	2.6	1.3 B	1.5	8.2	0.56 J	0.38 J	0.77	U	0.37 J	0.8	U
isopropyl alcohol	NA	NA	8.2	3.0	U	3.0 J	1.1 J	2.6 J	1.8 J	U	1.8 J	U	U	U
m,p-xylene (sum of isomers)	4,400	440	11	6.2	1.8 J	3.9	U	3.3	47	U	0.30 J	0.37 J	1.1 J	U
methyl butyl ketone	NA	NA	U	U	U	0.40 J	U	0.42 J	U	U	U	U	U	U
methyl ethyl ketone	220,000	22,000	5.9	U	0.76 J	4.5 B	3.8	3.1	7.6	U	1.2 J	1.1 J	1.6	0.87 J
methyl isobutyl ketone	130,000	13,000	U	U	2.6	0.71 J	U	0.98 J	2.7	U	U	U	0.75 J	U
methyl methacrylate	NA	NA	NA	NA	U	U	U	U	U	U	U	U	U	U
methyl tert-butyl ether	31,000	3,100	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	12,000	1,200	2.7	U	0.67 J	1.0 J	0.69 J	0.47 J	0.75 J	0.68 J	U	0.7 J	0.79 J	0.63 J
naphthalene	3.6	0.36	U	U	U	U	U	0.86 J	U	U	U	U	0.21 J	U
n-Butane	NA	NA	NA	NA	2.3	7.8	3.2	1.3	1.4	2.2	U	2.1	1.9	1.2 J
n-Propylbenzene	44,000	4,400	NA	NA	U	U	U	U	0.48 J	U	U	U	U	U
o-xylene	4,400	440	2.7	1.7	0.51 J	1.0	U	0.80 J	14	U	0.11 J	0.14 J	0.45 J	U
styrene	44,000	4,400	1.8	U	U	0.62 J	U	0.33 J	0.58 J	U	U	U	U	U
tert-Butyl alcohol	NA	NA	NA	NA	U	U	U	0.56 J	U	U	U	U	U	U
tetrachloroethylene (pce)	470	47	U	U	U	0.34 J	U	U	U	U	1.2 J	U	U	U
tetrahydrofuran	NA	NA	U	U	U	1.5 J	U	U	U	U	U	U	U	U
toluene	220,000	22,000	8.8	9.4	2.4 B	7.3	0.98	4.5	9.3	0.33 J	0.52 J	0.51 J	1.6	U
trichloroethylene (tce)	30	3	2.5	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	28	2.8	U	U	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
M - Lab qualifier for manual integrated compound
NA- Not Available
$\mu g/m^3$: microgram per cubic meter.
Exceedance of EPA Commercial Regional Screening Levels.
B - Analytes detected in the trip blank.
♦-Denotes higher nominal value of duplicate sample result.
*EPA Commercial Regional Screening Levels

Table 3-5
Buildings 785/786
SSVM Performance Monitoring Influent Results

Sample Location	785786-Influent									
Sample ID	**785786CA01AA**	**785786CA01AB**	**785786CA01AC**	**785786CA01AD**	**785786CA01AG**	**785786CA01AH**	**785786CA01IA**	**785786CA01LA**	**785786CA01MA**	**785786CA01NA**
Sample Type	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**	**Influent**
Sample Date	**19-May-2011**	**23-Aug-2011**	**25-Oct-2011**	**24-Jan-2012**	**3-Aug-2012**	**14-Feb-2013**	**7-Aug-2013**	**20-Jan-2015**	**28-Aug-2015**	**1-Feb-2016**
Sample Depth (ft bgs)	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**	**na**
Sample Collection Duration (hr)	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**	**quick grab**
Volatiles (TO-15) in µg/m^3										
1,1,1-trichloroethane	4.8	1.4	1.6	0.32 J	U	U	0.36 J	U	0.5 JM	U
1,2,4-trimethylbenzene	6.9	1.7	2.8	0.26 J	1.4 J	0.73 J	0.74 J	0.23 J	0.16 J	U
1,2-dichloroethene	U	U	U	U	U	U	U	0.36 J	1.1 J	U
1,3,5-trimethylbenzene	6.3	1.5	U	U	0.65 J	U	U	U	U	U
1,3-butadiene	U	U	U	U	U	0.23 J	U	U	U	U
1,3-dichlorobenzene	U	U	U	U	0.49 J	U	U	U	U	U
1,4-dioxane	U	U	U	U	U	U	U	U	U	13 JD
2,2,4-trimethylpentane	300	31	33	7.9	9.5	10	2.8	3.9	0.17 J	U
4-ethyltoluene	U	0.75	U	U	0.36 J	U	U	0.1 J	U	U
4-isopropyltoluene	NA	NA	NA	U	U	U	U	U	U	2.7 D
acetone	180	5.1	U	1.2 J	56	110	4.3 J	14	17	58 D
benzene	1.9	0.81	U	U	0.51 J	0.72 J	0.47 J	0.42 J	0.61 J	0.38 JD
carbon disulfide	6.9	0.79	U	U	0.70 J	U	U	1.7	4.4	U
carbon tetrachloride	U	U	U	0.48 J	0.44 J	0.45 J	0.37 J	1.45 J	1 J	U
chloroethane	U	U	U	U	U	U	U	U	0.19 J	U
chloroform	59	8.1	7.8	1.6	2.8	U	1.2	0.67 J	2.5	U
chloromethane	U	U	U	U	0.45 J	0.59 J	0.24 J	U	1.5	0.48 J
cis-1,2-dichloroethene	17	4.5	3.0	0.56 J	1.6	U	1	0.36 J	1.2 M	0.63 J
cumene	NA	NA	NA	U	U	U	U	0.25 J	U	U
cyclohexane	180	28	U	U	4.4	7.6	U	0.24 J	U	U
ethylbenzene	5.9	2.9	1.7	0.30 J	1.1 J	U	0.41 J	0.19 J	0.29 J	U
freon 11 (trichlorofluoromethane)	1.4	1.8	1.5	1.4	1.4 J	1.5 J	1.1	1.5	2.6	1 J
freon 113 (freon TF)	0.78 J	0.78 J	U	0.52 J	0.62 J	0.73 J	0.52 J	0.66 J	1.1 J	U
freon 12 (dichlorodifluoromethane)	2.4	2.7	U	2.5	2.3 J	3.3 J	2.3 J	3	5	2 J
freon 22	NA	NA	NA	U	U	1.3 J	U	1 J	2.3	0.84 J
heptane	130	30	26	3.1	2.5	10	0.15 J	U	U	U
hexane	150	13	U	1.5	5.4	22	0.20 J	U	0.24 J	U
isopropyl alcohol	U	U	U	U	9.6 J	6.8 J	3.9 J	1.5 J	1.1 J	U
m,p-xylene (sum of isomers)	16	6.3	6.0	0.98 J	3.3	1 J	1.5 J	0.41 J	0.87 J	U
methyl ethyl ketone	20	U	U	0.27 J	5.3 B	2.3 J	0.66 J	3.7	3.3	4.4
methylene chloride	1.4	U	U	0.54 J	2.0 J	U	0.55 J	U	0.73 JM	U
naphthalene	U	U	U	U	2.3 J	U	0.56 J	U	0.18 J	U
n-butane	NA	NA	NA	2.8	13	2.8	U	3.6	1.1 JM	0.62 J
n-Propylbenzene	NA	NA	NA	U	U	U	U	0.65 J	U	U
o-xylene	6.5	3.4	1.9	0.30 J	1.3 J	0.4 J	0.47 J	0.13 J	0.28 J	U
styrene	U	U	U	U	0.48 J	U	0.14 J	U	U	U
tert-butyl alcohol	NA	NA	NA	U	1.0 J	U	U	U	0.46 J	U
tetrachloroethylene (pce)	250	52	72	11	22	6.6	11	5	6.1	1.2 J
tetrahydrofuran	510	U	U	U	2.6 J	U	U	0.62 J	U	U
toluene	5.6	3.4	3.8	0.44 J	9.5	0.97 J	1.6	0.27 J	0.89	U
trichloroethylene (tce)	3500	520	740	140	250	93	130	72	140	80
vinyl chloride	U	U	U	U	U	U	U	U	U	U

Notes:
U - Not detected.
J- The analyte was positively identified; the quantitation is an estimation.
D - The reported value is from a dilution
M - Lab qualifier for manual integrated compound
NA- Not Available
µg/m^3: microgram per cubic meter.
B - Analytes detected in the trip blank.

QUARTERLY OPERATIONS AND MAINTENANCE 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 2016 / APRIL – JUNE)

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Appendix A

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	3/24/16			
conducted by:	K. Whelmsley / M. Dawson			
Site ID:	774/776		Patm (inch hg):	29.96
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.5	56
774-2	-24	774-2	0.05	55
776-1	-25	776-1	1.05	55
Blower Temp (deg F)	110	After Cooler Temp (deg F)	83	
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:	4/1/16			
conducted by:	K. Whelpsa / D. Smith			
Site ID:	774/776		Patm (inch hg):	29.48
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.5	59
774-2	-24	774-2	0.05	61
776-1	-26	776-1	1.0	58
Blower Temp (deg F)	117	After Cooler Temp (deg F)	99	
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:	4/8/16			
conducted by:	K. W. Thelma			
Site ID:	774/776		Patm (inch hg):	29.61
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.5	56
774-2	-25	774-2	0.1	58
776-1	-25	776-1	1.1	56
Blower Temp (deg F)	112	After Cooler Temp (deg F)	79	
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:	4.19.16			
conducted by:	DP			
Site ID:	774/776		Patm (inch hg):	30.17
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	26	774-1	6.5	60
774-2	26	774-2	6.2	64
776-1	~~12~~ 26	776-1	1.2	60
Blower Temp (deg F)	120	After Cooler Temp (deg F)	102	

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:	4/29/16			
conducted by:	K. Wilhelmsen			
Site ID:	774/776		Patm (inch hg):	30.07
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.5	61
774-2	-24	774-2	0.05	63
776-1	-25	776-1	1.0	60
Blower Temp (deg F)	118	After Cooler Temp (deg F)	100	
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:	5/11/16			
conducted by:	KJ / MG			
Site ID:	774/776		Patm (inch hg):	29.62
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.45	62
774-2	-23	774-2	0.1	64
776-1	-25	776-1	1.0	62
Blower Temp (deg F)	117	After Cooler Temp (deg F)	105	
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:	5/20/16			
conducted by:	K. Wilhelmsen			
Site ID:	774/776		Patm (inch hg):	30.24
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-27	774-1	0.5	63
774-2	-24	774-2	1.0	65
776-1	-25	776-1	1.05	63
Blower Temp (deg F)	117	After Cooler Temp (deg F)	105	

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:	6/1/16			
conducted by:	K. Wilhelmsen			
Site ID:	774/776		Patm (inch hg):	29.65
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-22	774-1	0.4	66
774-2	-19	774-2	0.2	69
776-1	-20	776-1	0.7	67
Blower Temp (deg F)	120	After Cooler Temp (deg F)	106	
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:	6-10-16			
conducted by:	MG/MD			
Site ID:	B774-776 SVE		Patm (inch hg):	30.09 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-20	774-1	.4	46°F
774-2	-17	774-2	.2	50°F
776-1	-20	776-1	.7	48°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:	6-24-16			
conducted by:	Mark G.			
Site ID:	B774-776 SVI		Patm (inch hg):	30.12 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
774-1	-19	774-1	.4	70°F
774-2	-16	774-2	.2	70F
776-1	-18	776-1	.1	70°F
Blower Temp (deg F)	130°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:	3/24/16			
conducted by:	K. Wilhelmsen / M. Darrow			
Site ID:	785/786		Patm (inch hg):	29.96
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-64	785-1	0.6	52
786-1	-33	786-1	0.5	42
total	-6	total	3.2	57
Blower Temp (deg F)	145	After Cooler Temp (deg F)	106	

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:	4/1/16			
conducted by:	K. Wilhelmsen / D. Smith			
Site ID:	785 / 786		Patm (inch hg):	29.48
Vacuum Gauge:	Vacuum (inch w g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-55	785-1	0.8	49
786-1	-25	786-1	0.5	47
total	4.6	total	3.6	58
Blower Temp (deg F)	110	After Cooler Temp (deg F)	81	

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

* System off on arrival; knockout tank drained and restarted

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	4/8/16			
conducted by:	K. W. Thelmsen			
Site ID:	785/786		Patm (inch hg):	29.61
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-63	785-1	0.6	52
786-1	-33	786-1	0.5	42
total	-5.5	total	3.2	57
Blower Temp (deg F)	146	After Cooler Temp (deg F)	106	
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:	4.19.16			
conducted by:	DP			
Site ID:			Patm (inch hg):	30.17
Vacuum Gauge:	~~Vacuum (inch~~ Temperature w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	~~Temperature (Deg F)~~ Vacuum " H_2O
785-1	~~32 0.6 0.8~~	785-1	0.6 - 0.8	-64
786-1	48	786-1	0.6 - 0.8	-33
total	-6" H_g Vac	total	3.2	64 Temp
Blower Temp (deg F)	155	After Cooler Temp (deg F)	124	

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:	4/29/16			
conducted by:	K. Wilhelmsen			
Site ID:	795/786		Patm (inch hg):	30.07
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1		785-1		
786-1		786-1		
total		total		
Blower Temp (deg F)		After Cooler Temp (deg F)		
Well_iD, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

* System off on arrival; No power to system, likely related to construction activities at Building 785

SSVM Vapor Monitoring Point Vacuum Measurements

Date:	5/11/16			
conducted by:	KU/MG			
Site ID:	785/786		Patm (inch hg):	29.62
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-62	785-1	0.7	56
786-1	-32	786-1	0.6	51
total	6.5	total	3.3	65
Blower Temp (deg F)	155	After Cooler Temp (deg F)	132	
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:	5/20/16			
conducted by:	K. Wilhelmsen			
Site ID:	785/786		Patm (inch hg):	30.24
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-62	785-1	0.7	56
786-1	-32	786-1	0.5	52
total	6.25	total	3.3	68
Blower Temp (deg F)	160	After Cooler Temp (deg F)	134	
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:	6/1/16			
conducted by:	K. Witherspoon			
Site ID:	785/786		Patm (inch hg):	29.65
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-6.2	785-1	0.7	60
786-1	-3.3	786-1	0.6	57
total	6.0	total	3.2	75
Blower Temp (deg F)	165	After Cooler Temp (deg F)	136	
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:	6-10-16			
conducted by:	MG/MD			
Site ID:	B785/786		Patm (inch hg):	30.09 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-62	785-1	.8	58°F
786-1	-33	786-1	.6	55°F
total	4.5(inHG)	total	3.2	62°F
Blower Temp (deg F)	160°F	After Cooler Temp (deg F)	132°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:	6-24-16			
conducted by:	Mark G.			
Site ID:	B785/786 SVI		Patm (inch hg):	30.12 (inHG)
Vacuum Gauge:	Vacuum (inch w.g.)	Magnehelic Gauge:	Differential Pressure (inch w.g.)	Temperature (Deg F)
785-1	-62	785-1	.6	62°F
786-1	-32	786-1	.6	60°F
total	5 (inHG)	total	3.2	88°F
Blower Temp (deg F)	170°F	After Cooler Temp (deg F)	142°F	
Well_ID, Distance from well axis (ft)	Time	Shallow Vacuum (inch w.g.)	Medium Vacuum (inch w.g.)	Deep Vacuum (inch w.g.)

Appendix B

Baldyga, Daniel

From: Wilhelmsen, Karl
Sent: Tuesday, June 28, 2016 12:56 PM
To: Matt Coppola
Cc: Baldyga, Daniel
Subject: RE: FPM - Composite Waste Water Sample
Attachments: 2Q16_785786 KO water sampling results-for disposal.pdf; Attachment 2 - Laboratory Analytical Results.pdf

Hi Matt,

I'm following up on the status of the disposal of 100 gallons of water at Griffiss. We conducted the sampling and attached is the lab data and a table detailing detections. We had two detections, chloromethane and trichloroethene, that were well below their respective USEPA MCLs. Please give instructions on how the water should be disposed of.

Thanks you,

Karl Wilhelmsen
Junior Environmental Engineer
FPM Remediations, Inc.
k.wilhelmsen@fpm-remediations.com
315-371-5772

PLEASE NOTE OUR NEW ADDRESS:
181 Kenwood Avenue, Oneida, NY 13421

From: Matt Coppola [mailto:mcoppola@romecitygov.com]
Sent: Tuesday, March 29, 2016 3:10 PM
To: Wilhelmsen, Karl
Subject: RE: FPM - Composite Waste Water Sample

Good Afternoon Karl,

One sample is good for the discharge planned below. Please scan a copy of the results and forward them to me. I will review and give instructions on how to dispose of the wastewater.

Thank you ,

Matt Coppola
Pretreatment Coordinator
City of Rome New York

315 339 7775 ext 222

From: Wilhelmsen, Karl [mailto:k.wilhelmsen@fpm-remediations.com]
Sent: Tuesday, March 29, 2016 2:49 PM
To: Matt Coppola <mcoppola@romecitygov.com>

Cc: Baldyga, Daniel <d.baldyga@fpm-remediations.com>
Subject: FPM - Composite Waste Water Sample

Hi Matt,

I'm with FPM Remediations Inc., we have a permit for discharging water at Griffiss and I'm emailing to ask a question about waste characterization sampling. We currently have 100 gallons of water generated from a soil vapor extraction system that needs to be disposed of, is one composite water sample sufficient to characterize the wastewater?

Thank you,

Karl Wilhelmsen
Junior Environmental Engineer
FPM Remediations, Inc.
k.wilhelmsen@fpm-remediations.com
315-336-7721 ext. 227

PLEASE NOTE OUR NEW ADDRESS:
181 Kenwood Avenue, Oneida, NY 13421

Table 2-1
Effluent Analytical Results

Sample ID	785786KOWATER040116
Date	4/1/2016
VOCs (ug/L)	
Chloromethane	0.35 J
Trichloroethene	0.18 J

J - The analyte was detected; the quantitation is an estimation.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-81433-1

Job Description: Griffiss AFB 1015-11-01 SVI

For:
FPM Remediations Inc
181 Kenwood Ave
Oneida, NY 13421

Attention: Daniel Baldyga

Approved for release.
Jessica H DeHerrera
Project Manager I
4/18/2016 7:17 PM

Jessica H DeHerrera, Project Manager I
4955 Yarrow Street, Arvada, CO, 80002
jessica.deherrera@testamericainc.com
04/18/2016

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.

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CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB 1015-11-01 SVI
Report Number: 280-81433-1

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

The samples were received on 04/02/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.6°C.

Samples 774776CARBON040116 (280-81433-1) and 785786CARBON040116 (280-81433-2) were canceled for VOC analysis per instructions received on Friday, April 08, 2016 due to the room temperature exceeding the temperature range of 23 +/- 2 degrees Celsius for the duration of the leaching process.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples 785786KOWATER040116 (280-81433-3) and 040116TB (280-81433-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 04/14/2016.

Toluene-d8 (Surr) failed the surrogate recovery criteria high for 785786KOWATER040116 (280-81433-3). This sample did not contain any target analytes; therefore, re-analysis was not performed. The data has been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

IGNITABILITY

Samples 774776CARBON040116 (280-81433-1) and 785786CARBON040116 (280-81433-2) were analyzed for Ignitability in accordance with EPA SW-846 Method 7.1.2. The samples were analyzed on 04/05/2016.

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.: 280-81433-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 320302

Lab Sample ID: IC 280-320302/11 Client Sample ID:

Date Analyzed: 04/12/16 10:33 Lab File ID: G2_3364.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.21	Assign Peak	ilczyszyn d	04/12/16 12:04

Lab Sample ID: IC 280-320302/12 Client Sample ID:

Date Analyzed: 04/12/16 10:52 Lab File ID: G2_3365.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.22	Assign Peak	ilczyszyn d	04/12/16 12:06

Lab Sample ID: IC 280-320302/16 Client Sample ID:

Date Analyzed: 04/12/16 12:10 Lab File ID: G2_3369.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
m-Xylene & p-Xylene	9.83	Wrong peak	ilczyszyn d	04/12/16 12:48

SAMPLE SUMMARY

Client: FPM Remediations Inc

Job Number: 280-81433-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-81433-1	774776CARBON040116	Solid	04/01/2016 1305	04/02/2016 0840
280-81433-2	785786CARBON040116	Solid	04/01/2016 1255	04/02/2016 0840
280-81433-3	785786KOWATER040116	Water	04/01/2016 1055	04/02/2016 0840
280-81433-4TB	040116TB	Water	04/01/2016 1100	04/02/2016 0840

EXECUTIVE SUMMARY - Detections

Client: FPM Remediations Inc Job Number: 280-81433-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-81433-1	**774776CARBON040116**					
Ignitability		NO			No Unit	7.1.2
280-81433-2	**785786CARBON040116**					
Ignitability		NO			No Unit	7.1.2
280-81433-3	**785786KOWATER040116**					
Chloromethane		0.35	J	2.0	ug/L	8260C
Trichloroethene		0.18	J	1.0	ug/L	8260C

METHOD SUMMARY

Client: FPM Remediations Inc Job Number: 280-81433-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
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: 280-81433-1

Method	Analyst	Analyst ID
SW846 8260C	Dukes, Aaron D	ADD
SW846 7.1.2	Woolley, Mark -	MW1

Client Sample ID: **785786KOWATER040116**

Lab Sample ID: 280-81433-3 Date Sampled: 04/01/2016 1055
Client Matrix: Water Date Received: 04/02/2016 0840

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_3453.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1933			Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1933				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U Q	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	0.79	3.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	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	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.40	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	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U Q	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	160	U	71	220
1-Chlorohexane	0.40	U Q	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	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	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromoform	0.40	U Q	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U Q	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U Q	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.35	J	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Cyclohexane	0.80	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc | Job Number: 280-81433-1

Client Sample ID: **785786KOWATER040116**

Lab Sample ID: 280-81433-3 | Date Sampled: 04/01/2016 1055
Client Matrix: Water | Date Received: 04/02/2016 0840

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_3453.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1933			Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1933				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U Q	0.16	1.0
Ethylene Dibromide	0.40	U Q	0.18	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	4.0	U	1.6	5.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylcyclohexane	0.80	U	0.36	2.0
Methylene Chloride	0.80	U	0.32	5.0
m-Xylene & p-Xylene	0.80	U Q	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U Q	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.40	U Q	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
Tetrachloroethene	0.40	U Q	0.20	1.0
Toluene	0.40	U	0.17	1.0
trans-1,2-Dichloroethene	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.18	J	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 120
4-Bromofluorobenzene (Surr)	110		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Toluene-d8 (Surr)	121	Q	85 - 120

Client Sample ID: 040116TB

Lab Sample ID: 280-81433-4TB Date Sampled: 04/01/2016 1100
Client Matrix: Water Date Received: 04/02/2016 0840

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_3454.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1953			Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1953				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	0.79	3.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	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	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.40	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	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	160	U	71	220
1-Chlorohexane	0.40	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	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	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Cyclohexane	0.80	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc

Job Number: 280-81433-1

Client Sample ID: 040116TB

Lab Sample ID: 280-81433-4TB
Client Matrix: Water

Date Sampled: 04/01/2016 1100
Date Received: 04/02/2016 0840

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_3454.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1953			Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1953				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	4.0	U	1.6	5.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylcyclohexane	0.80	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	0.80	U	0.32	1.0
N-Propylbenzene	0.40	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	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 120
4-Bromofluorobenzene (Surr)	106		75 - 120
Dibromofluoromethane (Surr)	100		85 - 115
Toluene-d8 (Surr)	102		85 - 120

General Chemistry

Client Sample ID: **774776CARBON040116**

Lab Sample ID: 280-81433-1 Date Sampled: 04/01/2016 1305
Client Matrix: Solid Date Received: 04/02/2016 0840

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

Analysis Batch: 280-319515 Analysis Date: 04/05/2016 1623 DryWt Corrected: N

General Chemistry

Client Sample ID: **785786CARBON040116**

Lab Sample ID: 280-81433-2 Date Sampled: 04/01/2016 1255
Client Matrix: Solid Date Received: 04/02/2016 0840

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

Analysis Batch: 280-319515 Analysis Date: 04/05/2016 1623 DryWt Corrected: N

Client: FPM Remediations Inc

Job Number: 280-81433-1

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
280-81433-3	785786KOWATER040116	101	98	121Q	110
280-81433-4	040116TB	100	101	102	106
MB 280-320864/6		106	110	110	106
LCS 280-320864/4		98	102	102	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

Method Blank - Batch: 280-320864

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-320864/6	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3452.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1909	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1909				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	0.79	3.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	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	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.40	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	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	160	U	71	220
1-Chlorohexane	0.40	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	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	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Cyclohexane	0.80	U	0.28	2.0

Client: FPM Remediations Inc

Job Number: 280-81433-1

Method Blank - Batch: 280-320864

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-320864/6	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3452.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1909	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1909				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	4.0	U	1.6	5.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylcyclohexane	0.80	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	0.80	U	0.32	1.0
N-Propylbenzene	0.40	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	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	70 - 120
4-Bromofluorobenzene (Surr)	106	75 - 120
Dibromofluoromethane (Surr)	106	85 - 115
Toluene-d8 (Surr)	110	85 - 120

Client: FPM Remediations Inc

Job Number: 280-81433-1

Lab Control Sample - Batch: 280-320864

Method: 8260C
Preparation: 5030B

Lab Sample ID:	LCS 280-320864/4	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3451.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1849	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1849				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	5.10	102	80 - 130	
1,1,1-Trichloroethane	5.00	5.13	103	65 - 130	
1,1,2,2-Tetrachloroethane	5.00	5.09	102	65 - 130	
1,1,2-Trichloroethane	5.00	4.90	98	75 - 125	
1,1-Dichloroethane	5.00	5.09	102	70 - 135	
1,1-Dichloroethene	5.00	4.75	95	70 - 130	
1,1-Dichloropropene	5.00	5.27	105	75 - 130	
1,2,3-Trichlorobenzene	5.00	4.87	97	55 - 140	
1,2,3-Trichloropropane	5.00	5.03	101	75 - 125	
1,2,4-Trichlorobenzene	5.00	5.14	103	65 - 135	
1,2,4-Trimethylbenzene	5.00	5.74	115	75 - 130	
1,2-Dibromo-3-Chloropropane	5.00	4.35	87	50 - 130	J
1,2-Dichlorobenzene	5.00	5.32	106	70 - 120	
1,2-Dichloroethane	5.00	5.07	101	70 - 130	
1,2-Dichloropropane	5.00	5.30	106	75 - 125	
1,3,5-Trimethylbenzene	5.00	5.87	117	75 - 130	
1,3-Dichlorobenzene	5.00	5.44	109	75 - 125	
1,3-Dichloropropane	5.00	5.08	102	75 - 125	
1,4-Dichlorobenzene	5.00	5.44	109	75 - 125	
2,2-Dichloropropane	5.00	5.38	108	70 - 135	
2-Butanone (MEK)	20.0	20.5	103	30 - 150	
2-Chlorotoluene	5.00	5.61	112	75 - 125	
2-Hexanone	20.0	18.1	91	55 - 130	
4-Chlorotoluene	5.00	5.61	112	75 - 130	
4-Isopropyltoluene	5.00	6.04	121	75 - 130	
4-Methyl-2-pentanone (MIBK)	20.0	18.5	92	60 - 135	
Acetone	20.0	23.0	115	40 - 140	
Benzene	5.00	5.28	106	80 - 120	
Bromobenzene	5.00	5.39	108	75 - 125	
Bromoform	5.00	5.00	100	70 - 130	
Bromomethane	5.00	4.12	82	30 - 145	
Carbon disulfide	5.00	4.67	93	35 - 160	
Carbon tetrachloride	5.00	5.20	104	65 - 140	
Chlorobenzene	5.00	5.28	106	80 - 120	
Chlorobromomethane	5.00	4.88	98	65 - 130	
Chlorodibromomethane	5.00	4.87	97	60 - 135	
Chloroethane	5.00	4.75	95	60 - 135	
Chloroform	5.00	5.25	105	65 - 135	
Chloromethane	5.00	4.50	90	40 - 125	
cis-1,2-Dichloroethene	5.00	5.23	105	70 - 125	
cis-1,3-Dichloropropene	5.00	5.35	107	70 - 130	
Dibromomethane	5.00	4.89	98	75 - 125	
Dichlorobromomethane	5.00	5.14	103	75 - 120	
Dichlorodifluoromethane	5.00	4.76	95	30 - 155	
Ethylbenzene	5.00	5.43	109	75 - 125	
Ethylene Dibromide	5.00	4.93	99	80 - 120	

Client: FPM Remediations Inc

Job Number: 280-81433-1

Lab Control Sample - Batch: 280-320864

Method: 8260C
Preparation: 5030B

Lab Sample ID:	LCS 280-320864/4	Analysis Batch:	280-320864	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3451.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	04/14/2016 1849	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	04/14/2016 1849				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	5.00	5.66	113	50 - 140	
Isopropylbenzene	5.00	6.01	120	75 - 125	
Methyl tert-butyl ether	5.00	4.77	95	65 - 125	J
Methylene Chloride	5.00	5.12	102	55 - 140	
m-Xylene & p-Xylene	5.00	5.52	110	75 - 130	
Naphthalene	5.00	4.26	85	55 - 140	
n-Butylbenzene	5.00	6.01	120	70 - 135	
N-Propylbenzene	5.00	5.84	117	70 - 130	
o-Xylene	5.00	5.39	108	80 - 120	
sec-Butylbenzene	5.00	5.80	116	70 - 125	
Styrene	5.00	5.44	109	65 - 135	
tert-Butylbenzene	5.00	5.84	117	70 - 130	
Tetrachloroethene	5.00	5.21	104	45 - 150	
Toluene	5.00	5.78	116	75 - 120	
trans-1,2-Dichloroethene	5.00	5.15	103	60 - 140	
trans-1,3-Dichloropropene	5.00	5.08	102	55 - 140	
Trichloroethene	5.00	5.25	105	70 - 125	
Trichlorofluoromethane	5.00	4.87	97	60 - 145	
Vinyl chloride	5.00	4.70	94	50 - 145	

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

DATA REPORTING QUALIFIERS

Client: FPM Remediations Inc Job Number: 280-81433-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	Q	One or more quality control criteria failed.
	U	Undetected at the Limit of Detection.

Client: FPM Remediations Inc Job Number: 280-81433-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-320864					
LCS 280-320864/4	Lab Control Sample	T	Water	8260C	
MB 280-320864/6	Method Blank	T	Water	8260C	
280-81433-3	785786KOWATER040116	T	Water	8260C	
280-81433-4TB	040116TB	T	Water	8260C	

Report Basis
T = Total

General Chemistry					
Analysis Batch:280-319515					
280-81433-1	774776CARBON040116	T	Solid	7.1.2	
280-81433-2	785786CARBON040116	T	Solid	7.1.2	

Report Basis
T = Total

Client: FPM Remediations Inc Job Number: 280-81433-1

Laboratory Chronicle

Lab ID: 280-81433-1 **Client ID: 774776CARBON040116**

Sample Date/Time: 04/01/2016 13:05 Received Date/Time: 04/02/2016 08:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7.1.2	280-81433-B-1		280-319515		04/05/2016 16:23	1	TAL DEN	MW1

Lab ID: 280-81433-2 **Client ID: 785786CARBON040116**

Sample Date/Time: 04/01/2016 12:55 Received Date/Time: 04/02/2016 08:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:7.1.2	280-81433-B-2		280-319515		04/05/2016 16:23	1	TAL DEN	MW1

Lab ID: 280-81433-3 **Client ID: 785786KOWATER040116**

Sample Date/Time: 04/01/2016 10:55 Received Date/Time: 04/02/2016 08:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-81433-A-3		280-320864		04/14/2016 19:33	1	TAL DEN	ADD
A:8260C	280-81433-A-3		280-320864		04/14/2016 19:33	1	TAL DEN	ADD

Lab ID: 280-81433-4 **Client ID: 040116TB**

Sample Date/Time: 04/01/2016 11:00 Received Date/Time: 04/02/2016 08:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-81433-A-4		280-320864		04/14/2016 19:53	1	TAL DEN	ADD
A:8260C	280-81433-A-4		280-320864		04/14/2016 19:53	1	TAL DEN	ADD

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 280-320864/6		280-320864		04/14/2016 19:09	1	TAL DEN	ADD
A:8260C	MB 280-320864/6		280-320864		04/14/2016 19:09	1	TAL DEN	ADD

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 280-320864/4		280-320864		04/14/2016 18:49	1	TAL DEN	ADD
A:8260C	LCS 280-320864/4		280-320864		04/14/2016 18:49	1	TAL DEN	ADD

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-2cleve+AVA_00015	04/30/16	01/01/16	P&T Methanol, Lot 118655	20 mL	MV-568720_00010	405 uL	Acrolein	399.938 ug/mL
					MV-569723_00001	320 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-569724_00004	320 uL	Vinyl acetate	80 ug/mL
.MV-568720_00010	04/30/16	RESTEK, Lot A0115761			(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569723_00001	04/30/18	RESTEK, Lot A0110788			(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.MV-569724_00004	06/30/16	RESTEK, Lot A0115764			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
MV-567649-D_00001	02/28/18	RESTEK, Lot A093504			(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_00066	09/14/16	02/22/16	P&T Methanol, Lot 118655	50 mL	MV-567650_00023	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_00023	07/31/20	Restek, Lot A0112455			(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_00044	09/16/16	03/16/16	P&T Methanol, Lot 118655	10 mL	MV-569721_00002	128 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-569722_00001	160 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-569727_00002	640 uL	Cyclohexanone	1600 ug/mL
.MV-569721_00002	08/31/18	RESTEK, Lot A0113194			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722_00001	04/30/18	RESTEK, Lot A0110070			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569727_00002	04/30/18	RESTEK, Lot A0110092			(Purchased Reagent)		Cyclohexanone	25000 ug/mL
MV-Gas/Ket B_00026	09/16/16	03/16/16	P&T Methanol, Lot 118655	10 mL	MV-569721.sec_00002	128 uL	2-Butanone (MEK)	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-569722.sec_00002	160 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-569721.sec_00002	07/31/18		RESTEK, Lot A0112937		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722.sec_00002	08/31/18		RESTEK, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
MV-Main A_00026	09/01/16	03/01/16	P&T Methanol, Lot 118655	25 mL	MV-569720_00001	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
							2-Methyl-2-propanol	400 ug/mL
							3-Chloro-1-propene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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-CUS17739_00001	500 uL	1-Chlorohexane	20 ug/mL
							2-Pentanone	80 ug/mL
							sec-Butyl Alcohol	600 ug/mL
.MV-569720_00001	01/31/17		RESTEK, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.MV-CUS17739_00001	07/31/17		RESTEK, Lot CM-3152		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00014	08/01/16	02/01/16	P&T Methanol, Lot 85233	20 mL	MV-569720.sec_00001	320 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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-CUS17739.s_00001	800 uL	1-Chlorohexane	40 ug/mL
.MV-569720.sec_00001	01/31/17		RESTEK, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

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	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.MV-CUS17739.s_00001	07/31/17		RESTEK, Lot CM-3155		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
MV-Supp A_00018	06/30/16	01/01/16	P&T Methanol, Lot 118655	10 mL	mv-569725_00004	160 uL	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
					mv-569728_00001	200 uL	Acetonitrile	500 ug/mL
							Ethanol	2000 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					mv-S68336_00001	800 uL	cis-1,4-Dichloro-2-butene	80 ug/mL
							Propene oxide	4000 ug/mL
.mv-569725_00004	06/30/16		Restek, Lot A0115808		(Purchased Reagent)		2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
.mv-569728_00001	01/31/17		RESTEK, Lot A0108216		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.mv-S68336_00001	08/04/16		AccuStandard, Lot 215071432		(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
							Propene oxide	50000 ug/mL

Certification Summary

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

TestAmerica Job ID: 280-81433-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	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	Connecticut	State Program	1	PH-0686
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 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	T104704183-15-11
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.: 280-81433-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (60. ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
785786KOWATER040116	280-81433-3	101	98	121 Q	110
040116TB	280-81433-4	100	101	102	106
	MB 280-320864/6	106	110	110	106
	LCS 280-320864/4	98	102	102	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.: 280-81433-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3451.D

Lab ID: LCS 280-320864/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.10	102	80-130	
1,1,1-Trichloroethane	5.00	5.13	103	65-130	
1,1,2,2-Tetrachloroethane	5.00	5.09	102	65-130	
1,1,2-Trichloroethane	5.00	4.90	98	75-125	
1,1-Dichloroethane	5.00	5.09	102	70-135	
1,1-Dichloroethene	5.00	4.75	95	70-130	
1,1-Dichloropropene	5.00	5.27	105	75-130	
1,2,3-Trichlorobenzene	5.00	4.87	97	55-140	
1,2,3-Trichloropropane	5.00	5.03	101	75-125	
1,2,4-Trichlorobenzene	5.00	5.14	103	65-135	
1,2,4-Trimethylbenzene	5.00	5.74	115	75-130	
1,2-Dibromo-3-Chloropropane	5.00	4.35 J	87	50-130	
1,2-Dichlorobenzene	5.00	5.32	106	70-120	
1,2-Dichloroethane	5.00	5.07	101	70-130	
1,2-Dichloropropane	5.00	5.30	106	75-125	
1,3,5-Trimethylbenzene	5.00	5.87	117	75-130	
1,3-Dichlorobenzene	5.00	5.44	109	75-125	
1,3-Dichloropropane	5.00	5.08	102	75-125	
1,4-Dichlorobenzene	5.00	5.44	109	75-125	
2,2-Dichloropropane	5.00	5.38	108	70-135	
2-Butanone (MEK)	20.0	20.5	103	30-150	
2-Chlorotoluene	5.00	5.61	112	75-125	
2-Hexanone	20.0	18.1	91	55-130	
4-Chlorotoluene	5.00	5.61	112	75-130	
4-Isopropyltoluene	5.00	6.04	121	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	18.5	92	60-135	
Acetone	20.0	23.0	115	40-140	
Benzene	5.00	5.28	106	80-120	
Bromobenzene	5.00	5.39	108	75-125	
Bromoform	5.00	5.00	100	70-130	
Bromomethane	5.00	4.12	82	30-145	
Carbon disulfide	5.00	4.67	93	35-160	
Carbon tetrachloride	5.00	5.20	104	65-140	
Chlorobenzene	5.00	5.28	106	80-120	
Chlorobromomethane	5.00	4.88	98	65-130	
Chlorodibromomethane	5.00	4.87	97	60-135	
Chloroethane	5.00	4.75	95	60-135	
Chloroform	5.00	5.25	105	65-135	
Chloromethane	5.00	4.50	90	40-125	
cis-1,2-Dichloroethene	5.00	5.23	105	70-125	
cis-1,3-Dichloropropene	5.00	5.35	107	70-130	
Dibromomethane	5.00	4.89	98	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.: 280-81433-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3451.D

Lab ID: LCS 280-320864/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorobromomethane	5.00	5.14	103	75-120	
Dichlorodifluoromethane	5.00	4.76	95	30-155	
Ethylbenzene	5.00	5.43	109	75-125	
Ethylene Dibromide	5.00	4.93	99	80-120	
Hexachlorobutadiene	5.00	5.66	113	50-140	
Isopropylbenzene	5.00	6.01	120	75-125	
Methyl tert-butyl ether	5.00	4.77 J	95	65-125	
Methylene Chloride	5.00	5.12	102	55-140	
m-Xylene & p-Xylene	5.00	5.52	110	75-130	
Naphthalene	5.00	4.26	85	55-140	
n-Butylbenzene	5.00	6.01	120	70-135	
N-Propylbenzene	5.00	5.84	117	70-130	
o-Xylene	5.00	5.39	108	80-120	
sec-Butylbenzene	5.00	5.80	116	70-125	
Styrene	5.00	5.44	109	65-135	
tert-Butylbenzene	5.00	5.84	117	70-130	
Tetrachloroethene	5.00	5.21	104	45-150	
Toluene	5.00	5.78	116	75-120	
trans-1,2-Dichloroethene	5.00	5.15	103	60-140	
trans-1,3-Dichloropropene	5.00	5.08	102	55-140	
Trichloroethene	5.00	5.25	105	70-125	
Trichlorofluoromethane	5.00	4.87	97	60-145	
Vinyl chloride	5.00	4.70	94	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.: 280-81433-1

SDG No.:

Lab File ID: G2_3452.D Lab Sample ID: MB 280-320864/6

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

Instrument ID: VMS_G2 Date Analyzed: 04/14/2016 19:09

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 280-320864/4	G2_3451.D	04/14/2016 18:49
785786KOWATER040116	280-81433-3	G2_3453.D	04/14/2016 19:33
040116TB	280-81433-4	G2_3454.D	04/14/2016 19:53

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab File ID: G2_3362.D BFB Injection Date: 04/12/2016

Instrument ID: VMS_G2 BFB Injection Time: 09:04

Analysis Batch No.: 320302

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.7	
175	5.0 - 9.0 % of mass 174	5.4	(6.8) 1
176	95.0 - 101.0 % of mass 174	79.1	(99.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(7.1) 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
	IC 280-320302/10	G2_3363.D	04/12/2016	10:14
	IC 280-320302/11	G2_3364.D	04/12/2016	10:33
	IC 280-320302/12	G2_3365.D	04/12/2016	10:52
	IC 280-320302/13	G2_3366.D	04/12/2016	11:12
	IC 280-320302/14	G2_3367.D	04/12/2016	11:31
	IC 280-320302/15	G2_3368.D	04/12/2016	11:50
	IC 280-320302/16	G2_3369.D	04/12/2016	12:10
	IC 280-320302/18	G2_3361.D	04/12/2016	12:48
	IC 280-320302/19	G2_3373.D	04/12/2016	13:31
	IC 280-320302/20	G2_3374.D	04/12/2016	13:51
	ICIS 280-320302/21	G2_3375.D	04/12/2016	14:10
	IC 280-320302/22	G2_3376.D	04/12/2016	14:29
	IC 280-320302/23	G2_3377.D	04/12/2016	14:49
	ICV 280-320302/24	G2_3378.D	04/12/2016	15:08
	ICV 280-320302/17	G2_3379.D	04/12/2016	15:28

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab File ID: G2_3448.D BFB Injection Date: 04/14/2016

Instrument ID: VMS_G2 BFB Injection Time: 17:43

Analysis Batch No.: 320864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.8	
75	30.0 - 60.0 % of mass 95	52.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	78.4	
175	5.0 - 9.0 % of mass 174	5.8	(7.4) 1
176	95.0 - 101.0 % of mass 174	75.5	(96.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.4) 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 280-320864/2	G2_3449.D	04/14/2016	18:06
	CCV 280-320864/3	G2_3450.D	04/14/2016	18:26
	LCS 280-320864/4	G2_3451.D	04/14/2016	18:49
	MB 280-320864/6	G2_3452.D	04/14/2016	19:09
785786KOWATER040116	280-81433-3	G2_3453.D	04/14/2016	19:33
040116TB	280-81433-4	G2_3454.D	04/14/2016	19:53

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Sample No.: ICIS 280-320302/21 Date Analyzed: 04/12/2016 14:10

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): G2_3375.D Heated Purge: (Y/N) N

Calibration ID: 25662

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		168192	5.47	1661633	7.42	334145	9.69
UPPER LIMIT		336384	5.97	3323266	7.92	668290	10.19
LOWER LIMIT		84096	4.97	830817	6.92	167073	9.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-320302/24		205457	5.47	1825595	7.42	372912	9.69
ICV 280-320302/17		200952	5.47	1748823	7.42	355573	9.69
CCV 280-320864/2		182077	5.47	1779973	7.42	367539	9.69
CCV 280-320864/3		166264	5.47	1689676	7.42	338038	9.69
LCS 280-320864/4		174718	5.47	1877963	7.42	384077	9.69
MB 280-320864/6		159957	5.47	1709476	7.42	336754	9.69
280-81433-3	785786KOWATER040116	86396	5.47	1428951	7.42	259408	9.69
280-81433-4	040116TB	127561	5.47	1552620	7.42	312803	9.69

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.: 280-81433-1

SDG No.:

Sample No.: ICIS 280-320302/21 Date Analyzed: 04/12/2016 14:10

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): G2_3375.D Heated Purge: (Y/N) N

Calibration ID: 25662

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		453484	11.49				
UPPER LIMIT		906968	11.99				
LOWER LIMIT		226742	10.99				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-320302/24		508022	11.49				
ICV 280-320302/17		532633	11.49				
CCV 280-320864/2		552849	11.49				
CCV 280-320864/3		451690	11.49				
LCS 280-320864/4		552302	11.49				
MB 280-320864/6		452008	11.49				
280-81433-3	785786KOWATER040116	323742	11.49				
280-81433-4	040116TB	405057	11.49				

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.: 280-81433-1

SDG No.:

Client Sample ID: 785786KOWATER040116 | Lab Sample ID: 280-81433-3

Matrix: Water | Lab File ID: G2_3453.D

Analysis Method: 8260C | Date Collected: 04/01/2016 10:55

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:33

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.: 320864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U Q	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U Q	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	160	U	220	160	71
544-10-5	1-Chlorohexane	0.40	U Q	1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U Q	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: 785786KOWATER040116 | Lab Sample ID: 280-81433-3

Matrix: Water | Lab File ID: G2_3453.D

Analysis Method: 8260C | Date Collected: 04/01/2016 10:55

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:33

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.: 320864 | 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	0.40	U Q	1.0	0.40	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	0.10
124-48-1	Chlorodibromomethane	0.40	U Q	1.0	0.40	0.17
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
67-66-3	Chloroform	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.35	J	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
110-82-7	Cyclohexane	0.80	U	2.0	0.80	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U Q	1.0	0.40	0.16
106-93-4	Ethylene Dibromide	0.40	U Q	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	4.0	U	5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
108-87-2	Methylcyclohexane	0.80	U	2.0	0.80	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 Q	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	0.16
95-47-6	o-Xylene	0.40	U Q	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 Q	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 Q	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	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.18	J	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: 785786KOWATER040116 | Lab Sample ID: 280-81433-3

Matrix: Water | Lab File ID: G2_3453.D

Analysis Method: 8260C | Date Collected: 04/01/2016 10:55

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:33

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.: 320864 | 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)	110		75-120
1868-53-7	Dibromofluoromethane (Surr)	101		85-115
2037-26-5	Toluene-d8 (Surr)	121	Q	85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3453.D
Lims ID: 280-81433-A-3 Lab Sample ID: 280-81433-3
Client ID: 785786KOWATER040116
Sample Type: Client
Inject. Date: 14-Apr-2016 19:33:30 ALS Bottle#: 14 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-81433-a-3 PH<2
Operator ID: DUKESA Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 20:18:38

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 TBA-d9 (IS)	65	5.473	5.473	0.000	0	86396	250.0	
*	2 Fluorobenzene	96	7.420	7.419	0.001	98	1428951	12.5	
*	3 Chlorobenzene-d5	119	9.693	9.686	0.007	89	259408	12.5	
*	4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	323742	12.5	
*	5 1,4-Dioxane-d8	96		0.000				ND	
$	6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	300518	10.1	
$	7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	98	248146	9.83	
$	8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1429299	12.1	
$	9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	86	360986	11.0	
	13 Dichlorodifluoromethane	85		3.811				ND	
	14 Chloromethane	50	4.035	4.007	0.028	97	18413	0.3471	
	16 Vinyl chloride	62		4.160				ND	
	19 Bromomethane	94		4.496				ND	
	20 Chloroethane	64		4.565				ND	
	22 Trichlorofluoromethane	101		4.789				ND	
	29 Acetone	43		5.194				ND	
	31 1,1,2-Trichloro-1,2,2-trif	151		5.222				ND	
	32 1,1-Dichloroethene	96		5.236				ND	
	35 Methyl acetate	43		5.431				ND	
	37 Carbon disulfide	76		5.501				ND	
	39 Methylene Chloride	84		5.571				ND	
	41 Methyl tert-butyl ether	73		5.767				ND	
	42 trans-1,2-Dichloroethene	96		5.794				ND	
	46 1,1-Dichloroethane	63		6.111				ND	
	50 2-Butanone (MEK)	43		6.476				ND	
	53 cis-1,2-Dichloroethene	96		6.540				ND	
	54 2,2-Dichloropropane	77		6.576				ND	
	56 Chlorobromomethane	128		6.733				ND	
	57 Chloroform	83		6.740				ND	
	60 1,1,1-Trichloroethane	97		6.969				ND	
	61 Cyclohexane	56		7.048				ND	
	62 1,1-Dichloropropene	75		7.069				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
63 Carbon tetrachloride	117		7.112				ND	
64 1,2-Dichloroethane	62		7.212				ND	
66 Benzene	78		7.248				ND	
69 Trichloroethene	95	7.706	7.705	0.001	95	7237	0.1805	
72 1,2-Dichloropropane	63		7.891				ND	
73 Methylcyclohexane	55		7.913				ND	
74 1,4-Dioxane	88		7.934				ND	
75 Dibromomethane	93		7.991				ND	
76 Dichlorobromomethane	83		8.063				ND	
79 cis-1,3-Dichloropropene	75		8.392				ND	
80 4-Methyl-2-pentanone (MIBK	43		8.442				ND	
81 Toluene	91		8.678				ND	
83 trans-1,3-Dichloropropene	75		8.764				ND	
84 1,1,2-Trichloroethane	97		8.921				ND	
85 2-Hexanone	43		9.042				ND	
86 1,3-Dichloropropane	76		9.057				ND	
87 Tetrachloroethene	164		9.093				ND	
88 Chlorodibromomethane	129		9.250				ND	
90 Ethylene Dibromide	107		9.371				ND	
91 1-Chlorohexane	91		9.607				ND	
92 Chlorobenzene	112		9.715				ND	
93 1,1,1,2-Tetrachloroethane	131		9.750				ND	
94 Ethylbenzene	106		9.758				ND	
95 m-Xylene & p-Xylene	106		9.829				ND	
96 Styrene	104		10.144				ND	
97 o-Xylene	106		10.144				ND	
98 Bromoform	173		10.330				ND	
99 Isopropylbenzene	105		10.401				ND	
102 1,1,2,2-Tetrachloroethane	83		10.594				ND	
104 1,2,3-Trichloropropane	110		10.658				ND	
105 Bromobenzene	156		10.708				ND	
106 N-Propylbenzene	120		10.716				ND	
107 1,3,5-Trimethylbenzene	105		10.823				ND	
108 2-Chlorotoluene	126		10.830				ND	
109 4-Chlorotoluene	126		10.909				ND	
110 tert-Butylbenzene	119		11.116				ND	
111 1,2,4-Trimethylbenzene	105		11.145				ND	
112 sec-Butylbenzene	134		11.295				ND	
113 4-Isopropyltoluene	119		11.381				ND	
114 1,3-Dichlorobenzene	146		11.445				ND	
116 1,4-Dichlorobenzene	146		11.509				ND	
117 n-Butylbenzene	91		11.738				ND	
118 1,2-Dichlorobenzene	146		11.860				ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568				ND	
121 1,2,4-Trichlorobenzene	180		13.497				ND	
122 Hexachlorobutadiene	225		13.647				ND	
123 Naphthalene	128		13.840				ND	
124 1,2,3-Trichlorobenzene	180		14.148				ND	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent

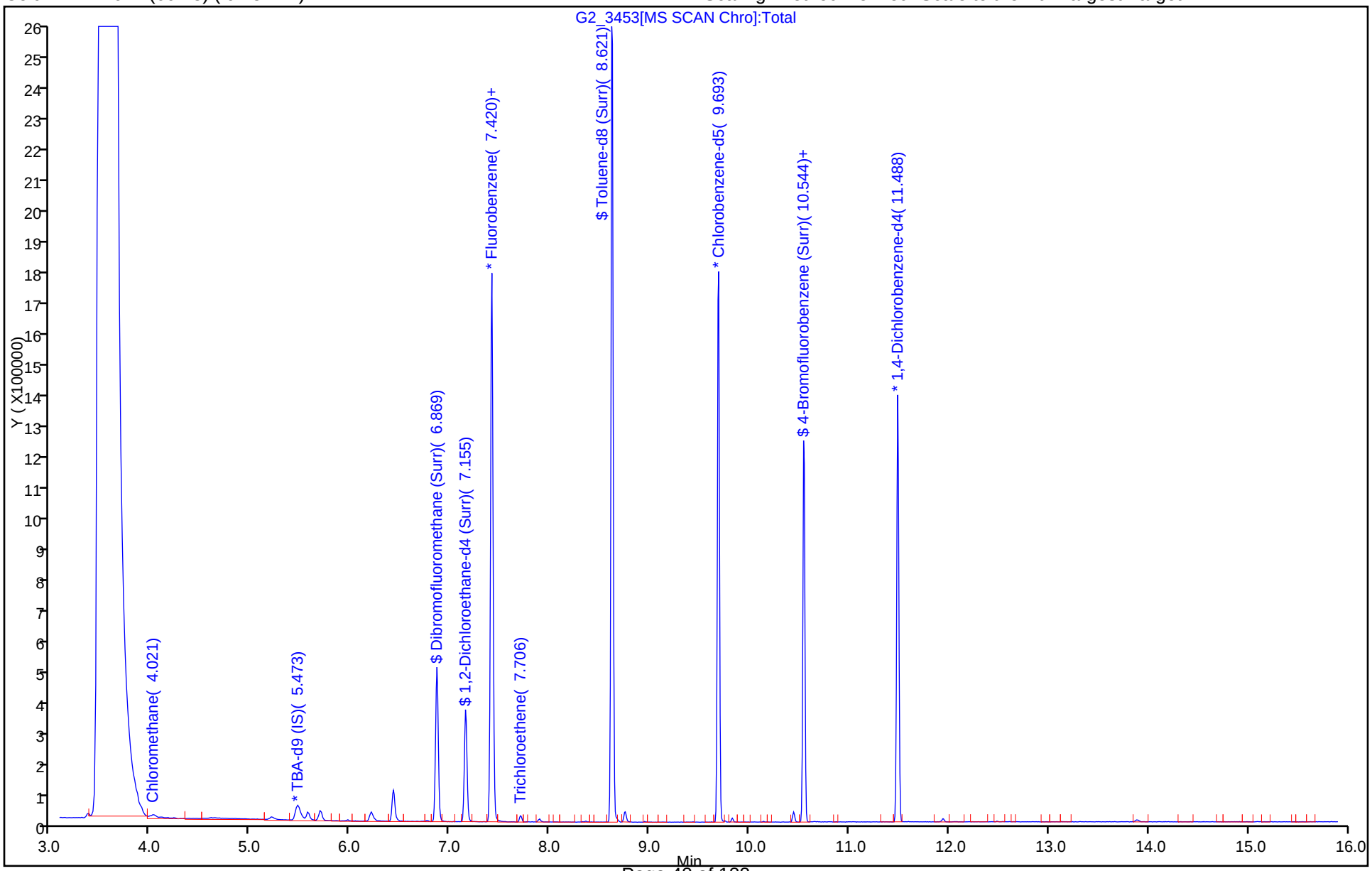
Report Date: 15-Apr-2016 16:15:30 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3453.D

Injection Date:	14-Apr-2016 19:33:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	280-81433-A-3	Lab Sample ID:	280-81433-3	Worklist Smp#:	10
Client ID:	785786KOWATER040116				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



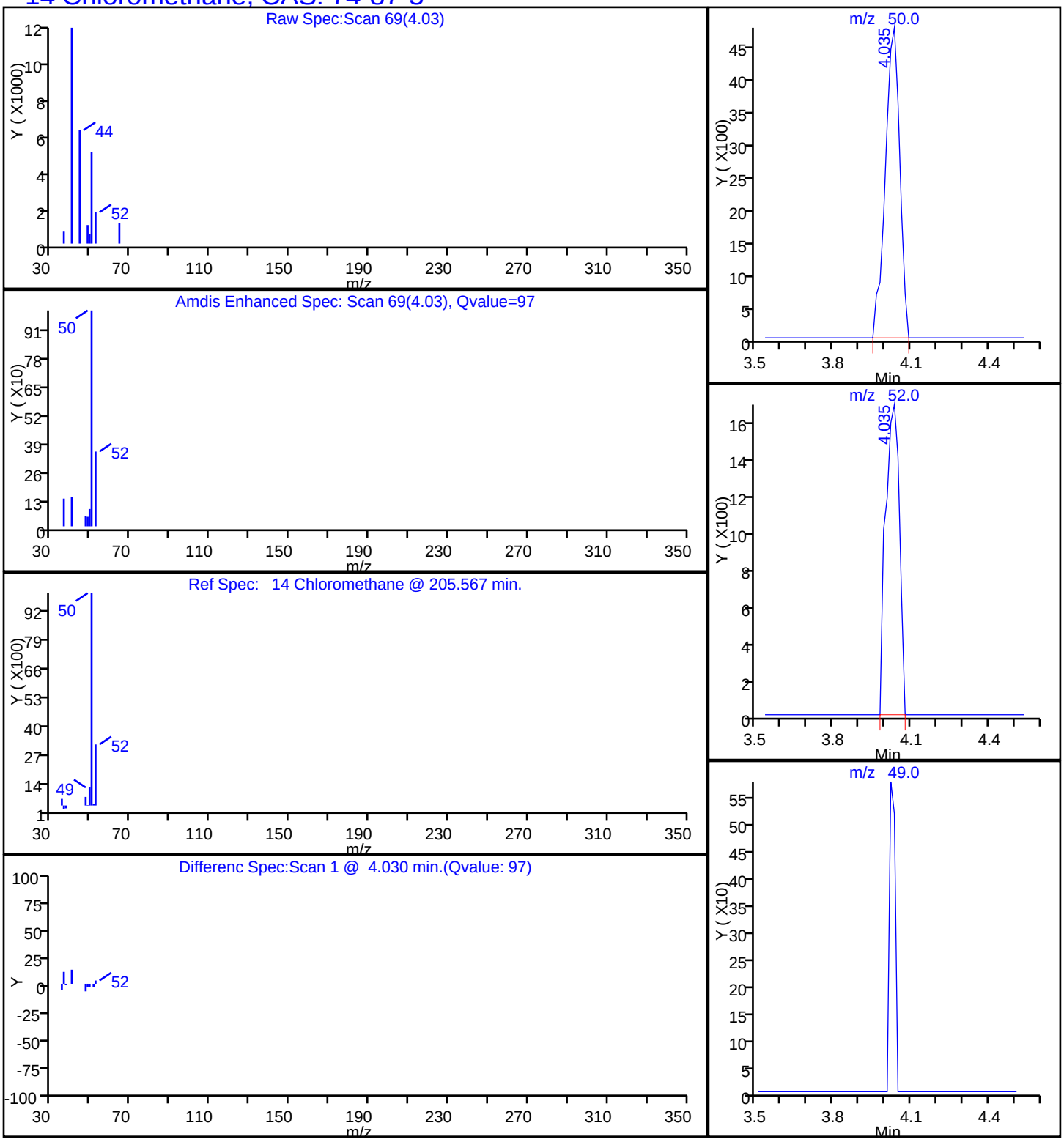
Report Date: 15-Apr-2016 16:15:30 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3453.D

Injection Date:	14-Apr-2016 19:33:30	Instrument ID:	VMS_G2
Lims ID:	280-81433-A-3	Lab Sample ID:	280-81433-3
Client ID:	785786KOWATER040116		
Operator ID:	DUKESA	ALS Bottle#:	14 Worklist Smp#: 10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

14 Chloromethane, CAS: 74-87-3



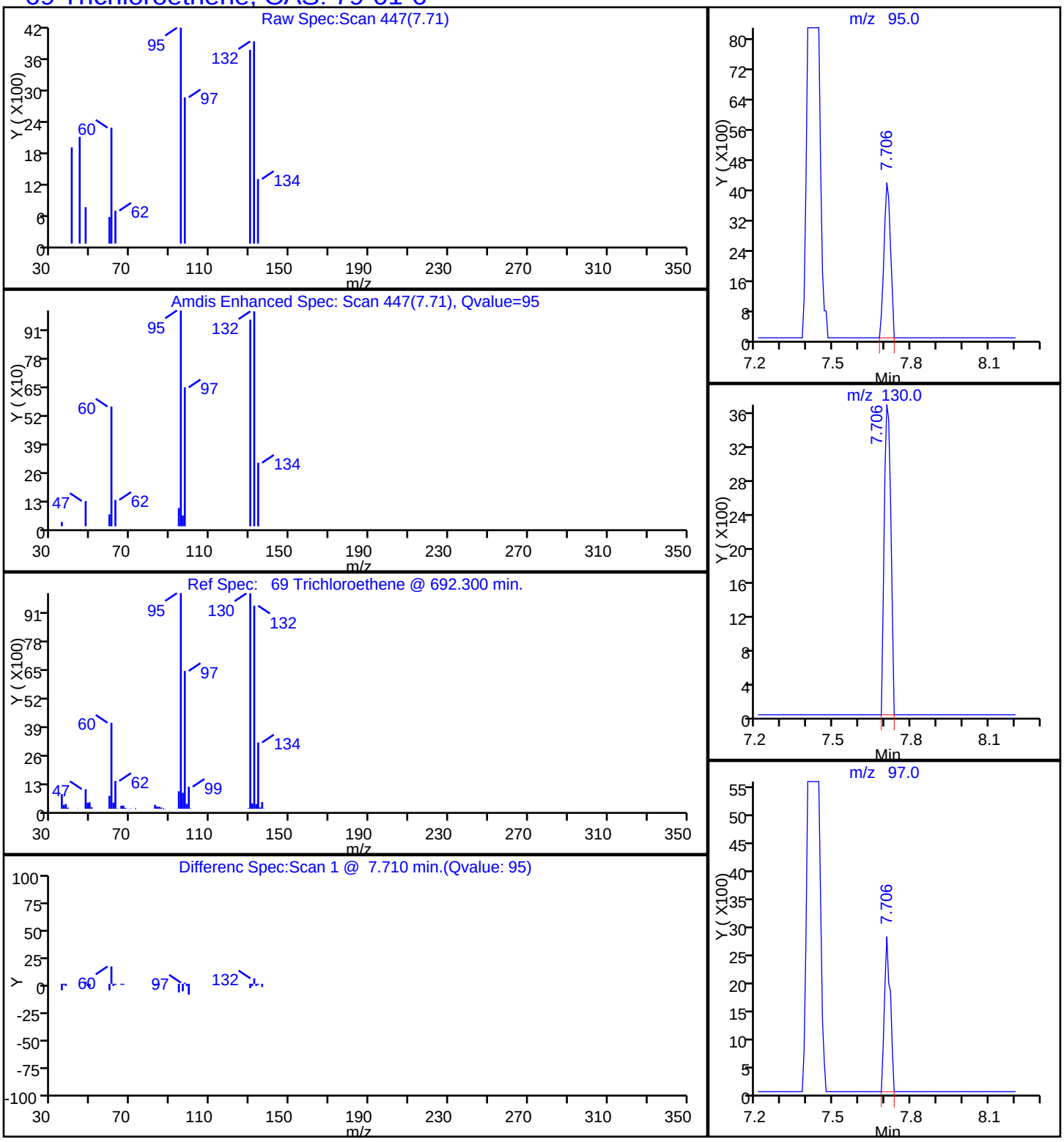
Report Date: 15-Apr-2016 16:15:30 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3453.D

Injection Date:	14-Apr-2016 19:33:30	Instrument ID:	VMS_G2
Lims ID:	280-81433-A-3	Lab Sample ID:	280-81433-3
Client ID:	785786KOWATER040116		
Operator ID:	DUKESA	ALS Bottle#:	14 Worklist Smp#: 10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN

69 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: 040116TB | Lab Sample ID: 280-81433-4

Matrix: Water | Lab File ID: G2_3454.D

Analysis Method: 8260C | Date Collected: 04/01/2016 11:00

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:53

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.: 320864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	160	U	220	160	71
544-10-5	1-Chlorohexane	0.40	U	1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: 040116TB | Lab Sample ID: 280-81433-4

Matrix: Water | Lab File ID: G2_3454.D

Analysis Method: 8260C | Date Collected: 04/01/2016 11:00

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:53

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.: 320864 | 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	0.40	U	1.0	0.40	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	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	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
110-82-7	Cyclohexane	0.80	U	2.0	0.80	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	4.0	U	5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
108-87-2	Methylcyclohexane	0.80	U	2.0	0.80	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	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: 040116TB | Lab Sample ID: 280-81433-4

Matrix: Water | Lab File ID: G2_3454.D

Analysis Method: 8260C | Date Collected: 04/01/2016 11:00

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:53

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.: 320864 | 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)	106		75-120
1868-53-7	Dibromofluoromethane (Surr)	100		85-115
2037-26-5	Toluene-d8 (Surr)	102		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3454.D
Lims ID: 280-81433-A-4 Lab Sample ID: 280-81433-4
Client ID: 040116TB
Sample Type: Client
Inject. Date: 14-Apr-2016 19:53:30 ALS Bottle#: 15 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-81433-a-4 PH<2
Operator ID: DUKESA Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 20:19:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	5.473	5.473	0.000	0	127561	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1552620	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.686	0.007	89	312803	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	405057	12.5	
* 5 1,4-Dioxane-d8	96		0.000				ND	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	323316	10.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	275898	10.1	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1457472	10.2	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	86	434112	10.6	
13 Dichlorodifluoromethane	85		3.811				ND	
14 Chloromethane	50		4.007				ND	
16 Vinyl chloride	62		4.160				ND	
19 Bromomethane	94		4.496				ND	
20 Chloroethane	64		4.565				ND	
22 Trichlorofluoromethane	101		4.789				ND	
29 Acetone	43		5.194				ND	
31 1,1,2-Trichloro-1,2,2-trif	151		5.222				ND	
32 1,1-Dichloroethene	96		5.236				ND	
35 Methyl acetate	43		5.431				ND	
37 Carbon disulfide	76		5.501				ND	
39 Methylene Chloride	84		5.571				ND	
41 Methyl tert-butyl ether	73		5.767				ND	
42 trans-1,2-Dichloroethene	96		5.794				ND	
46 1,1-Dichloroethane	63		6.111				ND	
50 2-Butanone (MEK)	43		6.476				ND	
53 cis-1,2-Dichloroethene	96		6.540				ND	
54 2,2-Dichloropropane	77		6.576				ND	
56 Chlorobromomethane	128		6.733				ND	
57 Chloroform	83		6.740				ND	
60 1,1,1-Trichloroethane	97		6.969				ND	
61 Cyclohexane	56		7.048				ND	
62 1,1-Dichloropropene	75		7.069				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
63 Carbon tetrachloride	117		7.112				ND	
64 1,2-Dichloroethane	62		7.212				ND	
66 Benzene	78		7.248				ND	
69 Trichloroethene	95		7.705				ND	
72 1,2-Dichloropropane	63		7.891				ND	
73 Methylcyclohexane	55		7.913				ND	
74 1,4-Dioxane	88		7.934				ND	
75 Dibromomethane	93		7.991				ND	
76 Dichlorobromomethane	83		8.063				ND	
79 cis-1,3-Dichloropropene	75		8.392				ND	
80 4-Methyl-2-pentanone (MIBK	43		8.442				ND	
81 Toluene	91	8.671	8.678	-0.007	98	17723	0.1050	
83 trans-1,3-Dichloropropene	75		8.764				ND	
84 1,1,2-Trichloroethane	97		8.921				ND	
85 2-Hexanone	43		9.042				ND	
86 1,3-Dichloropropane	76		9.057				ND	
87 Tetrachloroethene	164		9.093				ND	
88 Chlorodibromomethane	129		9.250				ND	
90 Ethylene Dibromide	107		9.371				ND	
91 1-Chlorohexane	91		9.607				ND	
92 Chlorobenzene	112		9.715				ND	
93 1,1,1,2-Tetrachloroethane	131		9.750				ND	
94 Ethylbenzene	106		9.758				ND	
95 m-Xylene & p-Xylene	106		9.829				ND	
96 Styrene	104		10.144				ND	
97 o-Xylene	106		10.144				ND	
98 Bromoform	173		10.330				ND	
99 Isopropylbenzene	105		10.401				ND	
102 1,1,2,2-Tetrachloroethane	83		10.594				ND	
104 1,2,3-Trichloropropane	110		10.658				ND	
105 Bromobenzene	156		10.708				ND	
106 N-Propylbenzene	120		10.716				ND	
107 1,3,5-Trimethylbenzene	105		10.823				ND	
108 2-Chlorotoluene	126		10.830				ND	
109 4-Chlorotoluene	126		10.909				ND	
110 tert-Butylbenzene	119		11.116				ND	
111 1,2,4-Trimethylbenzene	105		11.145				ND	
112 sec-Butylbenzene	134		11.295				ND	
113 4-Isopropyltoluene	119		11.381				ND	
114 1,3-Dichlorobenzene	146		11.445				ND	
116 1,4-Dichlorobenzene	146		11.509				ND	
117 n-Butylbenzene	91		11.738				ND	
118 1,2-Dichlorobenzene	146		11.860				ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568				ND	
121 1,2,4-Trichlorobenzene	180		13.497				ND	
122 Hexachlorobutadiene	225		13.647				ND	
123 Naphthalene	128		13.840				ND	
124 1,2,3-Trichlorobenzene	180		14.148				ND	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent

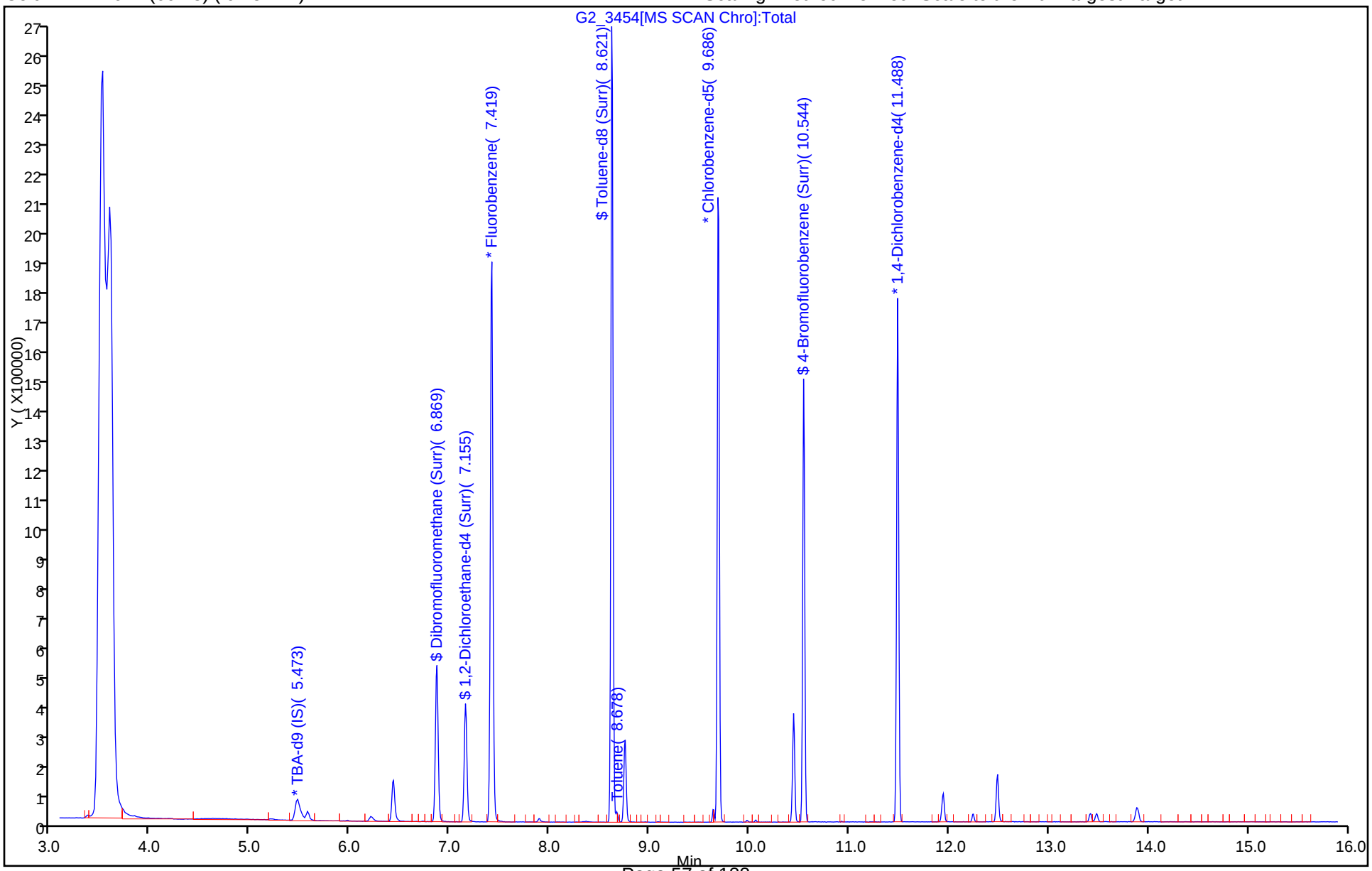
Report Date: 15-Apr-2016 16:15:34 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3454.D

Injection Date:	14-Apr-2016 19:53:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	280-81433-A-4	Lab Sample ID:	280-81433-4	Worklist Smp#:	11
Client ID:	040116TB				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/10	G2_3363.D
Level 2	IC 280-320302/11	G2_3364.D
Level 3	IC 280-320302/12	G2_3365.D
Level 4	IC 280-320302/13	G2_3366.D
Level 5	IC 280-320302/14	G2_3367.D
Level 6	IC 280-320302/15	G2_3368.D
Level 7	IC 280-320302/16	G2_3369.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	+++++ 0.3661	0.4019 0.3732	0.4369	0.4233	0.4845	Ave		0.4143				10.6		15.0			
Chloromethane	+++++ 0.3968	0.5189 0.3923	0.4879	0.4567	0.5319	Ave		0.4641			0.1000	12.9		15.0			
Vinyl chloride	+++++ 0.3924	0.5112 0.3856	0.4801	0.4564	0.5211	Ave		0.4578				12.7		30.0			
Bromomethane	+++++ 0.2449	0.3302 0.2231	0.3078	0.2942	0.3267	Lin	0.4512	0.2195							0.9940		0.9900
Chloroethane	+++++ 0.2367	0.3285 0.2252	0.3052	0.3032	0.3190	Lin	0.4080	0.2205							0.9960		0.9900
Dichlorofluoromethane	+++++ 0.6675	0.8891 +++++	0.7777	0.7584	0.8599	Ave		0.7905				11.1		15.0			
Trichlorofluoromethane	+++++ 0.5144	0.6731 0.5381	0.6128	0.5840	0.6604	Ave		0.5971				10.7		15.0			
Ethyl ether	+++++ 0.1562	0.1501 0.1667	0.1615	0.1544	0.1853	Ave		0.1624				7.8		15.0			
Acrolein	+++++ 0.0137	0.0146 0.0145	0.0147	0.0136	0.0159	Ave		0.0145				5.7		15.0			
Acetone	+++++ 0.0239	0.0374 0.0246	0.0324	0.0298	0.0315	Lin1	0.0693	0.0246							0.9930		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2578	0.3147 0.2719	0.3051	0.2909	0.3322	Ave		0.2954				9.3		15.0			
1,1-Dichloroethene	+++++ 0.3339	0.3543 0.3515	0.3542	0.3554	0.4100	Ave		0.3599				7.2		30.0			
Iodomethane	+++++ 0.4683	0.5009 0.4961	0.5005	0.4892	0.5704	Ave		0.5042				6.9		15.0			
Methyl acetate	+++++ 0.0673	0.0853 0.0690	0.0850	0.0799	0.0885	Ave		0.0792				11.3		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 0.5864	0.6377 0.5848	0.6704	0.6581	0.7519	Ave		0.6482				9.6		15.0			
Carbon disulfide	+++++ 1.4343	1.7636 1.4369	1.7592	1.6701	1.8684	Ave		1.6554				11.0		15.0			
t-Butyl alcohol	+++++ 0.0080	0.0086 0.0090	0.0089	0.0083	0.0099	Ave		0.0088				7.5		15.0			
Methylene Chloride	+++++ 0.2866	0.5379 0.2954	0.4459	0.3535	0.3726	Lin2	0.2416	0.3075							0.9900		0.9900
Acrylonitrile	+++++ 0.0349	0.0399 0.0363	0.0404	0.0373	0.0427	Ave		0.0386				7.5		15.0			
Methyl tert-butyl ether	+++++ 0.4462	0.4309 0.4753	0.4540	0.4373	0.5270	Ave		0.4618				7.7		15.0			
trans-1,2-Dichloroethene	+++++ 0.3466	0.3943 0.3677	0.3900	0.3810	0.4342	Ave		0.3857				7.6		15.0			
Hexane	+++++ 3.1397	3.0879 3.3203	3.2431	3.3849	3.9993	Ave		3.3625				9.8		15.0			
Vinyl acetate	+++++ 0.2583	0.2399 0.2693	0.2643	0.2481	0.2995	Ave		0.2632				7.9		15.0			
1,1-Dichloroethane	+++++ 0.5829	0.7165 0.5998	0.6931	0.6650	0.7472	Ave		0.6674			0.1000	9.7		15.0			
2-Butanone (MEK)	+++++ 0.0413	0.0598 0.0431	0.0514	0.0455	0.0521	Ave		0.0489				14.1		15.0			
2-Butanol	+++++ 0.0061	0.0041 0.0068	0.0061	0.0057	0.0071	Lin2	-0.036	0.0067							0.9920		0.9900
cis-1,2-Dichloroethene	+++++ 0.3175	0.3332 0.3366	0.3396	0.3379	0.3910	Ave		0.3426				7.3		15.0			
2,2-Dichloropropane	+++++ 0.4725	0.5525 0.4887	0.5423	0.5220	0.5942	Ave		0.5287				8.4		15.0			
Chlorobromomethane	+++++ 0.0994	0.1187 0.1069	0.1152	0.1085	0.1209	Ave		0.1116				7.3		15.0			
Chloroform	+++++ 0.4920	0.5962 0.5095	0.5866	0.5581	0.6223	Ave		0.5608				9.1		30.0			
Tetrahydrofuran	+++++ 0.0258	0.0238 0.0280	0.0254	0.0236	0.0282	Ave		0.0258				7.7		15.0			
Isobutyl alcohol	+++++ 0.0027	0.0029 0.0029	0.0031	0.0028	0.0031	Ave		0.0029				5.4		15.0			
1,1,1-Trichloroethane	+++++ 0.4910	0.5908 0.5102	0.5630	0.5478	0.6221	Ave		0.5541				8.8		15.0			
Cyclohexane	+++++ 0.6923	0.6519 0.7016	0.6895	0.7532	0.8860	Ave		0.7291				11.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 0.4877	0.5178 0.5051	0.5437	0.5399	0.6231	Ave		0.5362				8.9		15.0			
Carbon tetrachloride	+++++ 0.4308	0.5049 0.4503	0.4846	0.4795	0.5412	Ave		0.4819				8.1		15.0			
1,2-Dichloroethane	0.2459 0.2444	0.3027 0.2564	0.3102	0.2714	0.3080	Ave		0.2770				10.6		15.0			
Benzene	1.3089 1.2832	1.4483 1.3046	1.4485	1.4056	1.6235	Ave		1.4032				8.5		15.0			
Trichloroethene	+++++ 0.3252	0.3490 0.3507	0.3437	0.3417	0.3944	Ave		0.3508				6.6		15.0			
2-Pentanone	+++++ 0.0632	0.0647 0.0665	0.0677	0.1085	0.0861	Lin	0.1758	0.0645							0.9940		0.9900
1,2-Dichloropropane	+++++ 0.2769	0.3281 0.2841	0.3153	0.2999	0.3447	Ave		0.3082				8.5		30.0			
Methylcyclohexane	+++++ 0.5680	0.5814 0.5748	0.5914	0.6232	0.7168	Ave		0.6093				9.2		15.0			
1,4-Dioxane	+++++ 0.0008	0.0006 0.0010	0.0008	0.0009	0.0010	Lin2	-0.006	0.0009							0.9910		0.9900
Dibromomethane	+++++ 0.0932	0.1104 0.1009	0.1152	0.1018	0.1147	Ave		0.1060				8.3		15.0			
Dichlorobromomethane	0.3142 0.3063	0.3508 0.3286	0.3393	0.3279	0.3746	Ave		0.3345				6.9		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0424	0.0281 0.0520	0.0265	0.0289	0.0376	Lin	-0.106	0.0521							0.9930		0.9900
cis-1,3-Dichloropropene	1.4755 1.7712	1.6337 1.9275	1.6693	1.6895	2.0947	Ave		1.7516				11.6		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.0908	0.0795 0.0934	0.0813	0.0847	0.1072	Ave		0.0895				11.4		15.0			
Toluene	+++++ 1.2947	1.2402 1.2688	1.3206	1.3934	1.6339	Ave		1.3586				10.6		30.0			
Ethyl methacrylate	+++++ 0.7823	0.5598 0.8767	0.6095	0.6682	0.8720	Lin1	-0.413	0.8554							0.9960		0.9900
trans-1,3-Dichloropropene	+++++ 0.2694	0.2601 0.2849	0.2761	0.2678	0.3241	Ave		0.2804				8.2		15.0			
1,1,2-Trichloroethane	+++++ 0.1308	0.1518 0.1405	0.1583	0.1400	0.1594	Ave		0.1468				7.8		15.0			
2-Hexanone	+++++ 0.2874	0.2529 0.3043	0.2459	0.2494	0.3337	Ave		0.2789				12.8		15.0			
1,3-Dichloropropane	1.1704 1.2102	1.3527 1.2892	1.4333	1.2926	1.5223	Ave		1.3244				9.3		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 1.3101	1.5183 1.4420	1.4381	1.4174	1.6375	Ave		1.4606				7.5		15.0			
Chlorodibromomethane	0.6982 0.7705	0.8233 0.8627	0.8526	0.7714	0.9249	Ave		0.8148				9.1		15.0			
Ethylene Dibromide	+++++ 0.5656	0.6077 0.6269	0.6313	0.5642	0.6768	Ave		0.6121				7.0		15.0			
1-Chlorohexane	+++++ 2.3517	1.6056 2.6437	1.6762	2.0973	2.7377	Lin1	-0.659	2.5917							0.9950		0.9900
Chlorobenzene	4.1784 3.6387	4.4690 3.8488	4.2081	3.9834	4.5854	Ave		4.1303			0.3000	8.1		15.0			
1,1,1,2-Tetrachloroethane	1.1719 1.1898	1.2561 1.2660	1.2417	1.2048	1.4090	Ave		1.2485				6.3		15.0			
Ethylbenzene	+++++ 2.4224	2.4689 2.5069	2.3908	2.5160	2.9773	Ave		2.5470				8.5		30.0			
m-Xylene & p-Xylene	+++++ 2.9106	2.8121 3.0931	2.7663	3.0138	3.5796	Ave		3.0293				9.8		15.0			
Styrene	+++++ 4.0500	3.3493 4.0216	3.5230	4.0286	4.8976	Ave		3.9783				13.6		15.0			
o-Xylene	+++++ 2.7357	2.5958 2.7061	2.6073	2.8414	3.3737	Ave		2.8100				10.3		15.0			
Bromoform	+++++ 0.3439	0.3198 0.3982	0.3492	0.3294	0.3931	Ave		0.3556			0.1000	9.2		15.0			
Isopropylbenzene	+++++ 4.8466	4.2751 4.6340	4.5092	5.2688	6.1577	Ave		4.9486				13.8		15.0			
Cyclohexanone	+++++ 0.0133	0.0112 0.0151	0.0109	0.0110	0.0155	Lin1	-0.236	0.0147							0.9940		0.9900
1,1,2,2-Tetrachloroethane	0.4613 0.4332	0.5202 0.4797	0.5381	0.4710	0.5365	Ave		0.4914			0.3000	8.3		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1248	0.1209 0.1395	0.1300	0.1251	0.1496	Ave		0.1316				8.2		15.0			
1,2,3-Trichloropropane	+++++ 0.1114	0.1355 0.1234	0.1400	0.1207	0.1365	Ave		0.1279				8.7		15.0			
Bromobenzene	+++++ 0.9000	0.9497 0.9783	0.9756	0.9523	1.0859	Ave		0.9736				6.3		15.0			
N-Propylbenzene	+++++ 1.4214	1.2339 1.5238	1.3415	1.5055	1.7480	Ave		1.4623				12.1		15.0			
1,3,5-Trimethylbenzene	+++++ 4.0005	3.6623 3.9099	3.8356	4.3269	4.9937	Ave		4.1215				11.7		15.0			
2-Chlorotoluene	+++++ 1.1058	1.1242 1.1441	1.1427	1.1990	1.3419	Ave		1.1763				7.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 1.0749	1.0490 1.1909	1.0478	1.1385	1.3024	Ave		1.1339				8.8		15.0			
tert-Butylbenzene	+++++ 4.0895	3.4810 4.2213	3.6991	4.2973	5.0377	Ave		4.1377				13.1		15.0			
1,2,4-Trimethylbenzene	+++++ 3.9682	3.8931 4.0041	3.9723	4.3431	4.9387	Ave		4.1866				9.6		15.0			
sec-Butylbenzene	+++++ 1.1582	0.9849 1.2641	1.0229	1.1984	1.3967	Ave		1.1709				13.1		15.0			
4-Isopropyltoluene	+++++ 4.6171	4.1334 4.5043	4.3464	5.0256	5.7463	Ave		4.7289				12.3		15.0			
1,3-Dichlorobenzene	+++++ 1.9122	2.2058 2.0510	2.1132	2.1030	2.3479	Ave		2.1222				6.9		15.0			
1,4-Dichlorobenzene	2.1186 1.8329	2.1932 1.9698	2.0634	2.0520	2.2627	Ave		2.0704				6.9		15.0			
n-Butylbenzene	+++++ 4.5327	4.2036 4.4342	4.2260	5.0193	5.6810	Ave		4.6828				12.2		15.0			
1,2-Dichlorobenzene	+++++ 1.5327	1.6917 1.6385	1.6245	1.6325	1.8571	Ave		1.6628				6.5		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0567	0.0594 0.0653	0.0543	0.0501	0.0677	Ave		0.0589				11.3		15.0			
1,2,4-Trichlorobenzene	+++++ 1.0505	0.8954 1.0747	0.8618	0.9756	1.2559	Ave		1.0190				14.0		15.0			
Hexachlorobutadiene	0.8346 0.8298	0.9160 +++++	0.7892	0.8940	0.9938	Ave		0.8762				8.4		15.0			
Naphthalene	+++++ 1.2373	0.7779 1.3070	0.8297	0.9750	1.3573	Lin1	-0.722	1.3033							0.9970		0.9900
1,2,3-Trichlorobenzene	+++++ 0.7707	0.7491 0.7872	0.6842	0.7492	0.8977	Ave		0.7730				9.1		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/10	G2_3363.D
Level 2	IC 280-320302/11	G2_3364.D
Level 3	IC 280-320302/12	G2_3365.D
Level 4	IC 280-320302/13	G2_3366.D
Level 5	IC 280-320302/14	G2_3367.D
Level 6	IC 280-320302/15	G2_3368.D
Level 7	IC 280-320302/16	G2_3369.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	+++++ 1779575	52928 3754063	106168	292902	605199	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	+++++ 1928629	68331 3946169	118561	316002	664427	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	+++++ 1907373	67317 3878062	116650	315852	650962	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Lin	+++++ 1190473	43485 2244069	74790	203594	408083	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Lin	+++++ 1150465	43256 2265276	74157	209835	398472	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	+++++ 3244723	117079 +++++	188967	524785	1074185	+++++ 30.0	1.00 +++++	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 2500540	88631 5412577	148893	404132	825006	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	+++++ 759091	19771 1676633	39251	106863	231425	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 664687	19220 1462792	35748	94114	197986	+++++ 300	10.00 600	20.0	50.0	100.0
Acetone	FB	Lin1	+++++ 464357	19690 989399	31457	82414	157489	+++++ 120	4.00 240	8.00	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1252846	41435 2734741	74133	201282	414930	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethene	FB	Ave	+++++ 1623004	46660 3535584	86070	245910	512124	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Iodomethane	FB	Ave	+++++ 2276112	65962 4989443	121610	338492	712550	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	+++++ 1636782	56164 3470196	103319	276316	552935	+++++ 150	5.00 300	10.0	25.0	50.0
Allyl chloride	FB	Ave	+++++ 2850325	83969 5881519	162908	455397	939242	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 6971609	232229 14451939	427470	1155698	2333901	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
t-Butyl alcohol	FB	Ave	+++++ 390275	11367 900597	21746	57258	123623	+++++ 300	10.0 600	20.0	50.0	100
Methylene Chloride	FB	Lin2	+++++ 1393234	70826 2970882	108348	244604	465407	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	+++++ 1695174	52503 3655586	98168	258338	533423	+++++ 300	10.0 600	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	+++++ 2168717	56738 4780512	110324	302602	658326	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	+++++ 1684814	51919 3698424	94769	263681	542412	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	+++++ 3131114	80033 6739530	159825	480397	1014930	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	+++++ 2511357	63184 5416264	128448	343363	748297	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	+++++ 2833342	94347 6033247	168426	460165	933320	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 803143	31474 1734210	49922	125844	260350	+++++ 120	4.00 240	8.00	20.0	40.0
2-Butanol	FB	Lin2	+++++ 445080	8100 1025184	22150	59228	132274	+++++ 450	15.0 900	30.0	75.0	150
cis-1,2-Dichloroethene	FB	Ave	+++++ 1543418	43879 3385643	82511	233808	488466	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	+++++ 2296519	72753 4915682	131775	361182	742293	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobromomethane	FB	Ave	+++++ 483297	15636 1075092	27988	75102	150973	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroform	FB	Ave	+++++ 2391493	78503 5124646	142540	386230	777362	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 251132	6264 563318	12347	32618	70331	+++++ 60.0	2.00 120	4.00	10.0	20.0
Isobutyl alcohol	FB	Ave	+++++ 325822	9539 722239	18555	48319	96678	+++++ 750	25.0 1500	50.0	125	250
1,1,1-Trichloroethane	FB	Ave	+++++ 2386391	77800 5131334	136804	379081	777071	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	+++++ 3365136	85838 7057141	167542	521238	1106774	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	+++++ 2370615	68179 5080109	132124	373573	778349	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	+++++ 2093900	66488 4528999	117752	331812	676026	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	12056 1187828	39857 2578731	75371	187787	384766	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	64167 6237157	190717 13121738	351967	972649	2027986	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	+++++ 1580874	45961 3527157	83505	236461	492675	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Lin	+++++ 614114	17034 1337870	32889	150214	215029	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	+++++ 1345859	43205 2857275	76626	207499	430595	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methylcyclohexane	FB	Ave	+++++ 2760645	76560 5781181	143700	431228	895384	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin2	+++++ 76960	1611 193813	3788	11812	24650	+++++ 600	20.0 1200	40.0	100	200
Dibromomethane	FB	Ave	+++++ 452971	14542 1014698	27986	70472	143286	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorobromomethane	FB	Ave	15403 1488979	46193 3304675	82441	226869	467964	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Lin	+++++ 206246	3695 522519	6450	19967	47013	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	13622 1766404	42342 3912514	82265	239783	531580	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	+++++ 1764505	41864 3758178	78975	234548	535596	+++++ 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	+++++ 6292940	163309 12761641	320889	964184	2040969	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Lin1	+++++ 780160	14509 1779494	30039	94833	221292	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	+++++ 1309323	34250 2865504	67092	185283	404867	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 635597	19994 1413044	38469	96902	199143	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	+++++ 1146559	26214 2470484	48471	141601	338734	+++++ 120	4.00 240	8.00	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	10805 1206892	35061 2616740	70636	183453	386333	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	+++++ 1306535	39352 2927045	70869	201167	415552	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorodibromomethane	CBZ	Ave	6446 768438	21339 1751046	42017	109486	234723	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylene Dibromide	CBZ	Ave	+++++ 564038	15750 1272532	31111	80077	171767	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	Lin1	+++++ 1172655	20807 2683081	41302	148826	347387	+++++ 15.0	0.500 30.0	1.00	2.50	5.00
Chlorobenzene	CBZ	Ave	38575 3628786	115829 7812338	207380	565338	1163679	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	10819 1186530	32556 2569689	61194	170991	357568	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	+++++ 2415766	63991 5088473	117820	357079	755587	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	+++++ 2902670	72885 6278339	136327	427728	908437	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	+++++ 4039014	86809 8162971	173617	571753	1242905	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	+++++ 2728264	67280 5492779	128492	403263	856177	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	+++++ 342929	8289 808361	17209	46746	99771	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	+++++ 7418138	166666 14197299	325453	1097117	2363043	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Lin1	+++++ 532452	11590 1223578	21550	62613	157204	+++++ 1200	40.0 2400	80.0	200	400
1,1,2,2-Tetrachloroethane	DCB	Ave	6095 663063	20280 1469722	38836	98084	205898	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 191021	4715 427263	9382	26049	57395	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 170529	5283 377941	10102	25141	52363	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	+++++ 1377601	37023 2997359	70416	198298	416701	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	+++++ 2175577	48103 4668495	96821	313486	670803	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 6123051	142773 11978777	276832	900973	1916337	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	+++++ 1692514	43827 3505310	82478	249662	514973	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 1645179	40896 3648733	75622	237070	499791	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	+++++ 6259387	135707 12932862	266984	894809	1933242	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	+++++ 6073732	151772 12267542	286702	904356	1895236	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	+++++ 1772738	38396 3872887	73829	249532	535994	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 7066922	161142 13799883	313699	1046474	2205137	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	+++++ 2926851	85993 6283851	152522	437908	901012	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	27991 2805461	85502 6035069	148929	427289	868315	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	+++++ 6937702	163878 13585221	305009	1045164	2180102	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	+++++ 2345880	65951 5020008	117250	339934	712672	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 86860	2317 200041	3921	10427	25971	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 1607958	34907 3292748	62199	203156	481956	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	11027 1270034	35709 +++++	56960	186155	381365	0.300 30.0	1.00 +++++	2.00	5.00	10.0
Naphthalene	DCB	Lin1	+++++ 1893854	30326 4004235	59881	203017	520870	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 1179694	29202 2411625	49380	155996	344490	+++++ 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: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3363.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Apr-2016 10:14:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:00 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 10:47:10

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	5.473	5.473	0.000	0	209983	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2042573	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.686	0.007	88	384668	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	550498	12.5	12.5	
13 Dichlorodifluoromethane	85		3.811				ND	ND	
14 Chloromethane	50		4.007				ND	ND	
16 Vinyl chloride	62		4.160				ND	ND	
19 Bromomethane	94		4.510				ND	ND	
20 Chloroethane	64		4.579				ND	ND	
21 Dichlorofluoromethane	67		4.705				ND	ND	
22 Trichlorofluoromethane	101		4.789				ND	ND	
25 Ethyl ether	59		4.971				ND	ND	
28 Acrolein	56		5.096				ND	ND	
29 Acetone	43		5.194				ND	ND	
31 1,1,2-Trichloro-1,2,2-trif	151		5.222				ND	ND	
32 1,1-Dichloroethene	96		5.236				ND	ND	
34 Iodomethane	142		5.403				ND	ND	
35 Methyl acetate	43		5.431				ND	ND	
36 3-Chloro-1-propene	41		5.487				ND	ND	
37 Carbon disulfide	76		5.501				ND	ND	
38 2-Methyl-2-propanol	59		5.529				ND	ND	
39 Methylene Chloride	84		5.571				ND	ND	
40 Acrylonitrile	53		5.711				ND	ND	
41 Methyl tert-butyl ether	73		5.767				ND	ND	
42 trans-1,2-Dichloroethene	96		5.795				ND	ND	
43 Hexane	57		5.976				ND	ND	
44 Vinyl acetate	43		6.054				ND	ND	
46 1,1-Dichloroethane	63		6.118				ND	ND	
50 2-Butanone (MEK)	43		6.476				ND	ND	
52 sec-Butyl Alcohol	45		6.526				ND	ND	
53 cis-1,2-Dichloroethene	96		6.540				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77		6.576				ND	ND	
56 Chlorobromomethane	128		6.733				ND	ND	
57 Chloroform	83		6.747				ND	ND	
58 Tetrahydrofuran	42		6.769				ND	ND	
59 Isobutyl alcohol	41		6.933				ND	ND	
60 1,1,1-Trichloroethane	97		6.969				ND	ND	
61 Cyclohexane	56		7.048				ND	ND	
62 1,1-Dichloropropene	75		7.069				ND	ND	
63 Carbon tetrachloride	117		7.112				ND	ND	
64 1,2-Dichloroethane	62	7.219	7.212	0.007	57	12056	0.3000	0.2664	
66 Benzene	78	7.248	7.248	0.000	97	64167	0.3000	0.2798	
67 n-Heptane	43		7.341				ND	ND	
69 Trichloroethene	95		7.705				ND	ND	
70 2-Pentanone	43		7.734				ND	ND	
72 1,2-Dichloropropane	63		7.884				ND	ND	
73 Methylcyclohexane	55		7.913				ND	ND	
74 1,4-Dioxane	88		7.941				ND	ND	
75 Dibromomethane	93		7.991				ND	ND	
76 Dichlorobromomethane	83	8.063	8.063	0.000	95	15403	0.3000	0.2818	
78 2-Chloroethyl vinyl ether	63		8.206				ND	ND	
79 cis-1,3-Dichloropropene	75	8.392	8.385	0.007	93	13622	0.3000	0.2527	
80 4-Methyl-2-pentanone (MIBK	43		8.442				ND	ND	
81 Toluene	91		8.671				ND	ND	
82 Ethyl methacrylate	69		8.757				ND	ND	
83 trans-1,3-Dichloropropene	75		8.764				ND	ND	
84 1,1,2-Trichloroethane	97		8.921				ND	ND	
85 2-Hexanone	43		9.035				ND	ND	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	96	10805	0.3000	0.2651	
87 Tetrachloroethene	164		9.093				ND	ND	
88 Chlorodibromomethane	129	9.250	9.250	0.000	86	6446	0.3000	0.2571	
90 Ethylene Dibromide	107		9.371				ND	ND	
91 1-Chlorohexane	91		9.607				ND	ND	
92 Chlorobenzene	112	9.715	9.715	0.000	96	38575	0.3000	0.3035	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	85	10819	0.3000	0.2816	
94 Ethylbenzene	106		9.750				ND	ND	
95 m-Xylene & p-Xylene	106		9.829				ND	ND	
96 Styrene	104		10.137				ND	ND	
97 o-Xylene	106		10.144				ND	ND	
98 Bromoform	173		10.330				ND	ND	
99 Isopropylbenzene	105		10.401				ND	ND	
101 Cyclohexanone	55		10.508				ND	ND	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.587	0.007	90	6095	0.3000	0.2816	
103 trans-1,4-Dichloro-2-buten	53		10.623				ND	ND	
104 1,2,3-Trichloropropane	110		10.659				ND	ND	
105 Bromobenzene	156		10.709				ND	ND	
106 N-Propylbenzene	120		10.716				ND	ND	
107 1,3,5-Trimethylbenzene	105		10.823				ND	ND	
108 2-Chlorotoluene	126		10.830				ND	ND	
109 4-Chlorotoluene	126		10.902				ND	ND	
110 tert-Butylbenzene	119		11.116				ND	ND	
111 1,2,4-Trimethylbenzene	105		11.145				ND	ND	
112 sec-Butylbenzene	134		11.288				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119		11.381				ND	ND	
114 1,3-Dichlorobenzene	146		11.438				ND	ND	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	95	27991	0.3000	0.3070	
117 n-Butylbenzene	91		11.738				ND	ND	
118 1,2-Dichlorobenzene	146		11.853				ND	ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568				ND	ND	
121 1,2,4-Trichlorobenzene	180		13.490				ND	ND	
122 Hexachlorobutadiene	225	13.654	13.647	0.007	94	11027	0.3000	0.2866	
123 Naphthalene	128		13.840				ND	ND	
124 1,2,3-Trichlorobenzene	180		14.148				ND	ND	
S 149 1,2-Dichloroethene, Total	96				0		0.6000	0	
S 150 Trihalomethanes, Total	1				0		1.20	0.5389	
S 151 Xylenes, Total (URS)	1				0		0.6000	0	
S 152 Total BTEX	1				0			0.2798	
S 153 1,3-Dichloropropene, Total	1				0		0.6000	0.2527	
S 154 1,2-Dichloroethene, Total	1				0		0.6000	0	
S 155 Xylenes, Total	106				0		0.6000	0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-Main A_00026	Amount Added:	0.15	Units: uL
MV-Gas/Ket A_00044	Amount Added:	0.15	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.15	Units: uL
MV-567649-D_00001	Amount Added:	1.00	Units: uL

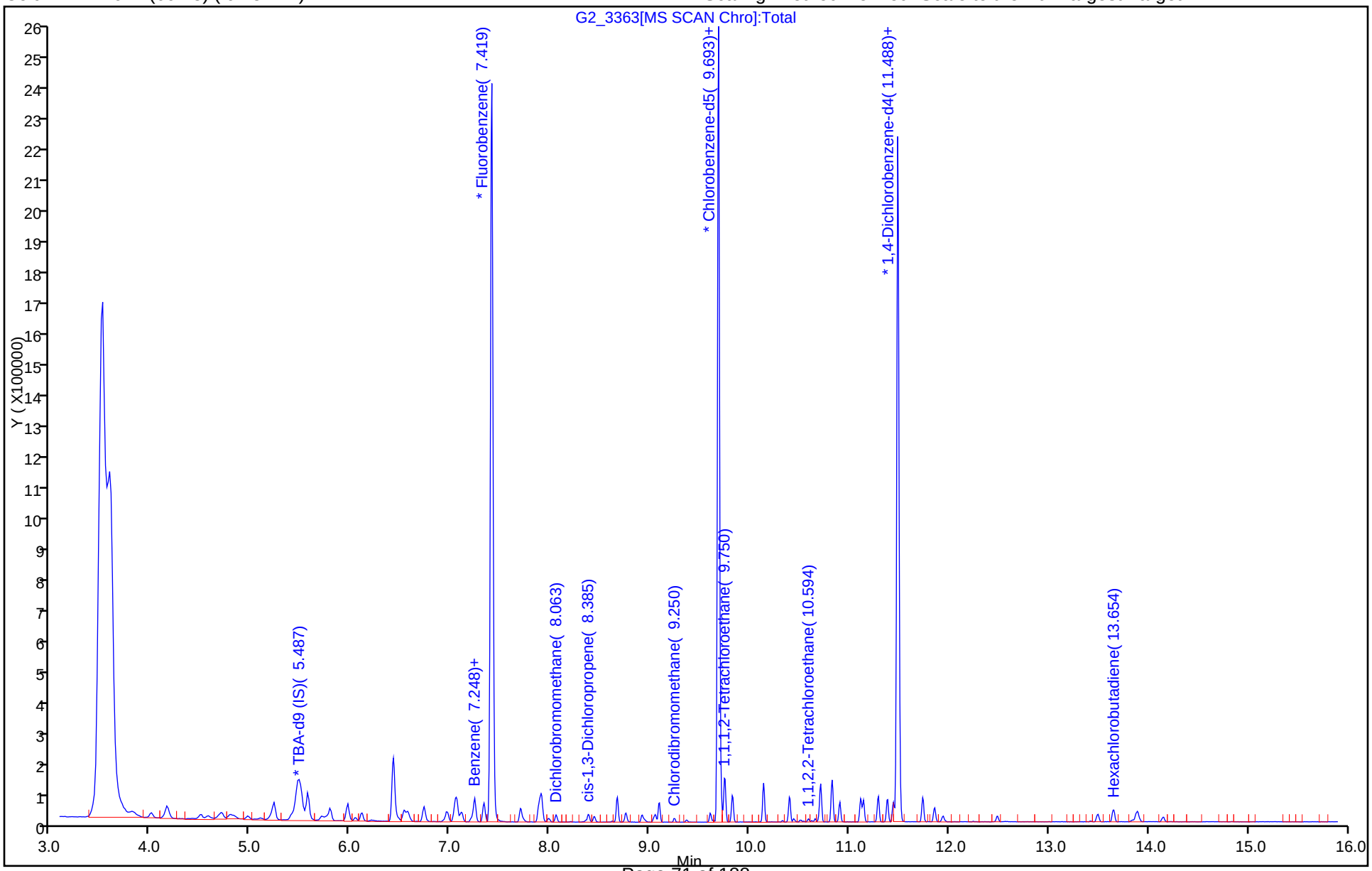
Report Date: 13-Apr-2016 05:42:00 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3363.D

Injection Date:	12-Apr-2016 10:14:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2016 10:33:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:04 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:04:07

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	5.473	5.473	0.000	0	198373	250.0	250.0	
* 2 Fluorobenzene	96	7.412	7.419	-0.007	98	1646000	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	323980	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.481	11.488	-0.007	97	487312	12.5	12.5	
13 Dichlorodifluoromethane	85	3.797	3.811	-0.014	98	52928	1.00	0.9701	
14 Chloromethane	50	4.007	4.007	0.000	98	68331	1.00	1.12	
16 Vinyl chloride	62	4.146	4.160	-0.014	98	67317	1.00	1.12	
19 Bromomethane	94	4.496	4.510	-0.014	90	43485	1.00	-0.5511	
20 Chloroethane	64	4.565	4.579	-0.014	99	43256	1.00	-0.3606	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	117079	1.00	1.15	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	88631	1.00	1.13	
25 Ethyl ether	59	4.970	4.971	-0.001	91	19771	1.00	0.9247	
28 Acrolein	56	5.096	5.096	0.000	98	19220	10.0	10.1	
29 Acetone	43	5.194	5.194	0.000	100	19690	4.00	3.26	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	41435	1.00	1.07	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	95	46660	1.00	0.9846	
34 Iodomethane	142	5.403	5.403	0.000	99	65962	1.00	0.99	
35 Methyl acetate	43	5.431	5.431	0.000	96	56164	5.00	5.39	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	83	83969	1.00	0.9837	
37 Carbon disulfide	76	5.501	5.501	0.000	99	232229	1.00	1.07	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	28	11367	10.0	9.82	
39 Methylene Chloride	84	5.571	5.571	0.000	96	70826	1.00	0.9636	
40 Acrylonitrile	53	5.711	5.711	0.000	99	52503	10.0	10.3	
41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	97	56738	1.00	0.9331	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	96	51919	1.00	1.02	
43 Hexane	57	5.976	5.976	0.000	94	80033	1.00	0.9183	
44 Vinyl acetate	43	6.046	6.054	-0.008	97	63184	2.00	1.82	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	94347	1.00	1.07	
50 2-Butanone (MEK)	43	6.475	6.476	-0.001	99	31474	4.00	4.89	
52 sec-Butyl Alcohol	45	6.518	6.526	-0.008	94	8100	15.0	14.5	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	43879	1.00	0.9725	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	72753	1.00	1.05	
56 Chlorobromomethane	128	6.733	6.733	0.000	94	15636	1.00	1.06	
57 Chloroform	83	6.740	6.747	-0.007	94	78503	1.00	1.06	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	6264	2.00	1.84	
59 Isobutyl alcohol	41	6.933	6.933	0.000	82	9539	25.0	25.0	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	77800	1.00	1.07	
61 Cyclohexane	56	7.047	7.048	-0.001	94	85838	1.00	0.8941	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	93	68179	1.00	0.9656	
63 Carbon tetrachloride	117	7.112	7.112	0.000	95	66488	1.00	1.05	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	88	39857	1.00	1.09	a
66 Benzene	78	7.248	7.248	0.000	96	190717	1.00	1.03	
67 n-Heptane	43	7.341	7.341	0.000	89	76237	1.00	0.8746	
69 Trichloroethene	95	7.705	7.705	0.000	97	45961	1.00	1.00	
70 2-Pentanone	43	7.734	7.734	0.000	98	17034	2.00	-0.7210	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	91	43205	1.00	1.06	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	76560	1.00	0.9543	
74 1,4-Dioxane	88	7.934	7.941	-0.007	75	1611	20.0	19.8	
75 Dibromomethane	93	7.984	7.991	-0.007	97	14542	1.00	1.04	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	46193	1.00	1.05	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	84	3695	1.00	2.57	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	42342	1.00	0.9327	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	41864	4.00	3.55	
81 Toluene	91	8.671	8.671	0.000	98	163309	1.00	0.9129	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	89	14509	1.00	1.14	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	34250	1.00	0.9276	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	19994	1.00	1.03	
85 2-Hexanone	43	9.035	9.035	0.000	96	26214	4.00	3.63	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	95	35061	1.00	1.02	
87 Tetrachloroethene	164	9.092	9.093	-0.001	97	39352	1.00	1.04	
88 Chlorodibromomethane	129	9.243	9.250	-0.007	89	21339	1.00	1.01	
90 Ethylene Dibromide	107	9.371	9.371	0.000	94	15750	1.00	0.99	
91 1-Chlorohexane	91	9.607	9.607	0.000	82	20807	0.5000	0.5640	
92 Chlorobenzene	112	9.707	9.715	-0.008	95	115829	1.00	1.08	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	94	32556	1.00	1.01	
94 Ethylbenzene	106	9.750	9.750	0.000	99	63991	1.00	0.9693	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	72885	1.00	0.9283	
96 Styrene	104	10.136	10.137	-0.001	83	86809	1.00	0.8419	
97 o-Xylene	106	10.144	10.144	0.000	89	67280	1.00	0.9238	
98 Bromoform	173	10.322	10.330	-0.008	92	8289	1.00	0.8993	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	166666	1.00	0.8639	
101 Cyclohexanone	55	10.508	10.508	0.000	93	11590	40.0	46.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	20280	1.00	1.06	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	86	4715	1.00	0.9187	
104 1,2,3-Trichloropropane	110	10.651	10.659	-0.007	86	5283	1.00	1.06	
105 Bromobenzene	156	10.708	10.709	-0.001	96	37023	1.00	0.9754	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	48103	1.00	0.8438	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	142773	1.00	0.8886	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	43827	1.00	0.9557	
109 4-Chlorotoluene	126	10.901	10.902	-0.001	99	40896	1.00	0.9251	
110 tert-Butylbenzene	119	11.116	11.116	0.000	95	135707	1.00	0.8413	
111 1,2,4-Trimethylbenzene	105	11.137	11.145	-0.008	96	151772	1.00	0.9299	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	38396	1.00	0.8412	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	-0.001	97	161142	1.00	0.8741	
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	85993	1.00	1.04	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	85502	1.00	1.06	
117 n-Butylbenzene	91	11.731	11.738	-0.007	99	163878	1.00	0.8977	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	95	65951	1.00	1.02	
119 1,2-Dibromo-3-Chloropropan	157	12.560	12.568	-0.008	63	2317	1.00	1.01	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	34907	1.00	0.8787	
122 Hexachlorobutadiene	225	13.640	13.647	-0.007	97	35709	1.00	1.05	
123 Naphthalene	128	13.833	13.840	-0.007	96	30326	1.00	1.15	
124 1,2,3-Trichlorobenzene	180	14.141	14.148	-0.008	95	29202	1.00	0.9690	
S 149 1,2-Dichloroethene, Total	96				0		2.00	1.99	
S 150 Trihalomethanes, Total	1				0		4.00	4.02	
S 151 Xylenes, Total (URS)	1				0		2.00	1.85	
S 152 Total BTEX	1				0			4.77	
S 153 1,3-Dichloropropene, Total	1				0		2.00	1.86	
S 154 1,2-Dichloroethene, Total	1				0		2.00	1.99	
S 155 Xylenes, Total	106				0		2.00	1.85	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.50	Units: uL
MV-Main A_00026	Amount Added:	0.50	Units: uL
MV-Gas/Ket A_00044	Amount Added:	0.50	Units: uL

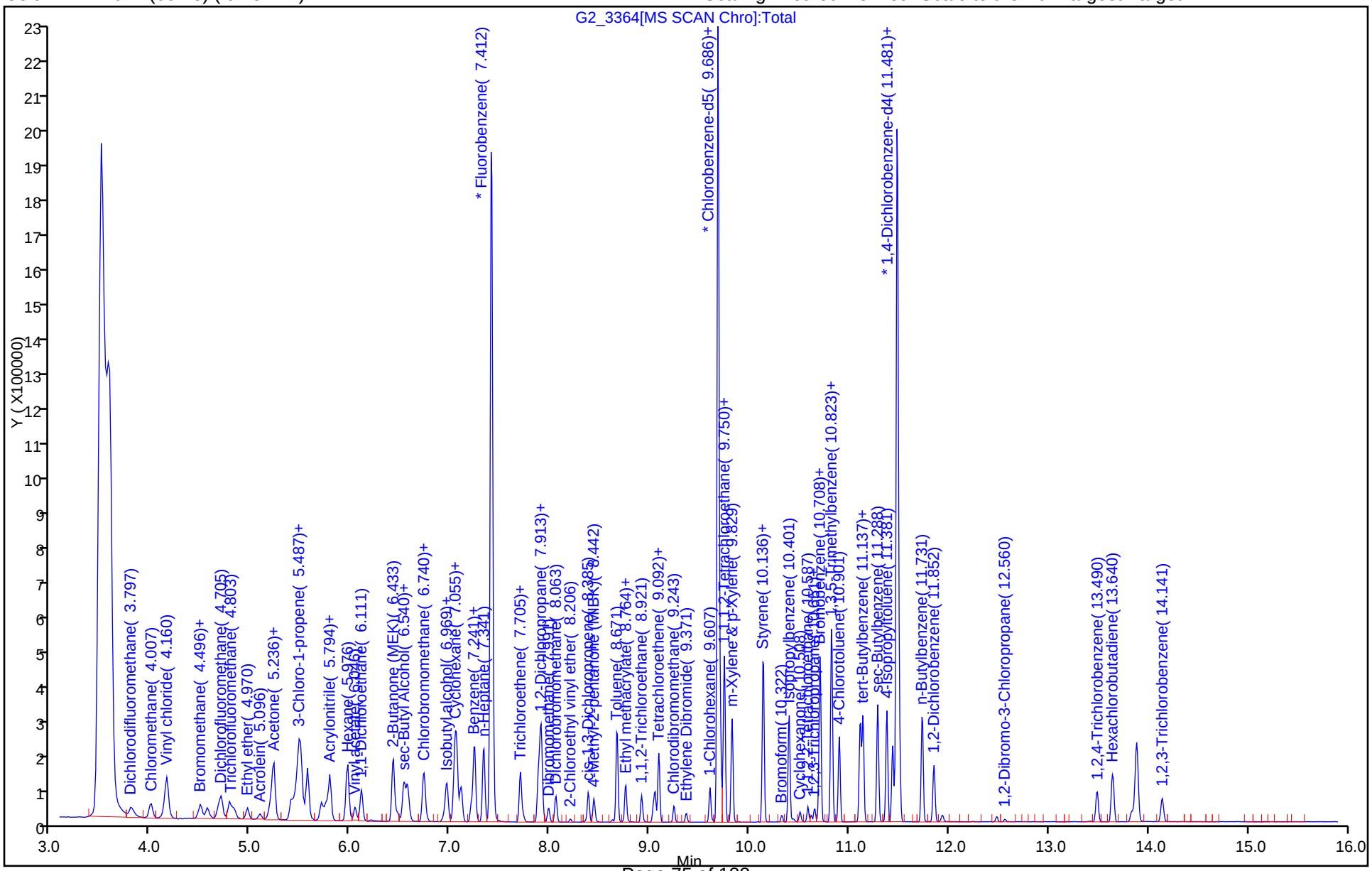
Report Date: 13-Apr-2016 05:42:04 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D

Injection Date:	12-Apr-2016 10:33:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

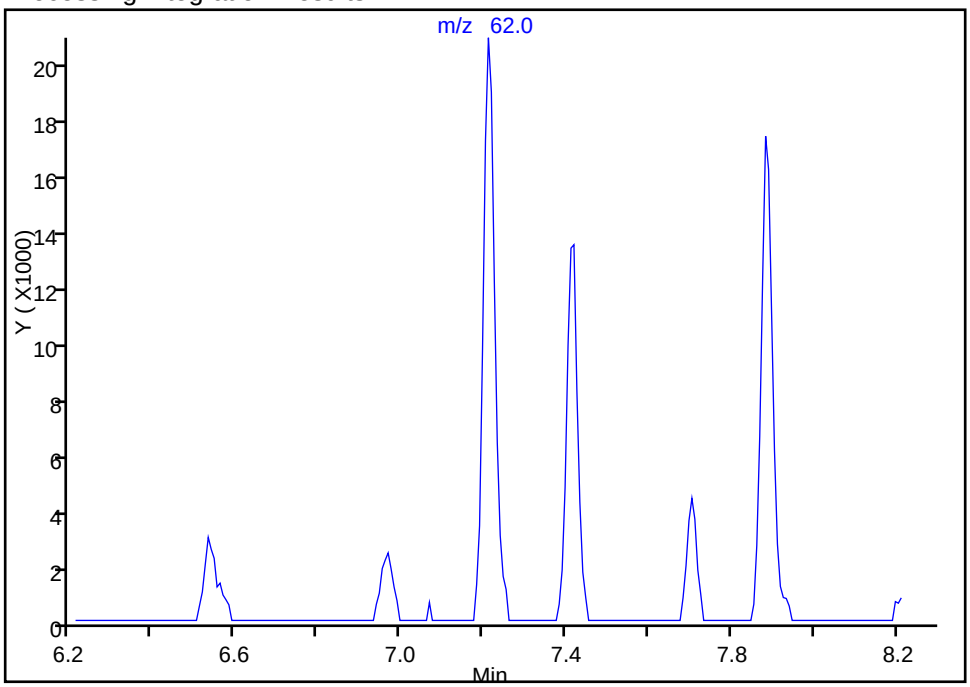
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D				
Injection Date:	12-Apr-2016 10:33:30	Instrument ID:	VMS_G2		
Lims ID:	ic				
Client ID:					
Operator ID:	ilczyszynd	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

64 1,2-Dichloroethane, CAS: 107-06-2

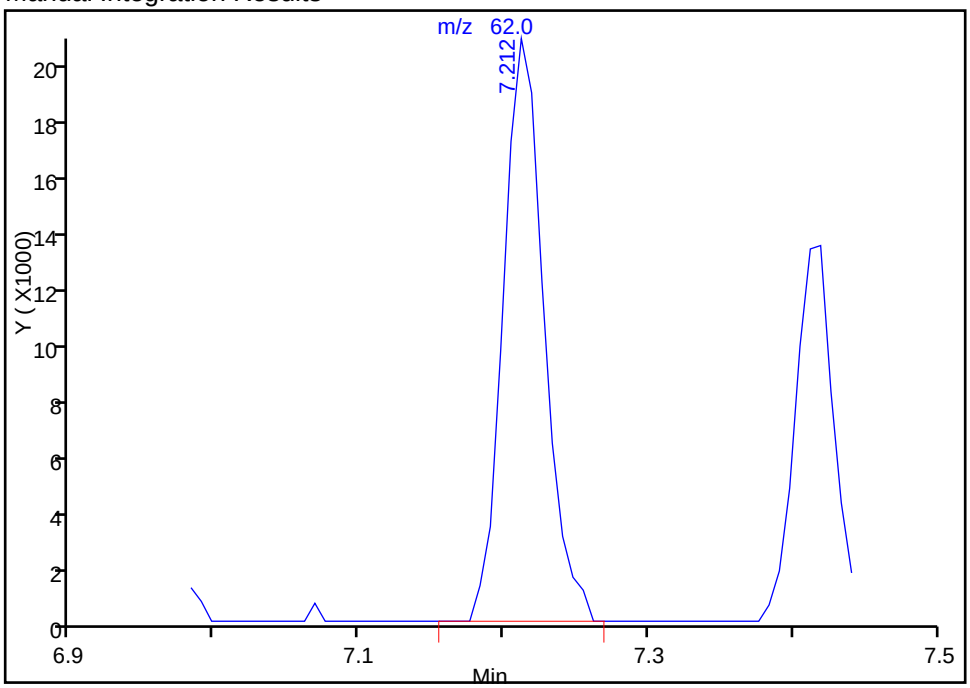
Not Detected
Expected RT: 7.21

Processing Integration Results



Manual Integration Results

RT: 7.21
Area: 39857
Amount: 1.092737
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:04:07
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2016 10:52:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:05 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:04:31

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	5.473	5.473	0.000	0	174222	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1518684	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	308006	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	451094	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	106168	2.00	2.11	
14 Chloromethane	50	4.007	4.007	0.000	99	118561	2.00	2.10	
16 Vinyl chloride	62	4.160	4.160	0.000	98	116650	2.00	2.10	
19 Bromomethane	94	4.510	4.510	0.000	91	74790	2.00	0.7486	
20 Chloroethane	64	4.579	4.579	0.000	100	74157	2.00	0.9179	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	188967	2.00	2.02	
22 Trichlorofluoromethane	101	4.803	4.789	0.014	98	148893	2.00	2.05	
25 Ethyl ether	59	4.971	4.971	0.000	92	39251	2.00	1.99	
28 Acrolein	56	5.096	5.096	0.000	99	35748	20.0	20.3	
29 Acetone	43	5.194	5.194	0.000	100	31457	8.00	7.71	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	74133	2.00	2.07	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	86070	2.00	1.97	
34 Iodomethane	142	5.403	5.403	0.000	98	121610	2.00	1.99	
35 Methyl acetate	43	5.431	5.431	0.000	96	103319	10.0	10.7	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	81	162908	2.00	2.07	
37 Carbon disulfide	76	5.515	5.501	0.014	99	427470	2.00	2.13	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	28	21746	20.0	20.4	
39 Methylene Chloride	84	5.571	5.571	0.000	95	108348	2.00	2.11	
40 Acrylonitrile	53	5.711	5.711	0.000	99	98168	20.0	20.9	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	110324	2.00	1.97	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	97	94769	2.00	2.02	
43 Hexane	57	5.976	5.976	0.000	94	159825	2.00	1.93	
44 Vinyl acetate	43	6.054	6.054	0.000	97	128448	4.00	4.02	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	168426	2.00	2.08	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	99	49922	8.00	8.41	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	92	22150	30.0	32.5	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	82511	2.00	1.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	131775	2.00	2.05	
56 Chlorobromomethane	128	6.733	6.733	0.000	95	27988	2.00	2.06	
57 Chloroform	83	6.747	6.747	0.000	94	142540	2.00	2.09	
58 Tetrahydrofuran	42	6.769	6.769	0.000	84	12347	4.00	3.94	
59 Isobutyl alcohol	41	6.940	6.933	0.007	88	18555	50.0	52.7	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	97	136804	2.00	2.03	
61 Cyclohexane	56	7.055	7.048	0.007	93	167542	2.00	1.89	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	132124	2.00	2.03	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	117752	2.00	2.01	
64 1,2-Dichloroethane	62	7.219	7.212	0.007	94	75371	2.00	2.24	a
66 Benzene	78	7.248	7.248	0.000	96	351967	2.00	2.06	
67 n-Heptane	43	7.341	7.341	0.000	90	153548	2.00	1.91	
69 Trichloroethene	95	7.705	7.705	0.000	97	83505	2.00	1.96	
70 2-Pentanone	43	7.734	7.734	0.000	98	32889	4.00	1.47	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	92	76626	2.00	2.05	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	143700	2.00	1.94	
74 1,4-Dioxane	88	7.934	7.941	-0.007	87	3788	40.0	40.3	
75 Dibromomethane	93	7.991	7.991	0.000	96	27986	2.00	2.17	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	82441	2.00	2.03	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	90	6450	2.00	3.05	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	82265	2.00	1.91	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	78975	8.00	7.27	
81 Toluene	91	8.678	8.671	0.007	98	320889	2.00	1.94	
82 Ethyl methacrylate	69	8.757	8.757	0.000	94	30039	2.00	1.91	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	67092	2.00	1.97	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	38469	2.00	2.16	
85 2-Hexanone	43	9.043	9.035	0.008	97	48471	8.00	7.05	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	98	70636	2.00	2.16	
87 Tetrachloroethene	164	9.093	9.093	0.000	96	70869	2.00	1.97	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	42017	2.00	2.09	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	31111	2.00	2.06	
91 1-Chlorohexane	91	9.607	9.607	0.000	85	41302	1.00	0.9010	
92 Chlorobenzene	112	9.715	9.715	0.000	96	207380	2.00	2.04	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	92	61194	2.00	1.99	
94 Ethylbenzene	106	9.750	9.750	0.000	99	117820	2.00	1.88	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	98	136327	2.00	1.83	
96 Styrene	104	10.144	10.137	0.007	84	173617	2.00	1.77	
97 o-Xylene	106	10.144	10.144	0.000	89	128492	2.00	1.86	
98 Bromoform	173	10.330	10.330	0.000	94	17209	2.00	1.96	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	325453	2.00	1.82	
101 Cyclohexanone	55	10.508	10.508	0.000	94	21550	80.0	75.7	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	95	38836	2.00	2.19	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	84	9382	2.00	1.97	
104 1,2,3-Trichloropropane	110	10.659	10.659	0.000	87	10102	2.00	2.19	
105 Bromobenzene	156	10.709	10.709	0.000	97	70416	2.00	2.00	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	96821	2.00	1.83	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	276832	2.00	1.86	
108 2-Chlorotoluene	126	10.830	10.830	0.000	94	82478	2.00	1.94	
109 4-Chlorotoluene	126	10.902	10.902	0.000	99	75622	2.00	1.85	
110 tert-Butylbenzene	119	11.116	11.116	0.000	94	266984	2.00	1.79	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	286702	2.00	1.90	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	73829	2.00	1.75	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	313699	2.00	1.84	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	97	152522	2.00	1.99	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	148929	2.00	1.99	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	305009	2.00	1.80	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	96	117250	2.00	1.95	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	71	3921	2.00	1.84	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	62199	2.00	1.69	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	89	56960	2.00	1.81	
123 Naphthalene	128	13.840	13.840	0.000	97	59881	2.00	1.83	
124 1,2,3-Trichlorobenzene	180	14.141	14.148	-0.007	94	49380	2.00	1.77	
S 149 1,2-Dichloroethene, Total	96				0		4.00	4.00	
S 150 Trihalomethanes, Total	1				0		8.00	8.18	
S 151 Xylenes, Total (URS)	1				0		4.00	3.68	
S 152 Total BTEX	1				0			9.57	
S 153 1,3-Dichloropropene, Total	1				0		4.00	3.88	
S 154 1,2-Dichloroethene, Total	1				0		4.00	4.00	
S 155 Xylenes, Total	106				0		4.00	3.68	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	1.00	Units: uL

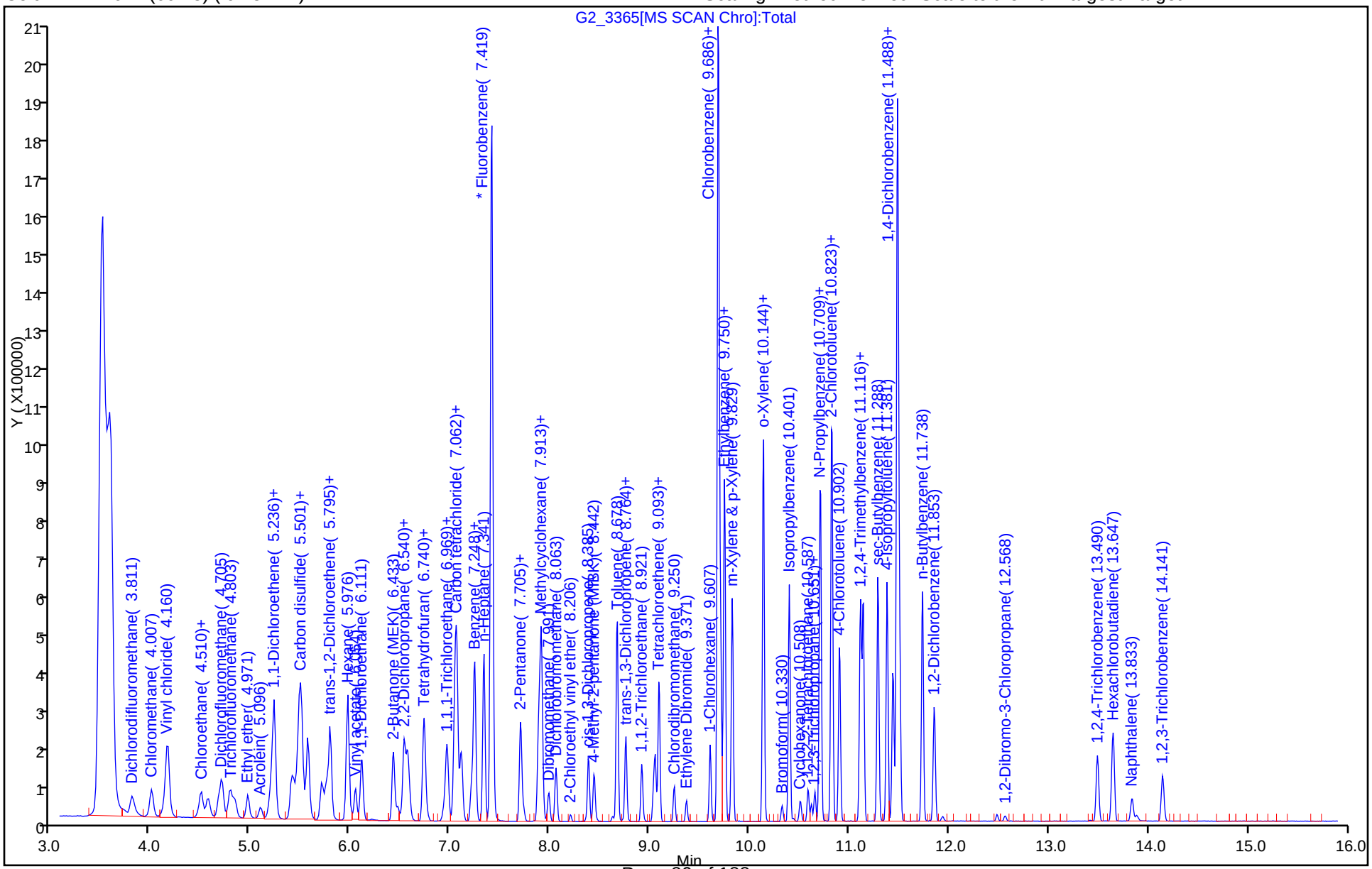
Report Date: 13-Apr-2016 05:42:05 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D

Injection Date:	12-Apr-2016 10:52:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

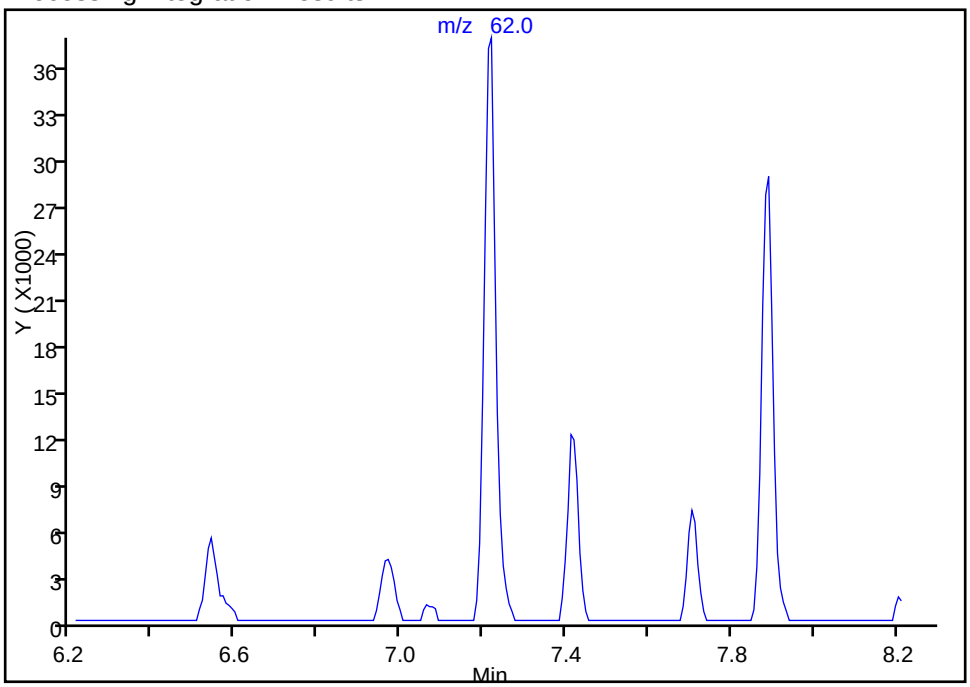
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D
Injection Date: 12-Apr-2016 10:52:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: ilczyszynd ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

64 1,2-Dichloroethane, CAS: 107-06-2

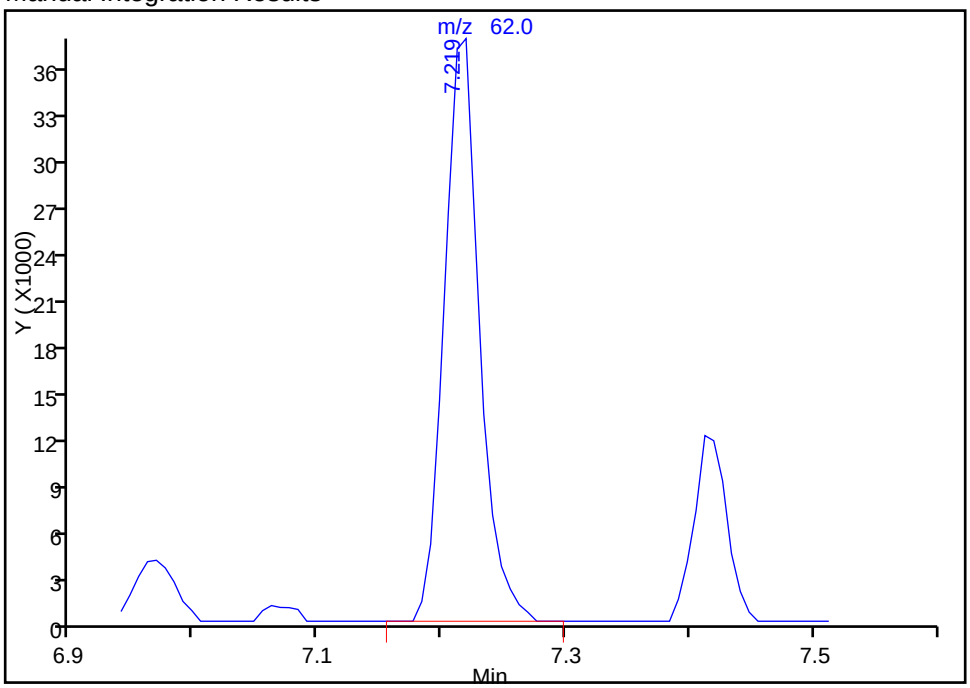
Not Detected
Expected RT: 7.21

Processing Integration Results



Manual Integration Results

RT: 7.22
Area: 75371
Amount: 2.239638
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:06:50
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3366.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2016 11:12:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:06 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:07:27

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	5.473	5.473	0.000	0	192265	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1729964	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	354809	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	520568	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	292902	5.00	5.11	
14 Chloromethane	50	4.021	4.007	0.014	99	316002	5.00	4.92	
16 Vinyl chloride	62	4.160	4.160	0.000	98	315852	5.00	4.99	
19 Bromomethane	94	4.510	4.510	0.000	90	203594	5.00	4.65	
20 Chloroethane	64	4.579	4.579	0.000	100	209835	5.00	5.03	
21 Dichlorofluoromethane	67	4.719	4.705	0.014	97	524785	5.00	4.91	
22 Trichlorofluoromethane	101	4.803	4.789	0.014	98	404132	5.00	4.89	
25 Ethyl ether	59	4.970	4.971	-0.001	91	106863	5.00	4.76	
28 Acrolein	56	5.110	5.096	0.014	100	94114	50.0	46.9	
29 Acetone	43	5.194	5.194	0.000	99	82414	20.0	21.4	
31 1,1,2-Trichloro-1,2,2-trif	151	5.236	5.222	0.014	96	201282	5.00	4.92	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	245910	5.00	4.94	
34 Iodomethane	142	5.417	5.403	0.014	98	338492	5.00	4.85	
35 Methyl acetate	43	5.431	5.431	0.000	98	276316	25.0	25.2	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	82	455397	5.00	5.08	
37 Carbon disulfide	76	5.515	5.501	0.014	99	1155698	5.00	5.04	
38 2-Methyl-2-propanol	59	5.543	5.529	0.014	92	57258	50.0	47.1	
39 Methylene Chloride	84	5.571	5.571	0.000	95	244604	5.00	4.96	
40 Acrylonitrile	53	5.711	5.711	0.000	100	258338	50.0	48.4	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	302602	5.00	4.73	
42 trans-1,2-Dichloroethene	96	5.808	5.795	0.013	97	263681	5.00	4.94	
43 Hexane	57	5.976	5.976	0.000	93	480397	5.00	5.03	
44 Vinyl acetate	43	6.054	6.054	0.000	97	343363	10.0	9.42	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	460165	5.00	4.98	
50 2-Butanone (MEK)	43	6.483	6.476	0.007	100	125844	20.0	18.6	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	96	59228	75.0	69.1	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	233808	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	92	361182	5.00	4.94	
56 Chlorobromomethane	128	6.733	6.733	0.000	96	75102	5.00	4.86	
57 Chloroform	83	6.747	6.747	0.000	94	386230	5.00	4.98	
58 Tetrahydrofuran	42	6.769	6.769	0.000	87	32618	10.0	9.14	
59 Isobutyl alcohol	41	6.940	6.933	0.007	92	48319	125.0	120.4	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	379081	5.00	4.94	
61 Cyclohexane	56	7.055	7.048	0.007	92	521238	5.00	5.17	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	94	373573	5.00	5.03	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	331812	5.00	4.98	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	187787	5.00	4.90	
66 Benzene	78	7.248	7.248	0.000	97	972649	5.00	5.01	
67 n-Heptane	43	7.341	7.341	0.000	93	472030	5.00	5.15	
69 Trichloroethene	95	7.705	7.705	0.000	98	236461	5.00	4.87	
70 2-Pentanone	43	7.734	7.734	0.000	99	150214	10.0	14.1	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	94	207499	5.00	4.87	
73 Methylcyclohexane	55	7.913	7.913	0.000	95	431228	5.00	5.11	
74 1,4-Dioxane	88	7.941	7.941	0.000	94	11812	100.0	98.8	
75 Dibromomethane	93	7.991	7.991	0.000	95	70472	5.00	4.80	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	226869	5.00	4.90	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	93	19967	5.00	4.80	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	239783	5.00	4.82	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	234548	20.0	18.9	
81 Toluene	91	8.678	8.671	0.007	98	964184	5.00	5.13	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	91	94833	5.00	4.39	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	185283	5.00	4.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	96902	5.00	4.77	
85 2-Hexanone	43	9.043	9.035	0.007	96	141601	20.0	17.9	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	94	183453	5.00	4.88	
87 Tetrachloroethene	164	9.093	9.093	0.000	96	201167	5.00	4.85	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	109486	5.00	4.73	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	80077	5.00	4.61	
91 1-Chlorohexane	91	9.607	9.607	0.000	91	148826	2.50	2.28	
92 Chlorobenzene	112	9.715	9.715	0.000	95	565338	5.00	4.82	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	95	170991	5.00	4.83	
94 Ethylbenzene	106	9.750	9.750	0.000	99	357079	5.00	4.94	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	427728	5.00	4.97	
96 Styrene	104	10.144	10.137	0.007	85	571753	5.00	5.06	
97 o-Xylene	106	10.144	10.144	0.000	88	403263	5.00	5.06	
98 Bromoform	173	10.330	10.330	0.000	95	46746	5.00	4.63	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	1097117	5.00	5.32	
101 Cyclohexanone	55	10.508	10.508	0.000	94	62613	200.0	166.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	95	98084	5.00	4.79	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	85	26049	5.00	4.75	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	87	25141	5.00	4.72	
105 Bromobenzene	156	10.709	10.709	-0.001	97	198298	5.00	4.89	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	313486	5.00	5.15	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	900973	5.00	5.25	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	249662	5.00	5.10	
109 4-Chlorotoluene	126	10.909	10.902	0.007	98	237070	5.00	5.02	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	894809	5.00	5.19	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	904356	5.00	5.19	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	249532	5.00	5.12	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	1046474	5.00	5.31	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	97	437908	5.00	4.95	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	427289	5.00	4.96	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	1045164	5.00	5.36	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	96	339934	5.00	4.91	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	75	10427	5.00	4.25	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	203156	5.00	4.79	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	186155	5.00	5.12	
123 Naphthalene	128	13.840	13.840	0.000	97	203017	5.00	4.29	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	155996	5.00	4.85	
S 149 1,2-Dichloroethene, Total	96				0		10.0	9.87	
S 150 Trihalomethanes, Total	1				0		20.0	19.2	
S 151 Xylenes, Total (URS)	1				0		10.0	10.0	
S 152 Total BTEX	1				0			25.1	
S 153 1,3-Dichloropropene, Total	1				0		10.0	9.60	
S 154 1,2-Dichloroethene, Total	1				0		10.0	9.87	
S 155 Xylenes, Total	106				0		10.0	10.0	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	
MV-2cleve+AVA_00015	Amount Added:	2.50	Units: uL	
MV-Main A_00026	Amount Added:	2.50	Units: uL	
MV-Gas/Ket A_00044	Amount Added:	2.50	Units: uL	

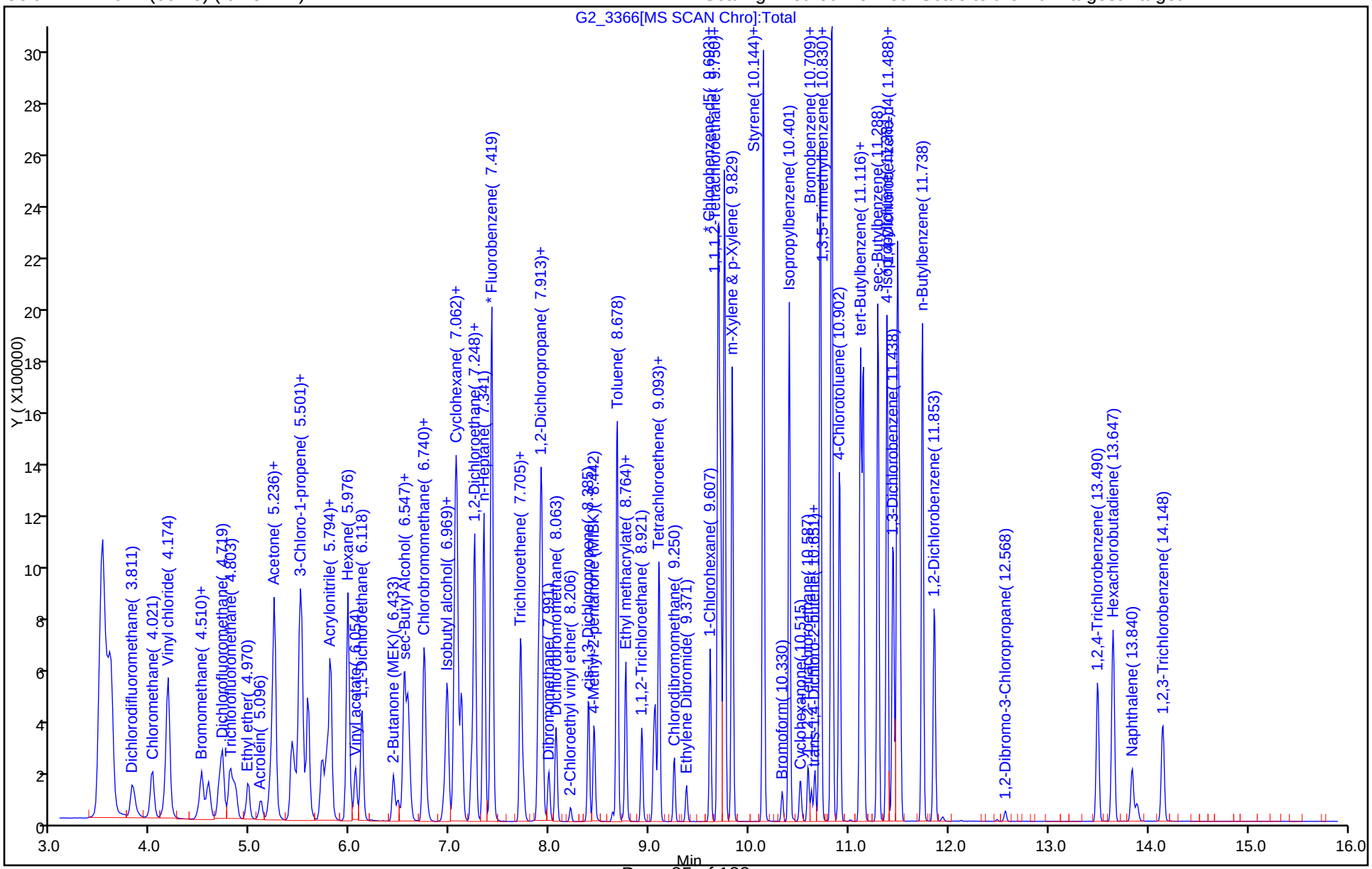
Report Date: 13-Apr-2016 05:42:07 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3366.D

Injection Date:	12-Apr-2016 11:12:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3367.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Apr-2016 11:31:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:08 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 11:55:38

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	5.473	5.473	0.000	0	172129	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1561451	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	317224	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	479689	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	605199	10.0	11.7	
14 Chloromethane	50	4.007	4.007	0.000	99	664427	10.0	11.5	
16 Vinyl chloride	62	4.160	4.160	0.000	98	650962	10.0	11.4	
19 Bromomethane	94	4.510	4.510	0.000	90	408083	10.0	12.8	
20 Chloroethane	64	4.579	4.579	0.000	100	398472	10.0	12.6	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	98	1074185	10.0	11.1	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	100	825006	10.0	11.1	
25 Ethyl ether	59	4.971	4.971	0.000	93	231425	10.0	11.4	
28 Acrolein	56	5.096	5.096	0.000	99	197986	100.0	109.3	
29 Acetone	43	5.194	5.194	0.000	100	157489	40.0	48.5	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	414930	10.0	11.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	512124	10.0	11.4	
34 Iodomethane	142	5.403	5.403	0.000	98	712550	10.0	11.3	
35 Methyl acetate	43	5.431	5.431	0.000	98	552935	50.0	55.9	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	83	939242	10.0	11.6	
37 Carbon disulfide	76	5.501	5.501	0.000	99	2333901	10.0	11.3	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	123623	100.0	112.6	
39 Methylene Chloride	84	5.571	5.571	0.000	95	465407	10.0	11.3	
40 Acrylonitrile	53	5.711	5.711	0.000	99	533423	100.0	110.7	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	658326	10.0	11.4	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	96	542412	10.0	11.3	
43 Hexane	57	5.976	5.976	0.000	93	1014930	10.0	11.9	
44 Vinyl acetate	43	6.054	6.054	0.000	97	748297	20.0	22.8	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	933320	10.0	11.2	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	260350	40.0	42.7	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	95	132274	150.0	163.1	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	488466	10.0	11.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	742293	10.0	11.2	
56 Chlorobromomethane	128	6.733	6.733	0.000	92	150973	10.0	10.8	
57 Chloroform	83	6.747	6.747	0.000	94	777362	10.0	11.1	
58 Tetrahydrofuran	42	6.769	6.769	0.000	86	70331	20.0	21.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	92	96678	250.0	267.0	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	777071	10.0	11.2	
61 Cyclohexane	56	7.048	7.048	0.000	93	1106774	10.0	12.2	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	96	778349	10.0	11.6	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	676026	10.0	11.2	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	384766	10.0	11.1	
66 Benzene	78	7.248	7.248	0.000	96	2027986	10.0	11.6	
67 n-Heptane	43	7.341	7.341	0.000	93	1003461	10.0	12.1	
69 Trichloroethene	95	7.705	7.705	0.000	98	492675	10.0	11.2	
70 2-Pentanone	43	7.734	7.734	0.000	98	215029	20.0	24.0	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	95	430595	10.0	11.2	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	895384	10.0	11.8	
74 1,4-Dioxane	88	7.941	7.941	0.000	96	24650	200.0	219.8	
75 Dibromomethane	93	7.991	7.991	0.000	96	143286	10.0	10.8	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	467964	10.0	11.2	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	94	47013	10.0	9.26	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	531580	10.0	12.0	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	535596	40.0	47.9	
81 Toluene	91	8.671	8.671	0.000	98	2040969	10.0	12.0	
82 Ethyl methacrylate	69	8.757	8.757	0.000	93	221292	10.0	10.7	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	404867	10.0	11.6	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	199143	10.0	10.9	
85 2-Hexanone	43	9.035	9.035	0.000	96	338734	40.0	47.9	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	386333	10.0	11.5	
87 Tetrachloroethene	164	9.093	9.093	0.000	97	415552	10.0	11.2	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	234723	10.0	11.4	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	171767	10.0	11.1	
91 1-Chlorohexane	91	9.607	9.607	0.000	93	347387	5.00	5.54	
92 Chlorobenzene	112	9.715	9.715	0.000	93	1163679	10.0	11.1	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	95	357568	10.0	11.3	
94 Ethylbenzene	106	9.750	9.750	0.000	99	755587	10.0	11.7	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	908437	10.0	11.8	
96 Styrene	104	10.137	10.137	0.000	86	1242905	10.0	12.3	
97 o-Xylene	106	10.144	10.144	0.000	88	856177	10.0	12.0	
98 Bromoform	173	10.330	10.330	0.000	95	99771	10.0	11.1	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2363043	10.0	12.4	
101 Cyclohexanone	55	10.508	10.508	0.000	95	157204	400.0	438.7	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	205898	10.0	10.9	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	57395	10.0	11.4	
104 1,2,3-Trichloropropane	110	10.659	10.659	0.000	86	52363	10.0	10.7	
105 Bromobenzene	156	10.709	10.709	0.000	96	416701	10.0	11.2	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	670803	10.0	12.0	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1916337	10.0	12.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	514973	10.0	11.4	
109 4-Chlorotoluene	126	10.902	10.902	0.000	99	499791	10.0	11.5	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	1933242	10.0	12.2	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	1895236	10.0	11.8	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	535994	10.0	11.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	2205137	10.0	12.2	
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	901012	10.0	11.1	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	868315	10.0	10.9	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	2180102	10.0	12.1	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	97	712672	10.0	11.2	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	78	25971	10.0	11.5	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	481956	10.0	12.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	381365	10.0	11.4	
123 Naphthalene	128	13.840	13.840	0.000	97	520870	10.0	11.0	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	344490	10.0	11.6	
S 149 1,2-Dichloroethene, Total	96				0		20.0	22.7	
S 150 Trihalomethanes, Total	1				0		40.0	44.7	
S 151 Xylenes, Total (URS)	1				0		20.0	23.8	
S 153 1,3-Dichloropropene, Total	1				0		20.0	23.5	
S 154 1,2-Dichloroethene, Total	1				0		20.0	22.7	
S 155 Xylenes, Total	106				0		20.0	23.8	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	5.00	Units: uL
MV-Main A_00026	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	5.00	Units: uL

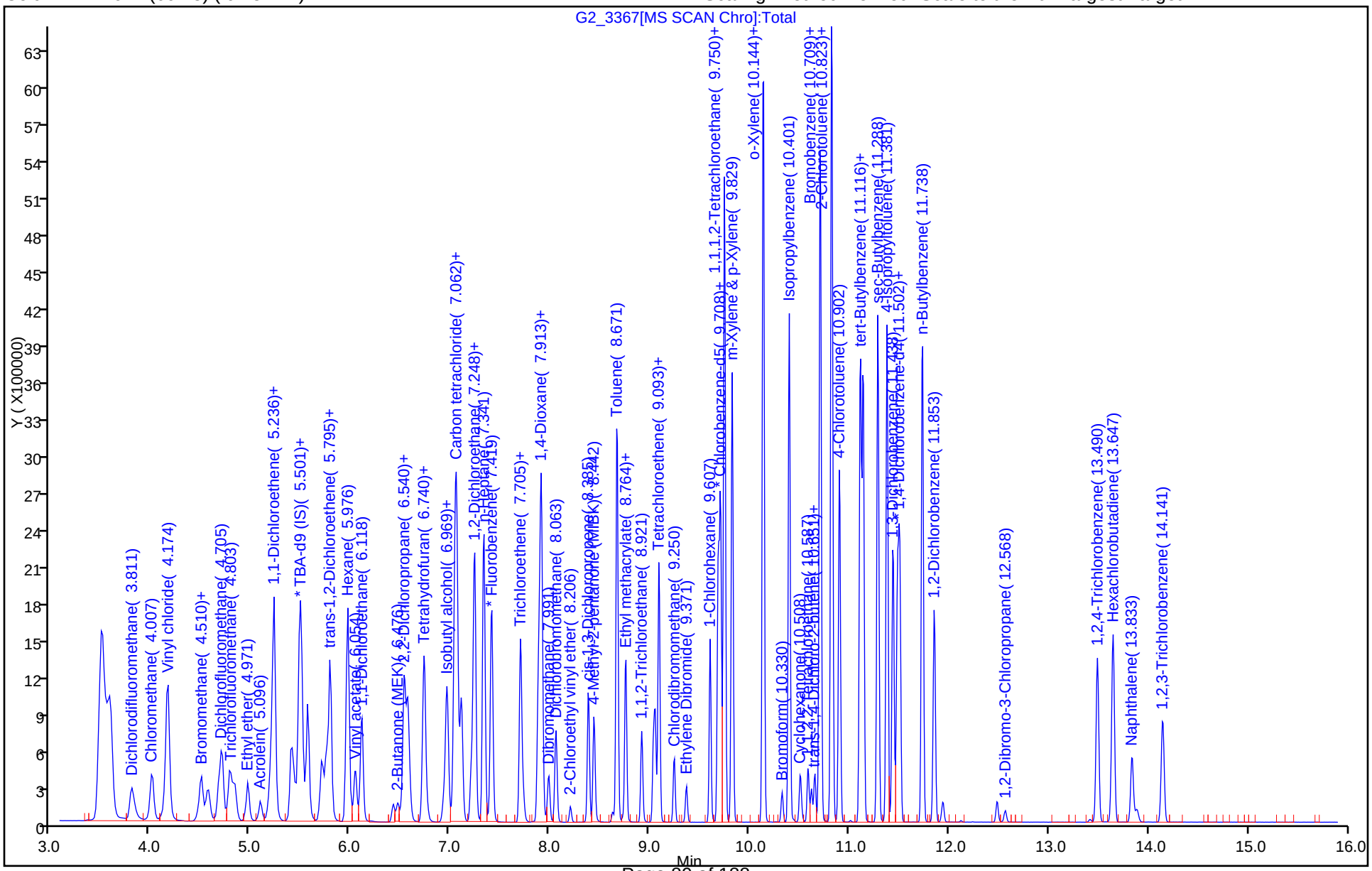
Report Date: 13-Apr-2016 05:42:08 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3367.D

Injection Date:	12-Apr-2016 11:31:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	14
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3368.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2016 11:50:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:09 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:12:43

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	5.473	5.473	0.000	0	229678	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2025271	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	415533	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	637745	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	1779575	30.0	26.5	
14 Chloromethane	50	4.021	4.007	0.014	99	1928629	30.0	25.6	
16 Vinyl chloride	62	4.174	4.160	0.014	98	1907373	30.0	25.7	
19 Bromomethane	94	4.510	4.510	0.000	90	1190473	30.0	31.4	
20 Chloroethane	64	4.579	4.579	0.000	100	1150465	30.0	30.4	
21 Dichlorofluoromethane	67	4.719	4.705	0.014	97	3244723	30.0	26.0	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	2500540	30.0	25.8	
25 Ethyl ether	59	4.970	4.971	-0.001	93	759091	30.0	28.9	
28 Acrolein	56	5.096	5.096	0.000	99	664687	300.0	283.0	
29 Acetone	43	5.194	5.194	0.000	100	464357	120.0	113.8	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	1252846	30.0	26.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	99	1623004	30.0	27.8	
34 Iodomethane	142	5.403	5.403	0.000	98	2276112	30.0	27.9	
35 Methyl acetate	43	5.431	5.431	0.000	98	1636782	150.0	127.6	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	2850325	30.0	27.1	
37 Carbon disulfide	76	5.515	5.501	0.014	99	6971609	30.0	26.0	
38 2-Methyl-2-propanol	59	5.543	5.529	0.014	92	390275	300.0	274.1	
39 Methylene Chloride	84	5.571	5.571	0.000	94	1393234	30.0	27.2	
40 Acrylonitrile	53	5.711	5.711	0.000	99	1695174	300.0	271.1	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	96	2168717	30.0	29.0	
42 trans-1,2-Dichloroethene	96	5.795	5.795	-0.001	97	1684814	30.0	27.0	
43 Hexane	57	5.976	5.976	0.000	92	3131114	30.0	28.0	
44 Vinyl acetate	43	6.054	6.054	0.000	97	2511357	60.0	58.9	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	2833342	30.0	26.2	
50 2-Butanone (MEK)	43	6.483	6.476	0.007	100	803143	120.0	101.5	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	95	445080	450.0	414.7	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	1543418	30.0	27.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	2296519	30.0	26.8	
56 Chlorobromomethane	128	6.733	6.733	0.000	93	483297	30.0	26.7	
57 Chloroform	83	6.747	6.747	0.000	94	2391493	30.0	26.3	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	251132	60.0	60.1	
59 Isobutyl alcohol	41	6.940	6.933	0.007	94	325822	750.0	693.7	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	2386391	30.0	26.6	
61 Cyclohexane	56	7.048	7.048	0.000	92	3365136	30.0	28.5	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	2370615	30.0	27.3	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	2093900	30.0	26.8	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	1187828	30.0	26.5	
66 Benzene	78	7.248	7.248	0.000	96	6237157	30.0	27.4	
67 n-Heptane	43	7.341	7.341	0.000	92	3078939	30.0	28.7	
69 Trichloroethene	95	7.705	7.705	0.000	98	1580874	30.0	27.8	
70 2-Pentanone	43	7.734	7.734	0.000	99	614114	60.0	56.1	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	96	1345859	30.0	27.0	
73 Methylcyclohexane	55	7.913	7.913	0.000	96	2760645	30.0	28.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	94	76960	600.0	519.8	
75 Dibromomethane	93	7.991	7.991	0.000	97	452971	30.0	26.4	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	1488979	30.0	27.5	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	206246	30.0	26.5	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	1766404	30.0	30.3	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	97	1764505	120.0	121.7	
81 Toluene	91	8.678	8.671	0.007	98	6292940	30.0	28.6	
82 Ethyl methacrylate	69	8.757	8.757	-0.001	91	780160	30.0	27.9	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	1309323	30.0	28.8	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	91	635597	30.0	26.7	
85 2-Hexanone	43	9.035	9.035	0.000	95	1146559	120.0	123.7	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	94	1206892	30.0	27.4	
87 Tetrachloroethene	164	9.093	9.093	0.000	97	1306535	30.0	26.9	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	768438	30.0	28.4	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	564038	30.0	27.7	
91 1-Chlorohexane	91	9.607	9.607	0.000	97	1172655	15.0	13.9	
92 Chlorobenzene	112	9.715	9.715	0.000	93	3628786	30.0	26.4	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	96	1186530	30.0	28.6	
94 Ethylbenzene	106	9.750	9.750	0.000	98	2415766	30.0	28.5	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	2902670	30.0	28.8	
96 Styrene	104	10.136	10.137	-0.001	87	4039014	30.0	30.5	
97 o-Xylene	106	10.144	10.144	0.000	88	2728264	30.0	29.2	
98 Bromoform	173	10.330	10.330	0.000	97	342929	30.0	29.0	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	7418138	30.0	29.4	
101 Cyclohexanone	55	10.508	10.508	0.000	94	532452	1200.0	1108.8	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	663063	30.0	26.4	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	191021	30.0	28.4	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	170529	30.0	26.1	
105 Bromobenzene	156	10.709	10.709	0.000	97	1377601	30.0	27.7	
106 N-Propylbenzene	120	10.716	10.716	0.000	98	2175577	30.0	29.2	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	6123051	30.0	29.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	1692514	30.0	28.2	
109 4-Chlorotoluene	126	10.902	10.902	0.000	98	1645179	30.0	28.4	
110 tert-Butylbenzene	119	11.116	11.116	0.000	94	6259387	30.0	29.7	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	6073732	30.0	28.4	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	1772738	30.0	29.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	7066922	30.0	29.3	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	98	2926851	30.0	27.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	2805461	30.0	26.6	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	6937702	30.0	29.0	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	97	2345880	30.0	27.7	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	79	86860	30.0	28.9	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	1607958	30.0	30.9	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	97	1270034	30.0	28.5	
123 Naphthalene	128	13.833	13.840	-0.007	97	1893854	30.0	29.0	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	1179694	30.0	29.9	
S 149 1,2-Dichloroethene, Total	96				0		60.0	54.8	
S 150 Trihalomethanes, Total	1				0		120.0	111.2	
S 151 Xylenes, Total (URS)	1				0		60.0	58.0	
S 152 Total BTEX	1				0			142.6	
S 153 1,3-Dichloropropene, Total	1				0		60.0	59.2	
S 154 1,2-Dichloroethene, Total	1				0		60.0	54.8	
S 155 Xylenes, Total	106				0		60.0	58.0	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	15.00	Units: uL
MV-Main A_00026	Amount Added:	15.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	15.00	Units: uL

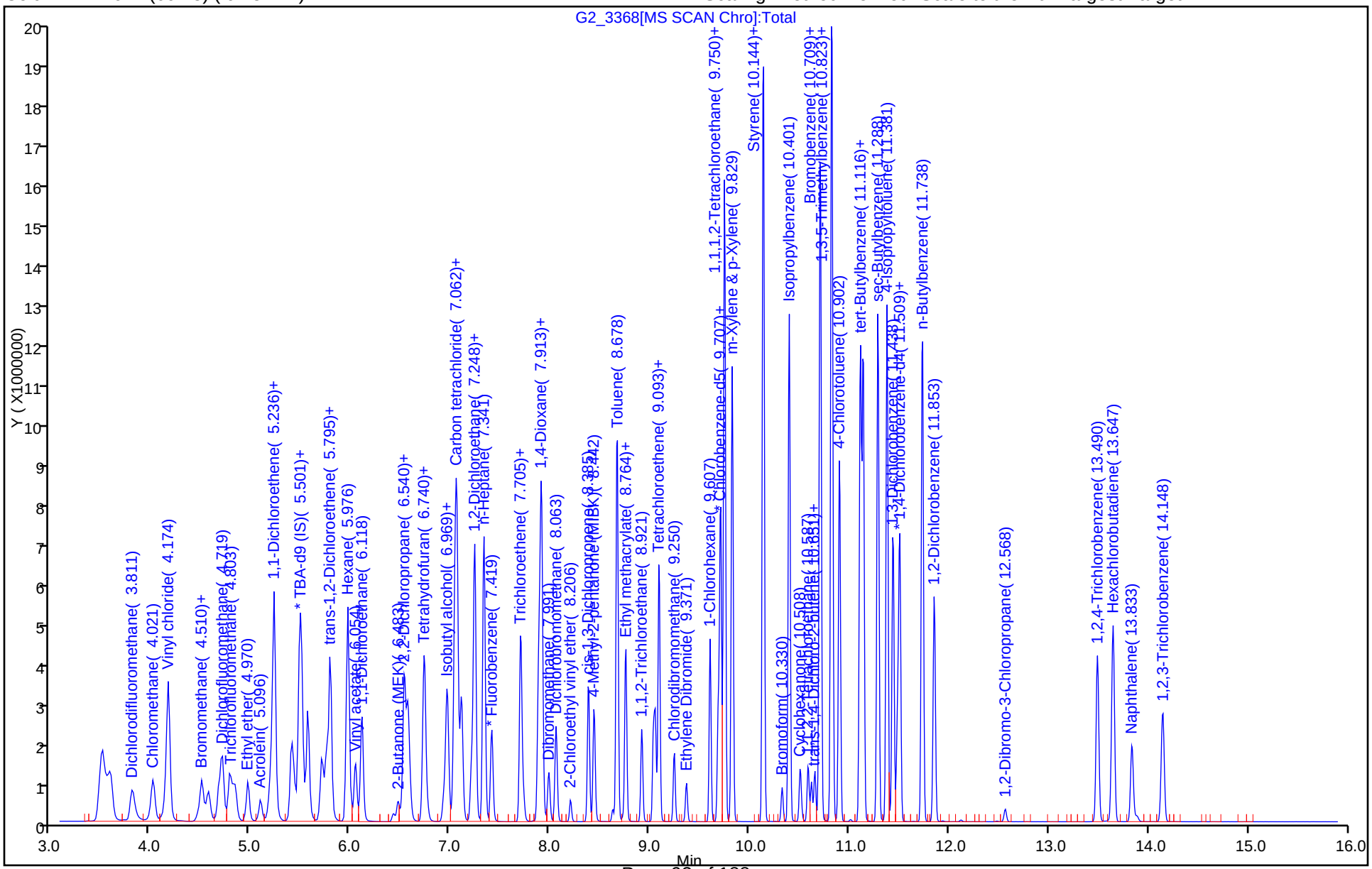
Report Date: 13-Apr-2016 05:42:09 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3368.D

Injection Date:	12-Apr-2016 11:50:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2016 12:10:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:10 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:48:00

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	5.473	5.473	0.000	0	227320	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2095404	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	422876	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	638278	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	100	3754063	60.0	54.0	
14 Chloromethane	50	4.021	4.007	0.014	99	3946169	60.0	50.7	
16 Vinyl chloride	62	4.160	4.160	0.000	99	3878062	60.0	50.5	
19 Bromomethane	94	4.510	4.510	0.000	90	2244069	60.0	58.9	
20 Chloroethane	64	4.579	4.579	0.000	100	2265276	60.0	59.4	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	98	6806506	60.0	51.4	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	100	5412577	60.0	54.1	
25 Ethyl ether	59	4.970	4.971	-0.001	92	1676633	60.0	61.6	
28 Acrolein	56	5.096	5.096	0.000	99	1462792	599.9	601.9	
29 Acetone	43	5.194	5.194	0.000	100	989399	240.0	237.3	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	2734741	60.0	55.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	99	3535584	60.0	58.6	
34 Iodomethane	142	5.403	5.403	0.000	98	4989443	60.0	59.0	
35 Methyl acetate	43	5.431	5.431	0.000	98	3470196	300.0	261.4	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	87	5881519	60.0	54.1	
37 Carbon disulfide	76	5.501	5.501	0.000	99	14451939	60.0	52.1	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	900597	600.0	611.2	
39 Methylene Chloride	84	5.571	5.571	0.000	93	2970882	60.0	56.9	
40 Acrylonitrile	53	5.711	5.711	0.000	100	3655586	600.0	565.1	
41 Methyl tert-butyl ether	73	5.767	5.767	-0.001	96	4780512	60.0	61.8	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	98	3698424	60.0	57.2	
43 Hexane	57	5.976	5.976	0.000	92	6739530	60.0	59.2	
44 Vinyl acetate	43	6.054	6.054	0.000	97	5416264	120.0	122.7	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	6033247	60.0	53.9	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	1734210	240.0	211.8	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	94	1025184	900.0	916.6	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	82	3385643	60.0	58.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	88	4915682	60.0	55.5	
56 Chlorobromomethane	128	6.733	6.733	0.000	95	1075092	60.0	57.5	
57 Chloroform	83	6.747	6.747	0.000	94	5124646	60.0	54.5	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	563318	120.0	130.3	
59 Isobutyl alcohol	41	6.933	6.933	0.000	95	722239	1500.0	1486.1	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	99	5131334	60.0	55.2	
61 Cyclohexane	56	7.048	7.048	0.000	91	7057141	60.0	57.7	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	5080109	60.0	56.5	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	4528999	60.0	56.1	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	2578731	60.0	55.5	
66 Benzene	78	7.248	7.248	0.000	97	13121738	60.0	55.8	
67 n-Heptane	43	7.341	7.341	0.000	90	6458539	60.0	58.2	
69 Trichloroethene	95	7.705	7.705	0.000	99	3527157	60.0	60.0	
70 2-Pentanone	43	7.734	7.734	0.000	99	1337870	120.0	121.1	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	96	2857275	60.0	55.3	
73 Methylcyclohexane	55	7.913	7.913	0.000	93	5781181	60.0	56.6	
74 1,4-Dioxane	88	7.941	7.941	0.000	95	193813	1200.0	1255.7	
75 Dibromomethane	93	7.991	7.991	0.000	97	1014698	60.0	57.1	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	3304675	60.0	58.9	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	522519	60.0	61.8	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	3912514	60.0	66.0	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	96	3758178	240.0	250.6	
81 Toluene	91	8.678	8.671	0.007	98	12761641	60.0	56.0	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	91	1779494	60.0	62.0	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	2865504	60.0	61.0	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	91	1413044	60.0	57.4	
85 2-Hexanone	43	9.035	9.035	0.000	94	2470484	240.0	261.8	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	2616740	60.0	58.4	
87 Tetrachloroethene	164	9.093	9.093	-0.001	98	2927045	60.0	59.2	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	1751046	60.0	63.5	
90 Ethylene Dibromide	107	9.371	9.371	0.000	99	1272532	60.0	61.5	
91 1-Chlorohexane	91	9.607	9.607	0.000	98	2683081	30.0	30.9	
92 Chlorobenzene	112	9.715	9.715	0.000	93	7812338	60.0	55.9	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	96	2569689	60.0	60.8	
94 Ethylbenzene	106	9.750	9.750	0.000	98	5088473	60.0	59.1	e
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	98	6278339	60.0	61.3	a
96 Styrene	104	10.136	10.137	-0.001	86	8162971	60.0	60.7	
97 o-Xylene	106	10.144	10.144	0.000	87	5492779	60.0	57.8	
98 Bromoform	173	10.329	10.330	-0.001	96	808361	60.0	67.2	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	14197299	60.0	56.2	e
101 Cyclohexanone	55	10.508	10.508	0.000	93	1223578	2400.0	2483.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	1469722	60.0	58.6	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	92	427263	60.0	63.6	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	377941	60.0	57.9	
105 Bromobenzene	156	10.708	10.709	-0.001	95	2997359	60.0	60.3	
106 N-Propylbenzene	120	10.716	10.716	0.000	96	4668495	60.0	62.5	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	96	11978777	60.0	56.9	
108 2-Chlorotoluene	126	10.830	10.830	0.000	96	3505310	60.0	58.4	
109 4-Chlorotoluene	126	10.909	10.902	0.007	97	3648733	60.0	63.0	
110 tert-Butylbenzene	119	11.116	11.116	0.000	92	12932862	60.0	61.2	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	12267542	60.0	57.4	
112 sec-Butylbenzene	134	11.288	11.288	0.000	96	3872887	60.0	64.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	95	13799883	60.0	57.2	e
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	98	6283851	60.0	58.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	6035069	60.0	57.1	
117 n-Butylbenzene	91	11.738	11.738	0.000	96	13585221	60.0	56.8	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	97	5020008	60.0	59.1	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	82	200041	60.0	66.5	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	3292748	60.0	63.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	2629154	60.0	58.8	
123 Naphthalene	128	13.833	13.840	-0.007	97	4004235	60.0	60.7	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	2411625	60.0	61.1	
S 149 1,2-Dichloroethene, Total	96				0		120.0	116.2	
S 150 Trihalomethanes, Total	1				0		240.0	244.2	
S 151 Xylenes, Total (URS)	1				0		120.0	119.0	
S 152 Total BTEX	1				0			289.9	
S 153 1,3-Dichloropropene, Total	1				0		120.0	127.0	
S 154 1,2-Dichloroethene, Total	1				0		120.0	116.2	
S 155 Xylenes, Total	106				0		120.0	119.0	

QC Flag Legend

Processing Flags
e - Potential Peak Saturated
Review Flags
a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	30.00	Units: uL
MV-Main A_00026	Amount Added:	30.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	30.00	Units: uL

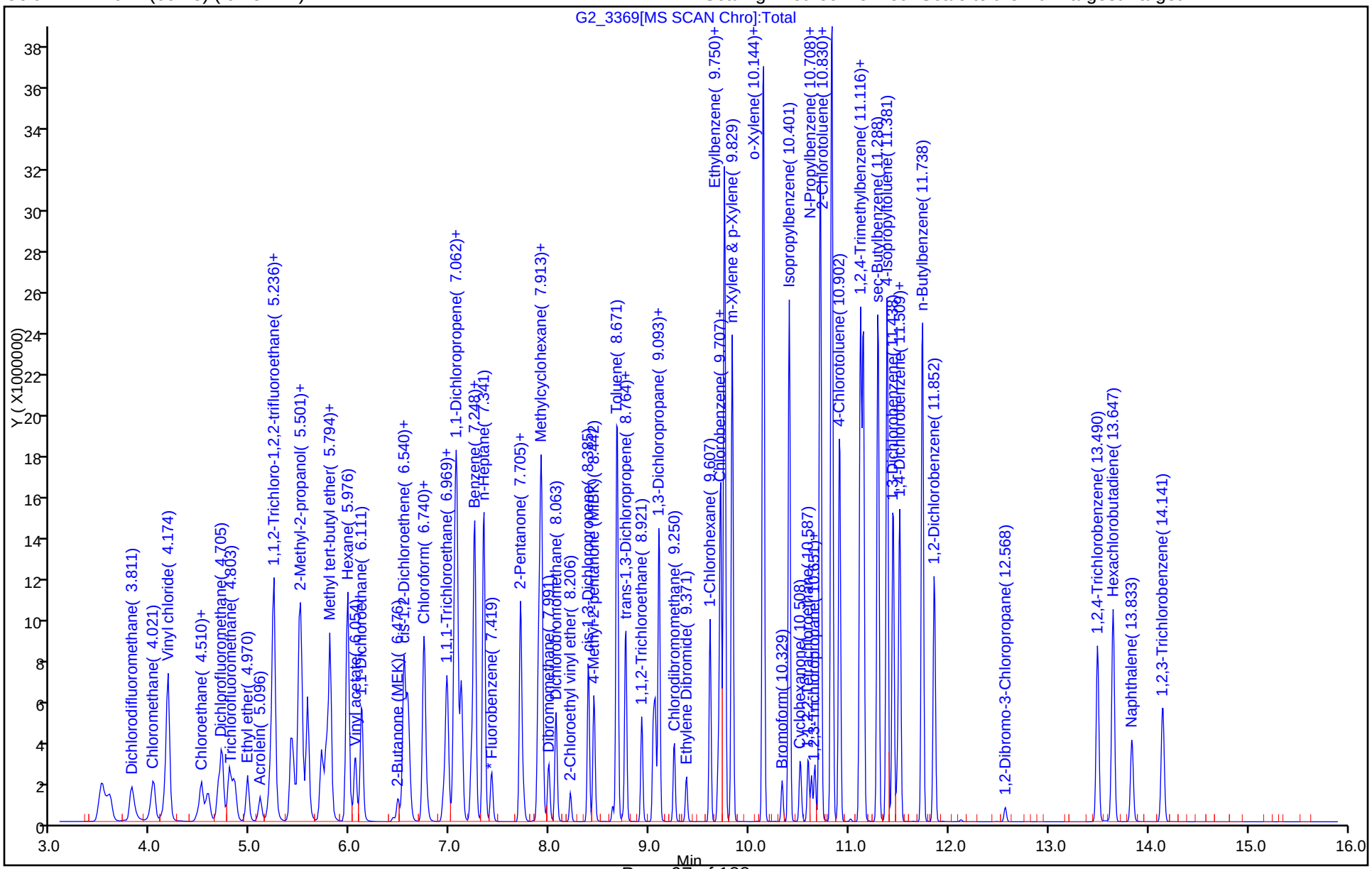
Report Date: 13-Apr-2016 05:42:10 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D

Injection Date:	12-Apr-2016 12:10:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

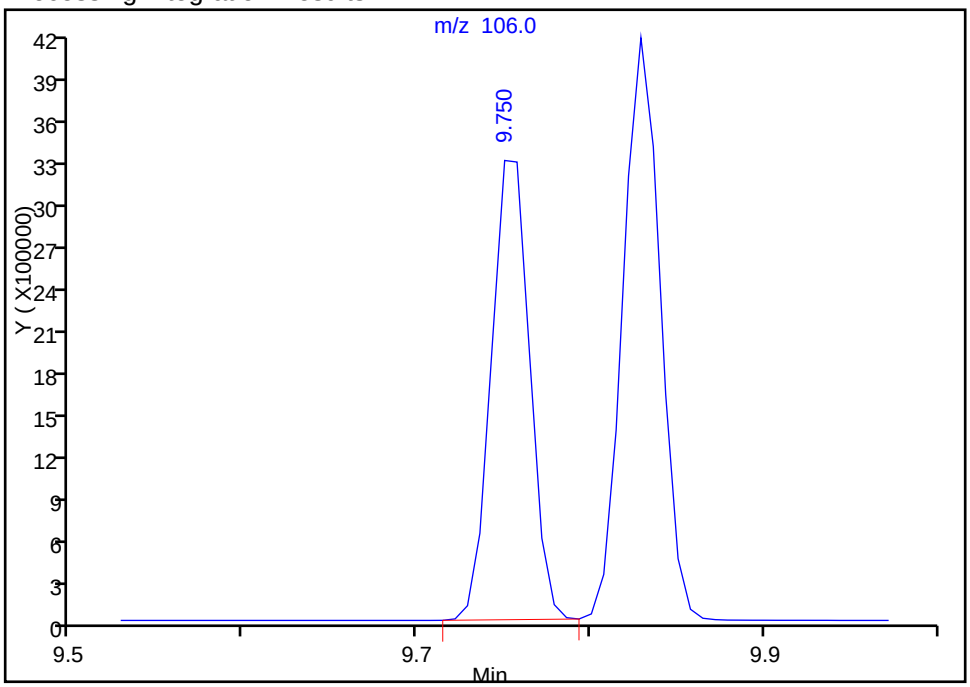
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D
Injection Date: 12-Apr-2016 12:10:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: ilczyszynd ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

95 m-Xylene & p-Xylene, CAS: 179601-23-1

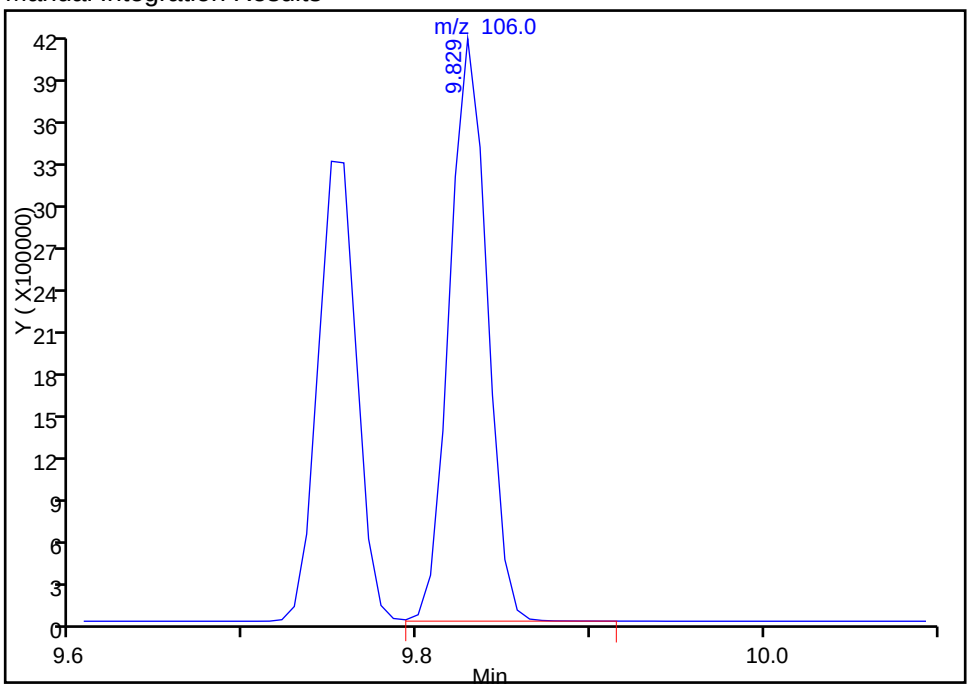
Processing Integration Results

RT: 9.75
Area: 5088473
Amount: 51.308214
Amount Units: ug/l



Manual Integration Results

RT: 9.83
Area: 6278339
Amount: 61.264156
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:48:00
Audit Action: Assigned Compound ID
Audit Reason: Wrong peak

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/18	G2_3361.D
Level 2	IC 280-320302/19	G2_3373.D
Level 3	IC 280-320302/20	G2_3374.D
Level 4	ICIS 280-320302/21	G2_3375.D
Level 5	IC 280-320302/22	G2_3376.D
Level 6	IC 280-320302/23	G2_3377.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	+++++ 0.0009	0.0012	0.0010	0.0010	0.0009	Ave		0.0010				10.9		15.0			
Propene oxide	0.0266 +++++	0.0282	0.0265	0.0277	0.0221	Ave		0.0262				9.1		15.0			
Isopropyl alcohol	0.0068 0.0057	0.0063	0.0058	0.0061	0.0057	Ave		0.0061				7.4		15.0			
Acetonitrile	0.0131 0.0115	0.0132	0.0120	0.0130	0.0114	Ave		0.0124				6.6		15.0			
Isopropyl ether	0.1989 0.2272	0.2106	0.2097	0.2341	0.2182	Ave		0.2164				5.9		15.0			
Chloroprene	0.5988 0.6254	0.6151	0.6322	0.6900	0.6201	Ave		0.6303				5.0		15.0			
Ethyl tert-Butyl Ether (ETBE)	0.6092 0.6809	0.6480	0.6457	0.7241	0.6669	Ave		0.6625				5.8		15.0			
Ethyl acetate	0.0957 0.0917	0.0991	0.0914	0.0990	0.0892	Ave		0.0943				4.5		15.0			
Propionitrile	0.0129 0.0129	0.0134	0.0131	0.0139	0.0127	Ave		0.0131				3.4		15.0			
Methacrylonitrile	0.0611 0.0611	0.0648	0.0640	0.0698	0.0619	Ave		0.0638				5.2		15.0			
Tert-amyl methyl ether	0.4107 0.5096	0.4471	0.4558	0.5147	0.4933	Ave		0.4719				8.7		15.0			
Methyl methacrylate	0.0223 0.0319	0.0235	0.0253	0.0295	0.0298	Ave		0.0270				14.4		15.0			
2-Nitropropane	0.0206 0.0242	0.0210	0.0205	0.0240	0.0234	Ave		0.0223				7.9		15.0			
cis-1,4-Dichloro-2-butene	0.1191 0.1617	0.1323	0.1361	0.1540	0.1506	Ave		0.1423				11.1		15.0			
Dibromofluoromethane (Surr)	0.2550 0.2594	0.2576	0.2594	0.2758	0.2493	Ave		0.2594				3.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

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								
1,2-Dichloroethane-d4 (Surr)	0.2133 0.2170	0.2247	0.2209	0.2368	0.2116	Ave		0.2207				4.2		15.0			
Toluene-d8 (Surr)	5.4051 5.6175	5.4077	5.6824	6.2840	5.7273	Ave		5.6873				5.7		15.0			
4-Bromofluorobenzene (Surr)	1.1442 1.3669	1.1557	1.2607	1.3813	1.3038	Ave		1.2688				8.0		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/18	G2_3361.D
Level 2	IC 280-320302/19	G2_3373.D
Level 3	IC 280-320302/20	G2_3374.D
Level 4	ICIS 280-320302/21	G2_3375.D
Level 5	IC 280-320302/22	G2_3376.D
Level 6	IC 280-320302/23	G2_3377.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	FB	Ave	+++++ 409867	17695	38343	68099	211632	+++++ 3000	100	250	500	1500
Propene oxide	FB	Ave	414474 +++++	840750	1938042	3677516	10139154	100 +++++	200	500	1000	3000
Isopropyl alcohol	FB	Ave	10625 512921	18786	42460	81749	259060	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Ave	25475 1294515	49170	109767	216290	655244	12.5 750	25.0	62.5	125	375
Isopropyl ether	FB	Ave	38707 2559247	78555	191741	389006	1248981	1.25 75.0	2.50	6.25	12.5	37.5
Chloroprene	FB	Ave	93235 5636416	183580	462396	917185	2839657	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl tert-Butyl Ether (ETBE)	FB	Ave	118576 7670600	241772	590286	1203197	3817221	1.25 75.0	2.50	6.25	12.5	37.5
Ethyl acetate	FB	Ave	29795 1652542	59151	133698	263095	816587	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	25018 1457189	49929	119539	231258	726077	12.5 750	25.0	62.5	125	375
Methacrylonitrile	FB	Ave	95172 5508477	193424	467888	927346	2834422	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	79935 5740925	166802	416690	855179	2823346	1.25 75.0	2.50	6.25	12.5	37.5
Methyl methacrylate	FB	Ave	6931 574893	14006	37053	78429	272646	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	6420 436832	12524	30058	63728	214201	2.00 120	4.00	10.0	20.0	60.0
cis-1,4-Dichloro-2-butene	DCB	Ave	9948 805383	21132	52839	111768	383836	2.00 120	4.00	10.0	20.0	60.0
Dibromofluoromethane (Surr)	FB	Ave	39713 2338163	76882	189747	366689	1141354	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	33207 1955867	67064	161541	314796	969139	1.00 60.0	2.00	5.00	10.0	30.0

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

Lab Name: TestAmerica Denver Job No.: 280-81433-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

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
Toluene-d8 (Surr)	CBZ	Ave	168846 9979459	324675	836272	1679804	5201660	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	47784 3404686	92291	244669	501119	1661381	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:
Ave = Average ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3361.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2016 12:48:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:11 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:34:47

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	5.473	5.473	0.000	0	207175	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1946442	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	390481	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	522024	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	92	39713	1.00	0.9830	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	33207	1.00	0.9662	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	168846	1.00	0.9504	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	47784	1.00	0.9018	
18 Ethylene oxide	43	4.454	4.454	0.000	100	38609	40.0	-21.6	
23 Ethanol	45		4.817				ND	ND	
27 Propene oxide	58	5.068	5.054	0.014	97	414474	100.0	106.6	
30 Isopropyl alcohol	45	5.222	5.208	0.014	88	10625	10.0	11.2	
33 Acetonitrile	41	5.417	5.417	0.000	100	25475	12.5	13.2	
45 Isopropyl ether	87	6.082	6.082	0.000	93	38707	1.25	1.15	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	93235	1.00	0.9500	
48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	97	118576	1.25	1.15	
49 Ethyl acetate	43	6.476	6.475	0.001	95	29795	2.00	2.03	
51 Propionitrile	54	6.533	6.526	0.007	98	25018	12.5	12.2	
55 Methacrylonitrile	41	6.661	6.654	0.007	92	95172	10.0	9.58	
65 Tert-amyl methyl ether	73	7.248	7.241	0.007	95	79935	1.25	1.09	
68 n-Butanol	56	7.427	7.434	-0.007	25	21043	25.0	25.3	
71 Methyl methacrylate	100	7.841	7.841	0.000	91	6931	2.00	1.65	
77 2-Nitropropane	41	8.192	8.192	0.000	93	6420	2.00	1.85	
89 Tetrahydrothiophene	60		9.293				ND	ND	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	35	9948	2.00	1.67	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	96	163450	1.00	0.9452	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	68685	1.00	0.9698	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.08	Units: uL
MV-Supp A_00018	Amount Added:	0.50	Units: uL

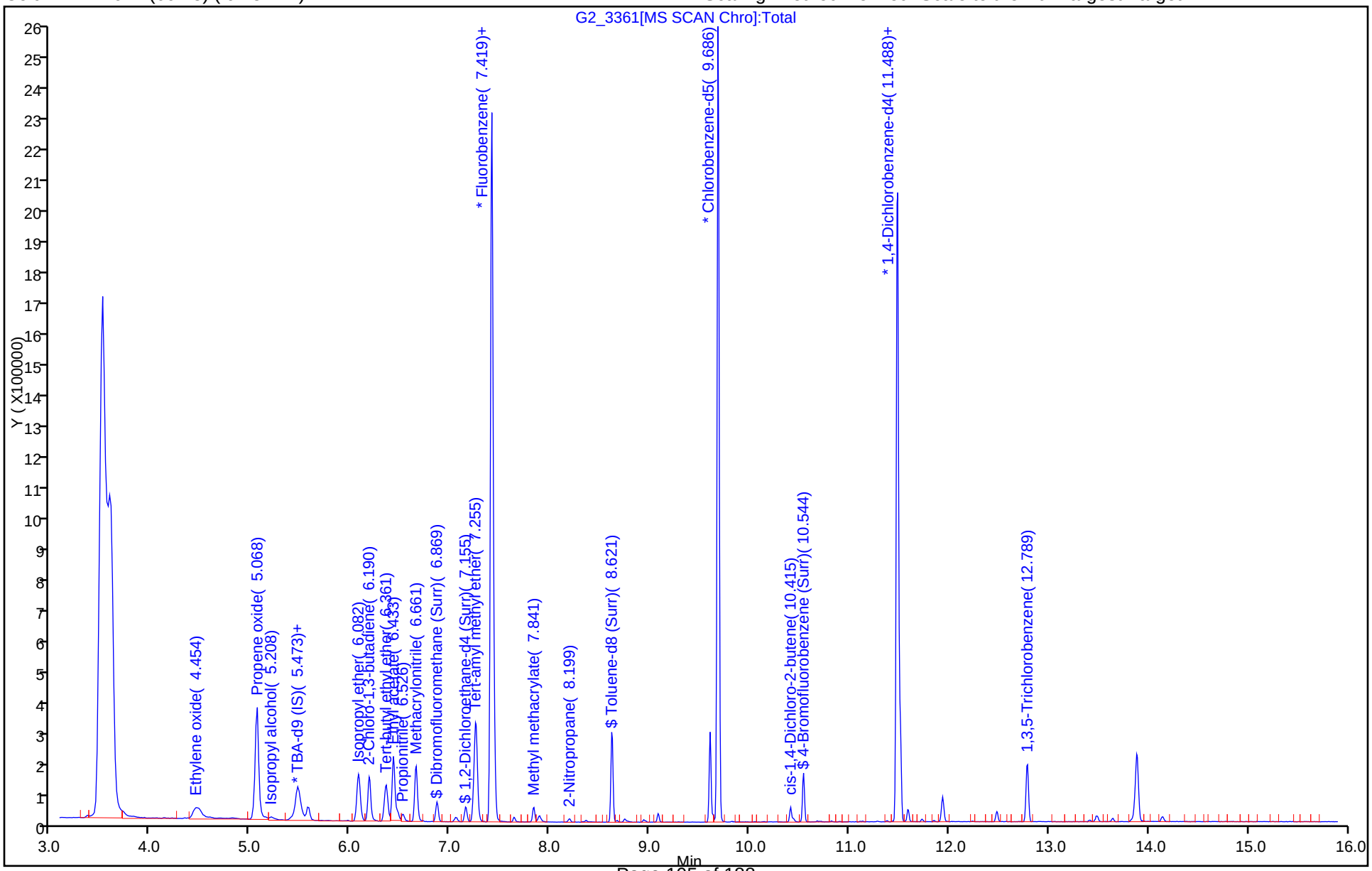
Report Date: 13-Apr-2016 05:42:12 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3361.D

Injection Date:	12-Apr-2016 12:48:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	18
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3373.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2016 13:31:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:12 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:03

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	5.473	5.473	0.000	0	195402	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1865381	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	375247	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	499110	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	76882	2.00	1.99	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	98	67064	2.00	2.04	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	324675	2.00	1.90	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	92291	2.00	1.82	
18 Ethylene oxide	43	4.468	4.454	0.014	99	74357	80.0	39.4	
23 Ethanol	45	4.817	4.817	0.000	97	17695	100.0	116.4	
27 Propene oxide	58	5.054	5.054	0.000	97	840750	200.0	225.7	
30 Isopropyl alcohol	45	5.208	5.208	0.000	95	18786	20.0	20.7	
33 Acetonitrile	41	5.403	5.417	-0.014	99	49170	25.0	26.6	
45 Isopropyl ether	87	6.082	6.082	0.000	93	78555	2.50	2.43	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	183580	2.00	1.95	
48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	97	241772	2.50	2.45	
49 Ethyl acetate	43	6.475	6.475	0.000	99	59151	4.00	4.20	
51 Propionitrile	54	6.526	6.526	0.000	99	49929	25.0	25.5	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	193424	20.0	20.3	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	92	166802	2.50	2.37	
68 n-Butanol	56	7.434	7.434	0.000	26	31684	50.0	49.4	
71 Methyl methacrylate	100	7.841	7.841	0.000	92	14006	4.00	3.47	
77 2-Nitropropane	41	8.192	8.192	0.000	96	12524	4.00	3.77	
89 Tetrahydrothiophene	60	9.286	9.293	-0.007	79	1398	4.00	7.14	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	35	21132	4.00	3.72	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	318458	2.00	1.93	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	96	125366	2.00	1.85	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.16	Units: uL
MV-Supp A_00018	Amount Added:	1.00	Units: uL

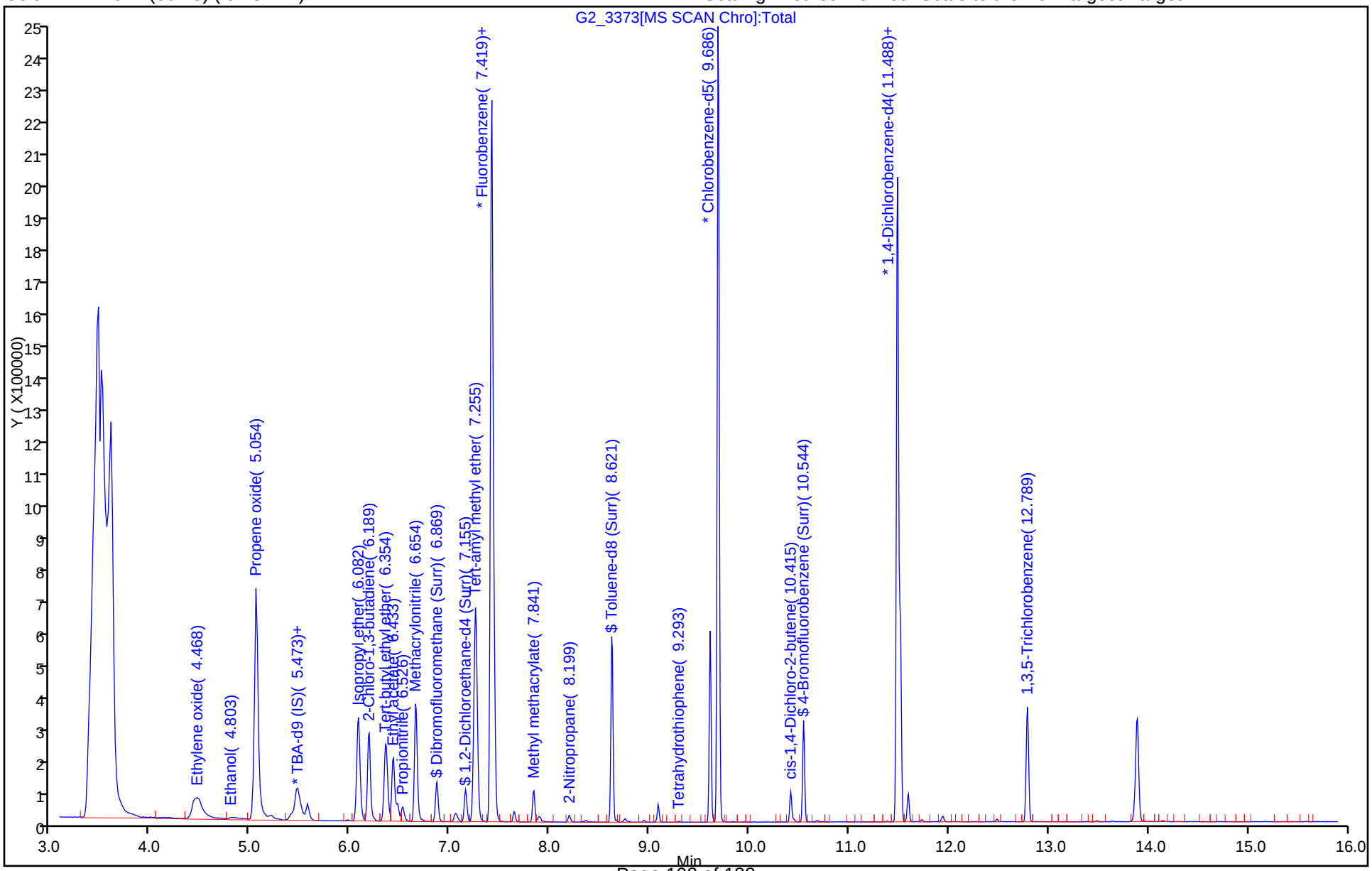
Report Date: 13-Apr-2016 05:42:13 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3373.D

Injection Date:	12-Apr-2016 13:31:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	19
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3374.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2016 13:51:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:13 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:19

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	5.473	5.473	0.000	0	187474	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1828421	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	367919	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	95	485179	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	189747	5.00	5.00	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	161541	5.00	5.00	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	836272	5.00	5.00	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	244669	5.00	4.97	
18 Ethylene oxide	43	4.454	4.454	0.000	99	164888	200.0	192.7	
23 Ethanol	45	4.817	4.817	0.000	98	38343	250.0	257.4	
27 Propene oxide	58	5.054	5.054	0.000	96	1938042	500.0	530.7	
30 Isopropyl alcohol	45	5.208	5.208	0.000	97	42460	50.0	47.8	
33 Acetonitrile	41	5.403	5.417	-0.014	97	109767	62.5	60.7	
45 Isopropyl ether	87	6.082	6.082	0.000	94	191741	6.25	6.06	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	462396	5.00	5.02	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	590286	6.25	6.09	
49 Ethyl acetate	43	6.476	6.475	0.001	98	133698	10.0	9.69	
51 Propionitrile	54	6.526	6.526	0.000	99	119539	62.5	62.2	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	467888	50.0	50.2	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	96	416690	6.25	6.04	
68 n-Butanol	56	7.434	7.434	0.000	60	63963	125.0	119.7	
71 Methyl methacrylate	100	7.841	7.841	0.000	93	37053	10.0	9.37	
77 2-Nitropropane	41	8.199	8.192	0.007	96	30058	10.0	9.22	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	91	4653	10.0	10.9	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	90	52839	10.0	9.57	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	789790	5.00	4.91	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	299506	5.00	4.55	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.40	Units: uL
MV-Supp A_00018	Amount Added:	2.50	Units: uL

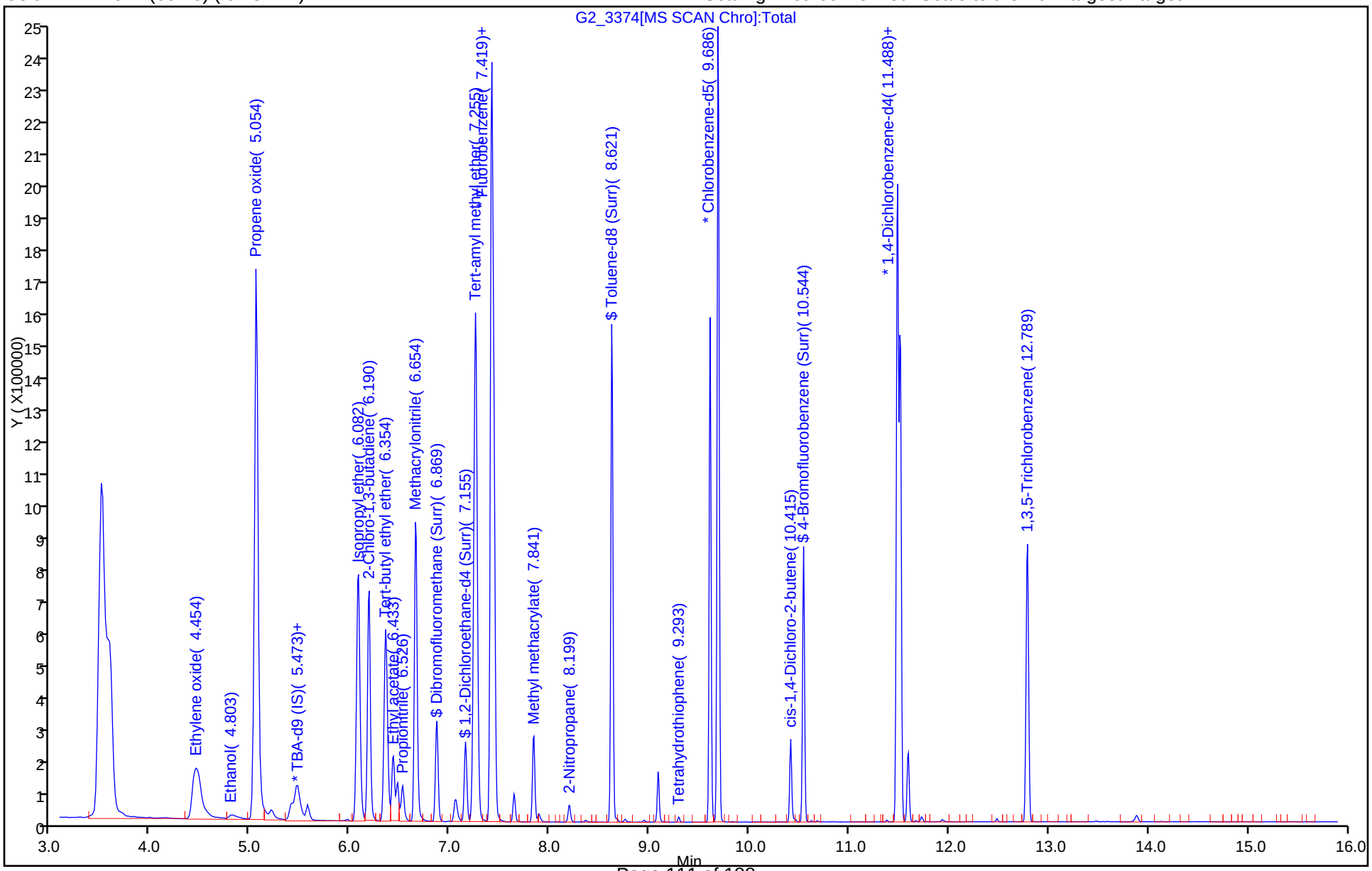
Report Date: 13-Apr-2016 05:42:13 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3374.D

Injection Date:	12-Apr-2016 13:51:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	20
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3375.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 12-Apr-2016 14:10:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:35

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	5.473	5.473	0.000	0	168192	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1661633	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	334145	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	453484	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	366689	10.0	10.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	314796	10.0	10.7	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1679804	10.0	11.0	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	501119	10.0	10.9	
18 Ethylene oxide	43	4.454	4.454	0.000	100	304809	400.0	476.8	
23 Ethanol	45	4.817	4.817	0.000	99	68099	500.0	503.0	
27 Propene oxide	58	5.054	5.054	0.000	96	3677516	1000.0	1108.2	
30 Isopropyl alcohol	45	5.208	5.208	0.000	98	81749	100.0	101.3	
33 Acetonitrile	41	5.417	5.417	0.000	99	216290	125.0	131.5	
45 Isopropyl ether	87	6.082	6.082	0.000	94	389006	12.5	13.5	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	917185	10.0	10.9	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	1203197	12.5	13.7	
49 Ethyl acetate	43	6.475	6.475	0.000	99	263095	20.0	21.0	
51 Propionitrile	54	6.526	6.526	0.000	99	231258	125.0	132.4	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	927346	100.0	109.4	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	97	855179	12.5	13.6	
68 n-Butanol	56	7.434	7.434	0.000	77	118667	250.0	262.0	
71 Methyl methacrylate	100	7.841	7.841	0.000	93	78429	20.0	21.8	
77 2-Nitropropane	41	8.192	8.192	0.000	98	63728	20.0	21.5	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	92	10670	20.0	19.2	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	34	111768	20.0	21.6	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	1633970	10.0	10.9	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	654745	10.0	10.6	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL
MV-Supp A_00018	Amount Added:	5.00	Units: uL

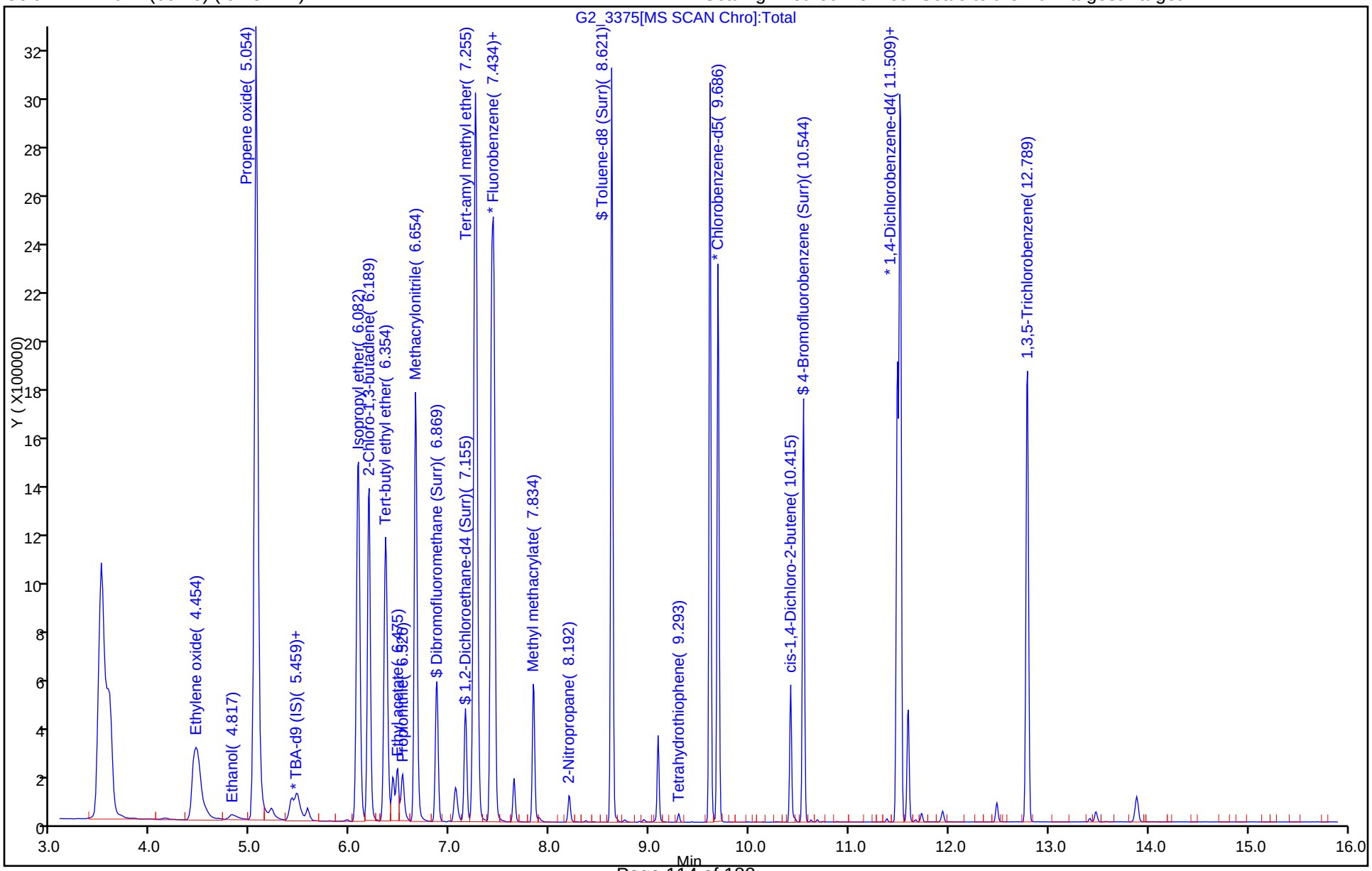
Report Date: 13-Apr-2016 05:42:14 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3375.D

Injection Date:	12-Apr-2016 14:10:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icis			Worklist Smp#:	21
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3376.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2016 14:29:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:59

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	5.473	5.473	0.000	0	197080	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1907941	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	378429	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	530960	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	1141354	30.0	28.8	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	969139	30.0	28.8	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	5201660	30.0	30.2	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	1661381	30.0	30.8	
18 Ethylene oxide	43	4.454	4.454	0.000	100	856114	1200.0	1285.0	
23 Ethanol	45	4.817	4.817	0.000	99	211632	1500.0	1361.3	
27 Propene oxide	58	5.054	5.054	0.000	98	10139154	3000.0	2660.9	
30 Isopropyl alcohol	45	5.208	5.208	0.000	99	259060	300.0	279.6	
33 Acetonitrile	41	5.417	5.417	0.000	100	655244	375.0	347.0	
45 Isopropyl ether	87	6.082	6.082	0.000	94	1248981	37.5	37.8	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	2839657	30.0	29.5	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	3817221	37.5	37.8	
49 Ethyl acetate	43	6.476	6.475	0.001	99	816587	60.0	56.7	
51 Propionitrile	54	6.526	6.526	0.000	99	726077	375.0	362.0	
55 Methacrylonitrile	41	6.654	6.654	0.000	92	2834422	300.0	291.2	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	2823346	37.5	39.2	
68 n-Butanol	56	7.434	7.434	0.000	82	365899	750.0	732.2	
71 Methyl methacrylate	100	7.834	7.841	-0.007	93	272646	60.0	66.1	
77 2-Nitropropane	41	8.192	8.192	0.000	99	214201	60.0	63.0	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	94	42620	60.0	53.6	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	94	383836	60.0	63.5	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	5353410	30.0	30.4	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	2255342	30.0	31.3	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	2.40	Units: uL
MV-Supp A_00018	Amount Added:	15.00	Units: uL

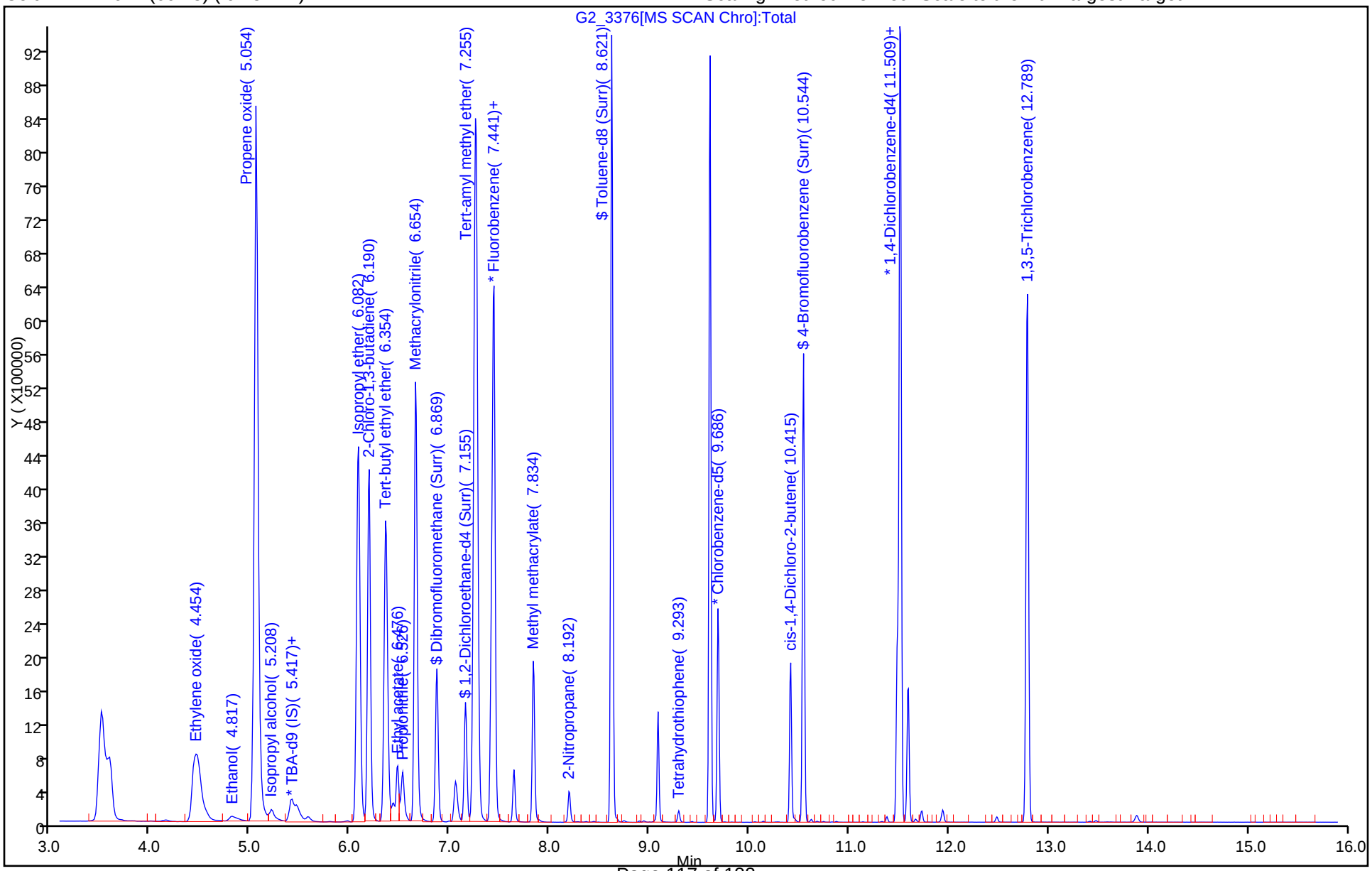
Report Date: 13-Apr-2016 05:42:15 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3376.D

Injection Date:	12-Apr-2016 14:29:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	22
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2016 14:49:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:36:13

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	5.473	5.473	0.000	0	193602	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1877520	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	370104	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	518912	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	94	2338163	60.0	60.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	1955867	60.0	59.0	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	93	9979459	60.0	59.3	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	89	3404686	60.0	64.6	
18 Ethylene oxide	43	4.454	4.454	0.000	100	1497298	2400.0	1750.7	
23 Ethanol	45	4.817	4.817	0.000	100	409867	3000.0	2679.1	
27 Propene oxide	58	5.054	5.054	0.000	97	16844057	6000.0	4277.2	
30 Isopropyl alcohol	45	5.208	5.208	0.000	100	512921	600.0	562.6	
33 Acetonitrile	41	5.403	5.417	-0.014	99	1294515	750.0	696.6	
45 Isopropyl ether	87	6.082	6.082	0.000	94	2559247	75.0	78.7	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	5636416	60.0	59.5	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	7670600	75.0	77.1	
49 Ethyl acetate	43	6.468	6.475	-0.007	99	1652542	120.0	116.6	
51 Propionitrile	54	6.526	6.526	0.000	99	1457189	750.0	738.2	
55 Methacrylonitrile	41	6.654	6.654	0.000	91	5508477	600.0	575.0	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	5740925	75.0	81.0	
68 n-Butanol	56	7.434	7.434	0.000	48	743622	1500.0	1530.3	
71 Methyl methacrylate	100	7.834	7.841	-0.007	92	574893	120.0	141.6	
77 2-Nitropropane	41	8.192	8.192	0.000	99	436832	120.0	130.5	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	93	102086	120.0	123.2	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	93	805383	120.0	136.3	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	10383381	60.0	60.4	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	98	4590845	60.0	65.2	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	4.80	Units: uL
MV-Supp A_00018	Amount Added:	30.00	Units: uL

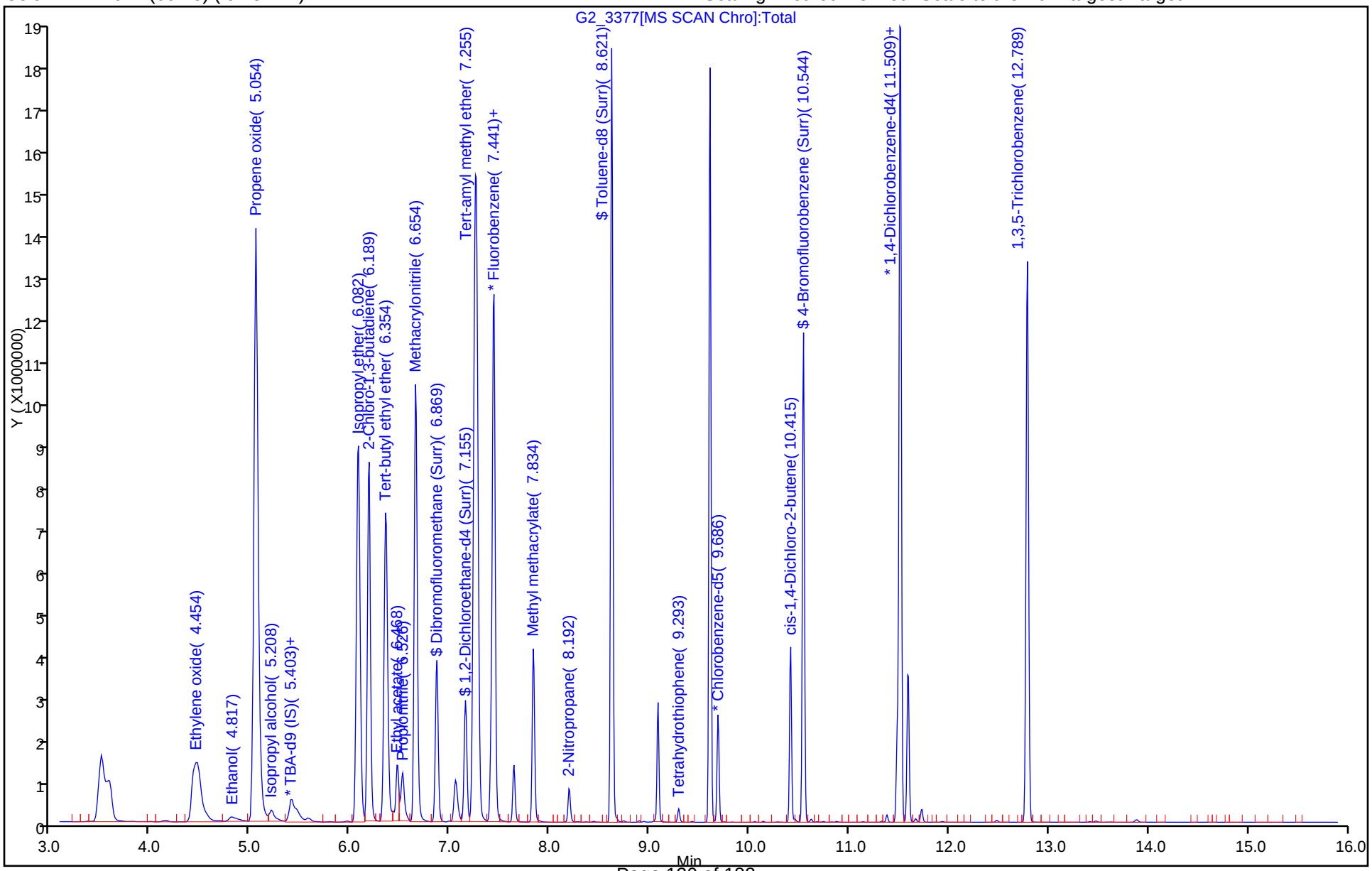
Report Date: 13-Apr-2016 05:42:16 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Injection Date:	12-Apr-2016 14:49:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Lab Sample ID: ICV 280-320302/24 Calibration Date: 04/12/2016 15:08

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 12:48

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 14:49

Lab File ID: G2_3378.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	0.0010	0.0008		393	500	-21.5	50.0
Isopropyl alcohol	Ave	0.0061	0.0059		97.2	100	-2.8	50.0
Acetonitrile	Ave	0.0124	0.0096		96.5	125	-22.8	50.0
Isopropyl ether	Ave	0.2164	0.1783		10.3	12.5	-17.6	20.0
Chloroprene	Ave	0.6303	0.6259		9.93	10.0	-0.7	20.0
Ethyl tert-Butyl Ether (ETBE)	Ave	0.6625	0.5214		9.84	12.5	-21.3	35.0
Ethyl acetate	Ave	0.0943	0.0925		19.6	20.0	-1.9	50.0
Propionitrile	Ave	0.0131	0.0105		100	125	-19.9	20.0
Methacrylonitrile	Ave	0.0638	0.0660		103	100	3.4	50.0
Tert-amyl methyl ether	Ave	0.4719	0.3858		10.2	12.5	-18.2	35.0
Methyl methacrylate	Ave	0.0270	0.0280		20.7	20.0	3.4	20.0
2-Nitropropane	Ave	0.0223	0.0213		19.1	20.0	-4.3	50.0
cis-1,4-Dichloro-2-butene	Ave	0.1423	0.1353		19.0	20.0	-4.9	50.0
Dibromofluoromethane (Surr)	Ave	0.2594	0.2608		10.1	10.0	0.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2207	0.2246		10.2	10.0	1.7	20.0
Toluene-d8 (Surr)	Ave	5.687	5.633		9.90	10.0	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.269	1.238		9.76	10.0	-2.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3378.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2016 15:08:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

	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	5.473	5.473	0.000	0	205457	250.0	250.0	
*	2 Fluorobenzene	96	7.419	7.419	0.000	98	1825595	12.5	12.5	
*	3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	372912	12.5	12.5	
*	4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	508022	12.5	12.5	
$	6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	380885	10.0	10.1	
$	7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	327975	10.0	10.2	
$	8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1680365	10.0	9.90	
$	9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	503335	10.0	9.76	
	18 Ethylene oxide	43	4.468	4.454	0.014	100	315259	400.0	444.1	
	23 Ethanol	45	4.817	4.817	0.000	99	58403	500.0	392.6	
	27 Propene oxide	58	5.068	5.054	0.014	96	3628900	1000.0	995.3	
	30 Isopropyl alcohol	45	5.222	5.208	0.014	99	86191	100.0	97.2	
	33 Acetonitrile	41	5.417	5.417	0.000	99	174338	125.0	96.5	
	45 Isopropyl ether	87	6.082	6.082	0.000	94	325555	12.5	10.3	
	47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	914153	10.0	9.93	
	48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	98	951878	12.5	9.84	
	49 Ethyl acetate	43	6.476	6.475	0.001	99	270257	20.0	19.6	
	51 Propionitrile	54	6.526	6.526	0.000	99	192236	125.0	100.2	
	55 Methacrylonitrile	41	6.654	6.654	0.000	93	963353	100.0	103.4	
	65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	704256	12.5	10.2	
	68 n-Butanol	56	7.434	7.434	0.000	89	94579	250.0	185.4	
	71 Methyl methacrylate	100	7.841	7.841	0.000	93	81656	20.0	20.7	
	77 2-Nitropropane	41	8.192	8.192	0.000	99	62296	20.0	19.1	
	89 Tetrahydrothiophene	60	9.293	9.293	0.000	90	12816	20.0	20.2	
	100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	93	109959	20.0	19.0	
	115 1,2,3-Trimethylbenzene	105	11.517	11.516	0.001	98	1560766	10.0	9.27	
	120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	621915	10.0	9.02	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL
MV-Supp A_00018	Amount Added:	5.00	Units: uL

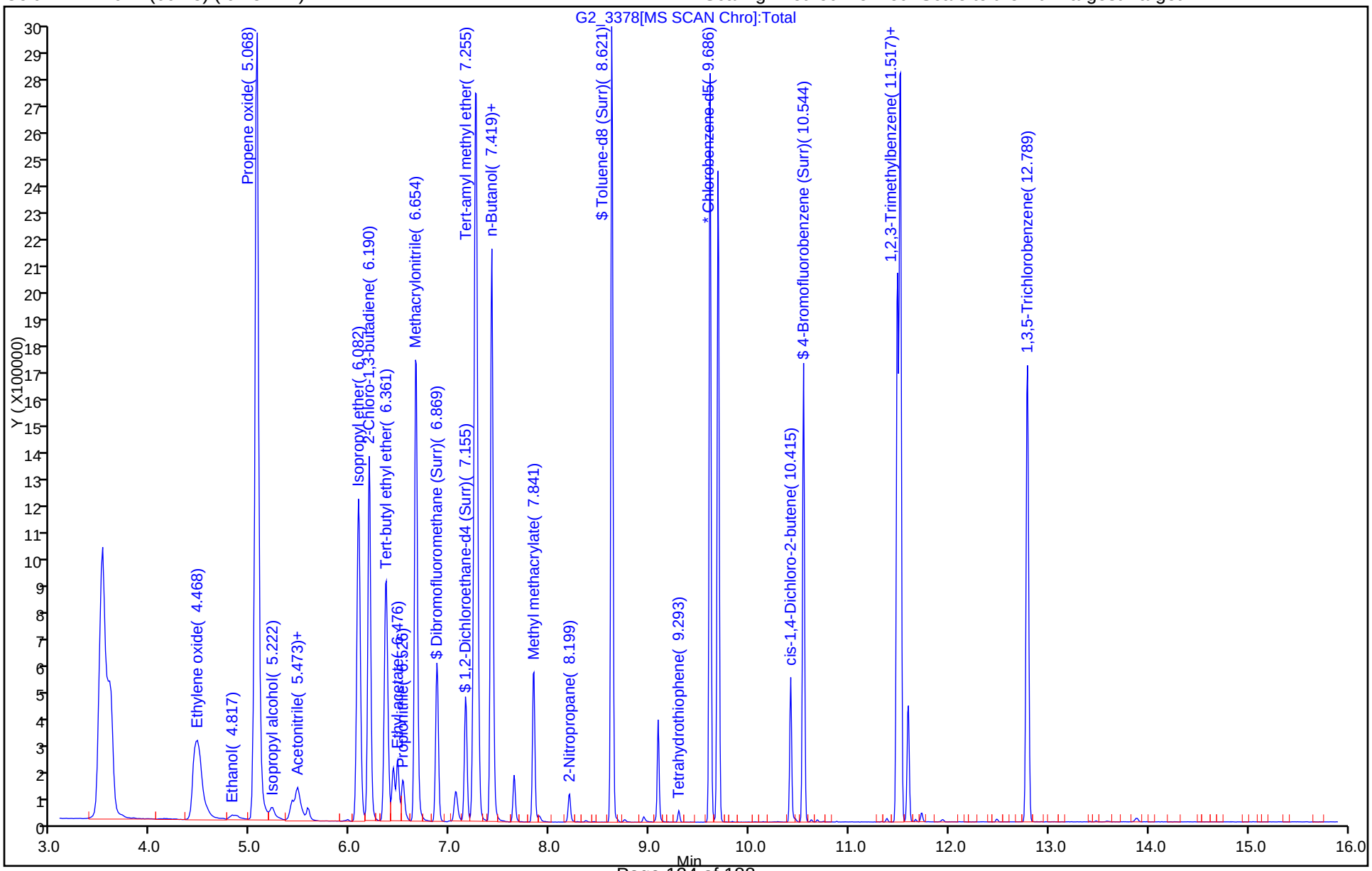
Report Date: 13-Apr-2016 05:42:16 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3378.D

Injection Date:	12-Apr-2016 15:08:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	0.4143	0.4292		10.4	10.0	3.6	20.0
Chloromethane	Ave	0.4641	0.4329	0.1000	9.33	10.0	-6.7	20.0
Vinyl chloride	Ave	0.4578	0.4450		9.72	10.0	-2.8	20.0
Bromomethane	Lin		0.2760		10.5	10.0	5.2	20.0
Chloroethane	Lin		0.2730		10.5	10.0	5.3	20.0
Dichlorofluoromethane	Ave	0.7905	0.7441		9.64	10.0	-5.9	50.0
Trichlorofluoromethane	Ave	0.5971	0.5848		9.79	10.0	-2.1	20.0
Ethyl ether	Ave	0.1624	0.1579		9.73	10.0	-2.7	20.0
Acrolein	Ave	0.0145	0.0094		64.9	100	-35.1	50.0
Acetone	Lin1		0.0279		42.6	40.0	6.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2954	0.2637		8.93	10.0	-10.7	20.0
1,1-Dichloroethene	Ave	0.3599	0.3384		9.40	10.0	-6.0	20.0
Iodomethane	Ave	0.5042	0.4969		9.85	10.0	-1.5	20.0
Methyl acetate	Ave	0.0792	0.0722		45.6	50.0	-8.8	50.0
Allyl chloride	Ave	0.6482	0.6484		10.0	10.0	0.0	20.0
Carbon disulfide	Ave	1.655	1.451		8.76	10.0	-12.4	20.0
t-Butyl alcohol	Ave	0.0088	0.0090		102	100	2.3	50.0
Methylene Chloride	Lin2		0.3176		9.54	10.0	-4.6	20.0
Acrylonitrile	Ave	0.0386	0.0374		96.8	100	-3.2	50.0
Methyl tert-butyl ether	Ave	0.4618	0.4756		10.3	10.0	3.0	20.0
trans-1,2-Dichloroethene	Ave	0.3857	0.3827		9.92	10.0	-0.8	20.0
Hexane	Ave	3.363	3.232		9.61	10.0	-3.9	20.0
Vinyl acetate	Ave	0.2632	0.2500		19.0	20.0	-5.0	50.0
1,1-Dichloroethane	Ave	0.6674	0.6318	0.1000	9.47	10.0	-5.3	20.0
2-Butanone (MEK)	Ave	0.0489	0.0500		40.9	40.0	2.3	20.0
2-Butanol	Lin2		0.0062		281	300	-6.5	50.0
cis-1,2-Dichloroethene	Ave	0.3426	0.3507		10.2	10.0	2.4	20.0
2,2-Dichloropropane	Ave	0.5287	0.5066		9.58	10.0	-4.2	20.0
Chlorobromomethane	Ave	0.1116	0.1094		9.80	10.0	-2.0	20.0
Chloroform	Ave	0.5608	0.5526		9.85	10.0	-1.5	20.0
Tetrahydrofuran	Ave	0.0258	0.0255		19.8	20.0	-1.1	50.0
Isobutyl alcohol	Ave	0.0029	0.0027		236	250	-5.5	50.0
1,1,1-Trichloroethane	Ave	0.5541	0.5352		9.66	10.0	-3.4	20.0
Cyclohexane	Ave	0.7291	0.7334		10.1	10.0	0.6	20.0
1,1-Dichloropropene	Ave	0.5362	0.5331		9.94	10.0	-0.6	20.0
Carbon tetrachloride	Ave	0.4819	0.4735		9.83	10.0	-1.7	20.0
1,2-Dichloroethane	Ave	0.2770	0.2682		9.68	10.0	-3.2	20.0
Benzene	Ave	1.403	1.411		10.1	10.0	0.6	20.0
Trichloroethene	Ave	0.3508	0.3581		10.2	10.0	2.1	20.0
2-Pentanone	Lin		0.0659		38.1	40.0	-4.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	0.3082	0.3109		10.1	10.0	0.9	20.0
Methylcyclohexane	Ave	0.6093	0.6090		10.0	10.0	-0.0	20.0
1,4-Dioxane	Lin2		0.0009		196	200	-2.0	50.0
Dibromomethane	Ave	0.1060	0.1018		9.60	10.0	-4.0	20.0
Dichlorobromomethane	Ave	0.3345	0.3357		10.0	10.0	0.3	20.0
2-Chloroethyl vinyl ether	Lin		0.0478		11.2	10.0	12.1	50.0
cis-1,3-Dichloropropene	Ave	1.752	1.917		10.9	10.0	9.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0895	0.0920		41.1	40.0	2.8	20.0
Toluene	Ave	1.359	1.453		10.7	10.0	6.9	20.0
Ethyl methacrylate	Lin1		0.8042		9.88	10.0	-1.2	20.0
trans-1,3-Dichloropropene	Ave	0.2804	0.2845		10.1	10.0	1.5	20.0
1,1,2-Trichloroethane	Ave	0.1468	0.1415		9.64	10.0	-3.6	20.0
2-Hexanone	Ave	0.2789	0.2902		41.6	40.0	4.0	20.0
1,3-Dichloropropane	Ave	1.324	1.336		10.1	10.0	0.8	20.0
Tetrachloroethene	Ave	1.461	1.469		10.1	10.0	0.5	20.0
Chlorodibromomethane	Ave	0.8148	0.8193		10.1	10.0	0.5	20.0
Ethylene Dibromide	Ave	0.6121	0.6247		10.2	10.0	2.1	20.0
1-Chlorohexane	Lin1		2.682		10.6	10.0	6.0	20.0
Chlorobenzene	Ave	4.130	4.114	0.3000	9.96	10.0	-0.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.248	1.279		10.2	10.0	2.4	20.0
Ethylbenzene	Ave	2.547	2.664		10.5	10.0	4.6	20.0
m-Xylene & p-Xylene	Ave	3.029	3.211		10.6	10.0	6.0	20.0
o-Xylene	Ave	2.810	2.976		10.6	10.0	5.9	20.0
Styrene	Ave	3.978	4.352		10.9	10.0	9.4	20.0
Bromoform	Ave	0.3556	0.3785	0.1000	10.6	10.0	6.4	20.0
Isopropylbenzene	Ave	4.949	5.590		11.3	10.0	13.0	20.0
Cyclohexanone	Lin1		0.0136		386	400	-3.4	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4914	0.4860	0.3000	9.89	10.0	-1.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1316	0.1334		10.1	10.0	1.3	50.0
1,2,3-Trichloropropane	Ave	0.1279	0.1296		10.1	10.0	1.3	20.0
Bromobenzene	Ave	0.9736	0.999		10.3	10.0	2.6	20.0
N-Propylbenzene	Ave	1.462	1.581		10.8	10.0	8.1	20.0
1,3,5-Trimethylbenzene	Ave	4.121	4.472		10.9	10.0	8.5	20.0
2-Chlorotoluene	Ave	1.176	1.219		10.4	10.0	3.6	20.0
4-Chlorotoluene	Ave	1.134	1.178		10.4	10.0	3.9	20.0
tert-Butylbenzene	Ave	4.138	4.564		11.0	10.0	10.3	20.0
1,2,4-Trimethylbenzene	Ave	4.187	4.384		10.5	10.0	4.7	20.0
sec-Butylbenzene	Ave	1.171	1.262		10.8	10.0	7.8	20.0
4-Isopropyltoluene	Ave	4.729	5.202		11.0	10.0	10.0	20.0
1,3-Dichlorobenzene	Ave	2.122	2.123		10.0	10.0	0.0	20.0
1,4-Dichlorobenzene	Ave	2.070	2.070		10.0	10.0	-0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	4.683	5.051		10.8	10.0	7.9	20.0
1,2-Dichlorobenzene	Ave	1.663	1.687		10.1	10.0	1.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0589	0.0639		10.8	10.0	8.4	20.0
1,2,4-Trichlorobenzene	Ave	1.019	1.150		11.3	10.0	12.8	20.0
Hexachlorobutadiene	Ave	0.8762	0.9229		10.6	10.0	5.3	20.0
Naphthalene	Lin1		1.251		10.2	10.0	1.6	20.0
1,2,3-Trichlorobenzene	Ave	0.7730	0.8103		10.5	10.0	4.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3379.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2016 15:28:30 ALS Bottle#: 25 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:10 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

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	5.473	5.473	0.000	0	200952	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1748823	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	355573	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	532633	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	600450	10.0	10.4	
14 Chloromethane	50	4.007	4.007	0.000	99	605638	10.0	9.33	
16 Vinyl chloride	62	4.160	4.160	0.000	98	622580	10.0	9.72	
19 Bromomethane	94	4.509	4.510	-0.001	90	386157	10.0	10.5	
20 Chloroethane	64	4.565	4.579	-0.014	100	381869	10.0	10.5	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	1040964	10.0	9.64	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	818162	10.0	9.79	
25 Ethyl ether	59	4.970	4.971	-0.001	93	220965	10.0	9.73	
28 Acrolein	56	5.096	5.096	0.000	100	131722	100.0	64.9	
29 Acetone	43	5.194	5.194	0.000	100	156306	40.0	42.6	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	368872	10.0	8.93	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	97	473381	10.0	9.40	
34 Iodomethane	142	5.403	5.403	0.000	98	695122	10.0	9.85	
35 Methyl acetate	43	5.431	5.431	0.000	98	504954	50.0	45.6	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	907191	10.0	10.0	
37 Carbon disulfide	76	5.501	5.501	0.000	99	2029579	10.0	8.76	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	125830	100.0	102.3	
39 Methylene Chloride	84	5.571	5.571	0.000	94	444272	10.0	9.54	
40 Acrylonitrile	53	5.711	5.711	0.000	99	522479	100.0	96.8	
41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	96	665430	10.0	10.3	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	97	535405	10.0	9.92	
43 Hexane	57	5.976	5.976	0.000	92	919483	10.0	9.61	
44 Vinyl acetate	43	6.046	6.054	-0.008	97	699439	20.0	19.0	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	883945	10.0	9.47	
50 2-Butanone (MEK)	43	6.475	6.476	-0.001	100	279550	40.0	40.9	
52 sec-Butyl Alcohol	45	6.525	6.526	-0.001	94	258481	300.0	280.6	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	490666	10.0	10.2	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	708779	10.0	9.58	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
56 Chlorobromomethane	128	6.733	6.733	0.000	92	153061	10.0	9.80	
57 Chloroform	83	6.740	6.747	-0.007	94	773147	10.0	9.85	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	71347	20.0	19.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	93	95841	250.0	236.3	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	748760	10.0	9.66	
61 Cyclohexane	56	7.047	7.048	-0.001	92	1026054	10.0	10.1	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	96	745850	10.0	9.94	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	662420	10.0	9.83	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	375280	10.0	9.68	
66 Benzene	78	7.248	7.248	0.000	96	1974476	10.0	10.1	
67 n-Heptane	43	7.341	7.341	0.000	92	951111	10.0	10.3	
69 Trichloroethene	95	7.705	7.705	0.000	99	501058	10.0	10.2	
70 2-Pentanone	43	7.734	7.734	0.000	99	368525	40.0	38.1	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	95	434949	10.0	10.1	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	852015	10.0	10.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	97	24530	200.0	196.0	
75 Dibromomethane	93	7.984	7.991	-0.007	97	142387	10.0	9.60	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	469599	10.0	10.0	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	66924	10.0	11.2	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	545332	10.0	10.9	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	97	514835	40.0	41.1	
81 Toluene	91	8.671	8.671	0.000	98	2032502	10.0	10.7	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	92	228756	10.0	9.88	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	97	398067	10.0	10.1	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	198011	10.0	9.64	
85 2-Hexanone	43	9.035	9.035	0.000	95	330213	40.0	41.6	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	379933	10.0	10.1	
87 Tetrachloroethene	164	9.092	9.093	-0.001	98	417735	10.0	10.1	
88 Chlorodibromomethane	129	9.250	9.250	0.000	90	233045	10.0	10.1	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	177705	10.0	10.2	
91 1-Chlorohexane	91	9.607	9.607	0.000	97	762945	10.0	10.6	
92 Chlorobenzene	112	9.714	9.715	-0.001	93	1170234	10.0	9.96	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	95	363716	10.0	10.2	
94 Ethylbenzene	106	9.750	9.750	0.000	98	757916	10.0	10.5	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	913426	10.0	10.6	
96 Styrene	104	10.136	10.137	-0.001	87	1238043	10.0	10.9	
97 o-Xylene	106	10.136	10.144	-0.008	88	846523	10.0	10.6	
98 Bromoform	173	10.329	10.330	-0.001	96	107678	10.0	10.6	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2382133	10.0	11.3	
101 Cyclohexanone	55	10.508	10.508	0.000	94	154440	400.0	386.5	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	207105	10.0	9.89	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	56844	10.0	10.1	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	55235	10.0	10.1	
105 Bromobenzene	156	10.708	10.709	-0.001	97	425775	10.0	10.3	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	673772	10.0	10.8	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1905687	10.0	10.9	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	519358	10.0	10.4	
109 4-Chlorotoluene	126	10.901	10.902	-0.001	99	501800	10.0	10.4	
110 tert-Butylbenzene	119	11.109	11.116	-0.007	94	1944734	10.0	11.0	
111 1,2,4-Trimethylbenzene	105	11.137	11.145	-0.008	98	1867879	10.0	10.5	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	537949	10.0	10.8	
113 4-Isopropyltoluene	119	11.380	11.381	-0.001	97	2216662	10.0	11.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	904456	10.0	10.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	881936	10.0	10.0	
117 n-Butylbenzene	91	11.731	11.738	-0.007	98	2152228	10.0	10.8	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	97	718630	10.0	10.1	
119 1,2-Dibromo-3-Chloropropan	157	12.567	12.568	-0.001	77	27230	10.0	10.8	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	489912	10.0	11.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	97	393234	10.0	10.6	
123 Naphthalene	128	13.833	13.840	-0.007	97	533215	10.0	10.2	
124 1,2,3-Trichlorobenzene	180	14.140	14.148	-0.008	95	345276	10.0	10.5	
S 149 1,2-Dichloroethene, Total	96				0		20.0	20.2	
S 150 Trihalomethanes, Total	1				0		40.0	40.6	
S 151 Xylenes, Total (URS)	1				0		20.0	21.2	
S 153 1,3-Dichloropropene, Total	1				0		20.0	21.1	
S 154 1,2-Dichloroethene, Total	1				0		10.0	20.2	
S 155 Xylenes, Total	106				0		20.0	21.2	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-SS 2-Cleve_00027	Amount Added:	5.00	Units: uL
MV-Main B_00014	Amount Added:	5.00	Units: uL
MV-Gas/Ket B_00026	Amount Added:	5.00	Units: uL

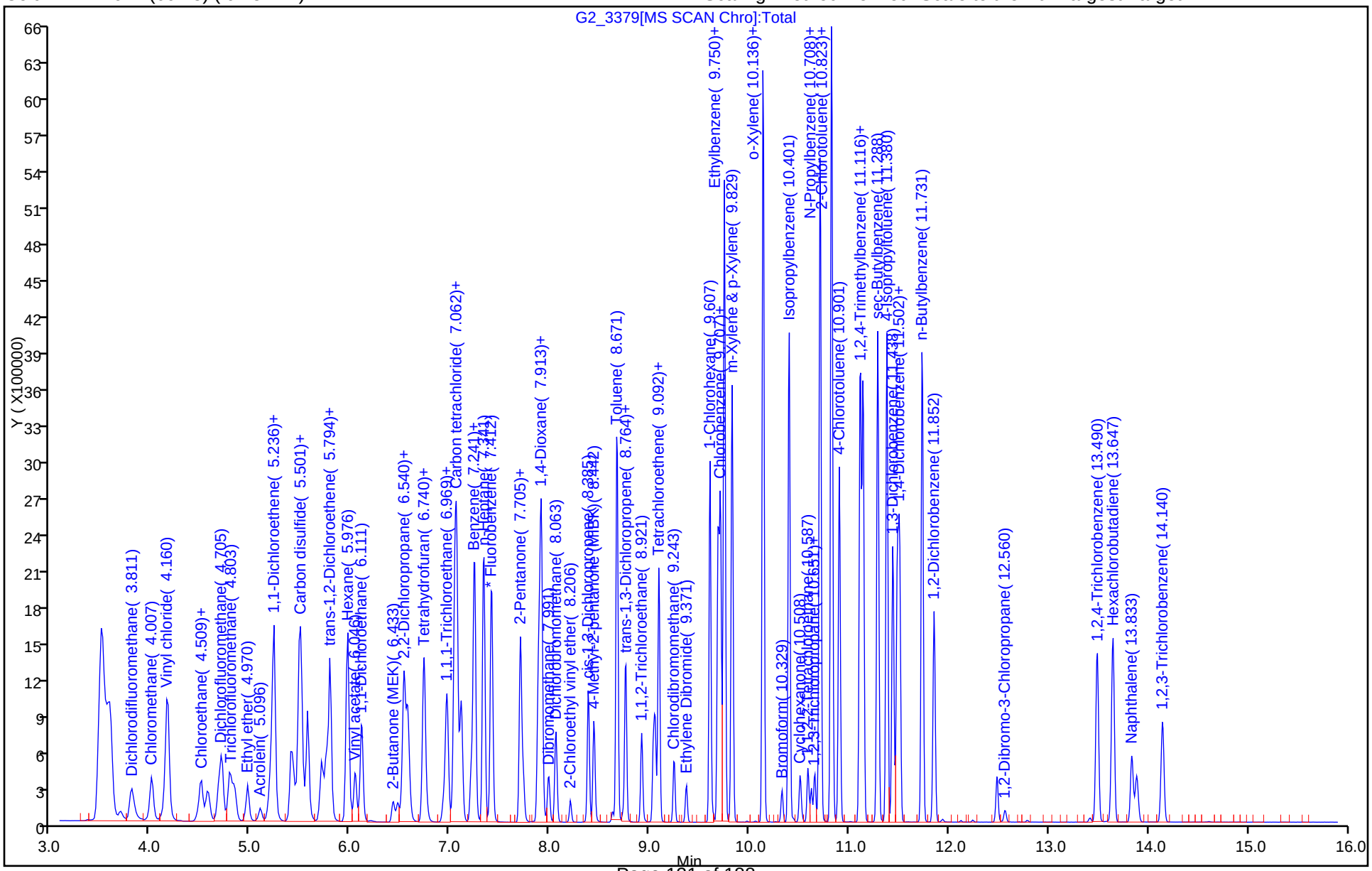
Report Date: 13-Apr-2016 05:42:11 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3379.D

Injection Date:	12-Apr-2016 15:28:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icv			Worklist Smp#:	17
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Lab Sample ID: CCV 280-320864/2 Calibration Date: 04/14/2016 18:06

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 12:48

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 14:49

Lab File ID: G2_3449.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
Dibromofluoromethane (Surr)	Ave	0.2594	0.2672		10.3	10.0	3.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2207	0.2391		10.8	10.0	8.3	20.0
Toluene-d8 (Surr)	Ave	5.687	5.992		10.5	10.0	5.4	20.0
4-Bromofluorobenzene (Surr)	Ave	1.269	1.257		9.91	10.0	-0.9	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3449.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 14-Apr-2016 18:06:30 ALS Bottle#: 10 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: DUKESA Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:11 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 18:56:53

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	5.473	5.473	0.000	0	182077	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1779973	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.693	0.000	85	367539	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	81	552849	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	57	380441	10.0	10.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	90	340404	10.0	10.8	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1761865	10.0	10.5	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	84	556162	10.0	9.91	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	98	571899	10.0	9.69	
14 Chloromethane	50	4.007	4.007	0.000	88	659621	10.0	9.98	
16 Vinyl chloride	62	4.160	4.160	0.000	98	639482	10.0	9.81	
19 Bromomethane	94	4.496	4.496	0.000	87	408235	10.0	11.0	
20 Chloroethane	64	4.565	4.565	0.000	99	419563	10.0	11.5	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	79	1073714	10.0	9.77	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	93	808290	10.0	9.51	
25 Ethyl ether	59	4.970	4.970	0.000	92	214416	10.0	9.27	
28 Acrolein	56	5.096	5.096	0.000	97	210273	100.0	101.9	
29 Acetone	43	5.194	5.194	0.000	81	168675	40.0	45.4	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	81	370346	10.0	8.80	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	460049	10.0	8.98	
34 Iodomethane	142	5.403	5.403	0.000	98	636749	10.0	8.87	
35 Methyl acetate	43	5.431	5.431	0.000	90	510189	50.0	45.2	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	66	859917	10.0	9.32	
37 Carbon disulfide	76	5.501	5.501	0.000	98	2125581	10.0	9.02	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	1	118993	100.0	95.1	
39 Methylene Chloride	84	5.571	5.571	0.000	83	460276	10.0	9.73	
40 Acrylonitrile	53	5.711	5.711	0.000	98	514140	100.0	93.6	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	90	618646	10.0	9.41	
42 trans-1,2-Dichloroethene	96	5.794	5.794	0.000	92	508336	10.0	9.26	
43 Hexane	57	5.976	5.976	0.000	93	912584	10.0	9.23	
44 Vinyl acetate	43	6.047	6.047	0.000	87	760567	20.0	20.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 1,1-Dichloroethane	63	6.111	6.111	0.000	85	898520	10.0	9.45	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	262345	40.0	37.7	
52 sec-Butyl Alcohol	45	6.518	6.518	0.000	15	118409	150.0	129.2	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	70	460676	10.0	9.44	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	92	739076	10.0	9.82	
56 Chlorobromomethane	128	6.733	6.733	0.000	60	143259	10.0	9.01	
57 Chloroform	83	6.740	6.740	0.000	81	749992	10.0	9.39	
58 Tetrahydrofuran	42	6.769	6.769	0.000	86	68974	20.0	18.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	90	96039	250.0	232.6	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	88	731337	10.0	9.27	
61 Cyclohexane	56	7.048	7.048	0.000	87	1004707	10.0	9.68	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	89	724886	10.0	9.49	
63 Carbon tetrachloride	117	7.112	7.112	0.000	56	628397	10.0	9.16	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	78	375330	10.0	9.52	
66 Benzene	78	7.248	7.248	0.000	96	1926753	10.0	9.64	
67 n-Heptane	43	7.341	7.341	0.000	92	934718	10.0	9.92	
69 Trichloroethene	95	7.705	7.705	0.000	93	465699	10.0	9.32	
70 2-Pentanone	43	7.734	7.734	0.000	98	328916	20.0	33.1	
72 1,2-Dichloropropane	63	7.891	7.891	0.000	87	414184	10.0	9.44	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	834504	10.0	9.62	
74 1,4-Dioxane	88	7.934	7.934	0.000	22	22707	200.0	178.9	
75 Dibromomethane	93	7.991	7.991	0.000	86	137011	10.0	9.07	
76 Dichlorobromomethane	83	8.063	8.063	0.000	93	453798	10.0	9.53	
78 2-Chloroethyl vinyl ether	63	8.213	8.213	0.000	90	40840	10.0	7.54	
79 cis-1,3-Dichloropropene	75	8.392	8.392	0.000	88	504220	10.0	9.79	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	81	518718	40.0	40.7	
81 Toluene	91	8.678	8.678	0.000	90	1983826	10.0	10.3	
82 Ethyl methacrylate	69	8.764	8.764	0.000	58	205784	10.0	8.66	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	93	390230	10.0	9.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	87	190041	10.0	9.09	
85 2-Hexanone	43	9.042	9.042	0.000	89	331295	40.0	40.4	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	95	371653	10.0	9.54	
87 Tetrachloroethene	164	9.093	9.093	0.000	89	388085	10.0	9.04	
88 Chlorodibromomethane	129	9.250	9.250	0.000	88	217622	10.0	9.08	
90 Ethylene Dibromide	107	9.371	9.371	0.000	96	161437	10.0	8.97	
91 1-Chlorohexane	91	9.607	9.607	0.000	91	319485	5.00	4.45	
92 Chlorobenzene	112	9.715	9.715	0.000	91	1124874	10.0	9.26	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.750	0.000	28	343598	10.0	9.36	
94 Ethylbenzene	106	9.758	9.758	0.000	70	717589	10.0	9.58	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	866671	10.0	9.73	
96 Styrene	104	10.144	10.144	0.000	86	1194477	10.0	10.2	
97 o-Xylene	106	10.144	10.144	0.000	88	819904	10.0	9.92	
98 Bromoform	173	10.330	10.330	0.000	93	93335	10.0	8.93	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2216451	10.0	10.1	
101 Cyclohexanone	55	10.515	10.515	0.000	87	145665	400.0	354.1	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.594	0.000	61	198371	10.0	9.13	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	36	49049	10.0	8.42	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	14	50419	10.0	8.91	
105 Bromobenzene	156	10.708	10.708	0.000	56	403601	10.0	9.37	
106 N-Propylbenzene	120	10.716	10.716	0.000	96	636752	10.0	9.85	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	92	1838452	10.0	10.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	92	495954	10.0	9.53	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Chlorotoluene	126	10.909	10.909	0.000	98	483078	10.0	9.63	
110 tert-Butylbenzene	119	11.116	11.116	0.000	92	1831329	10.0	10.0	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	1829190	10.0	9.88	
112 sec-Butylbenzene	134	11.295	11.295	0.000	95	502444	10.0	9.70	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	89	2105064	10.0	10.1	
114 1,3-Dichlorobenzene	146	11.445	11.445	0.000	83	874177	10.0	9.31	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	848776	10.0	9.27	
117 n-Butylbenzene	91	11.738	11.738	0.000	95	2089887	10.0	10.1	
118 1,2-Dichlorobenzene	146	11.860	11.860	0.000	95	682813	10.0	9.28	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	54	22645	10.0	8.69	
121 1,2,4-Trichlorobenzene	180	13.497	13.497	0.000	93	440996	10.0	9.79	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	96	360174	10.0	9.32	
123 Naphthalene	128	13.840	13.840	0.000	96	451564	10.0	8.39	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	93	316370	10.0	9.25	
S 149 1,2-Dichloroethene, Total	96				0		20.0	18.7	
S 150 Trihalomethanes, Total	1				0		40.0	36.9	
S 151 Xylenes, Total (URS)	1				0		20.0	19.7	
S 153 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 154 1,2-Dichloroethene, Total	1				0		20.0	18.7	
S 155 Xylenes, Total	106				0		20.0	19.7	

Reagents:

MV-2cleve+AVA_00015	Amount Added:	5.00	Units: uL		
MV-567649-D_00001	Amount Added:	1.00	Units: uL		
MV-Main A_00026	Amount Added:	5.00	Units: uL		
MV-Gas/Ket A_00044	Amount Added:	5.00	Units: uL		
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent	

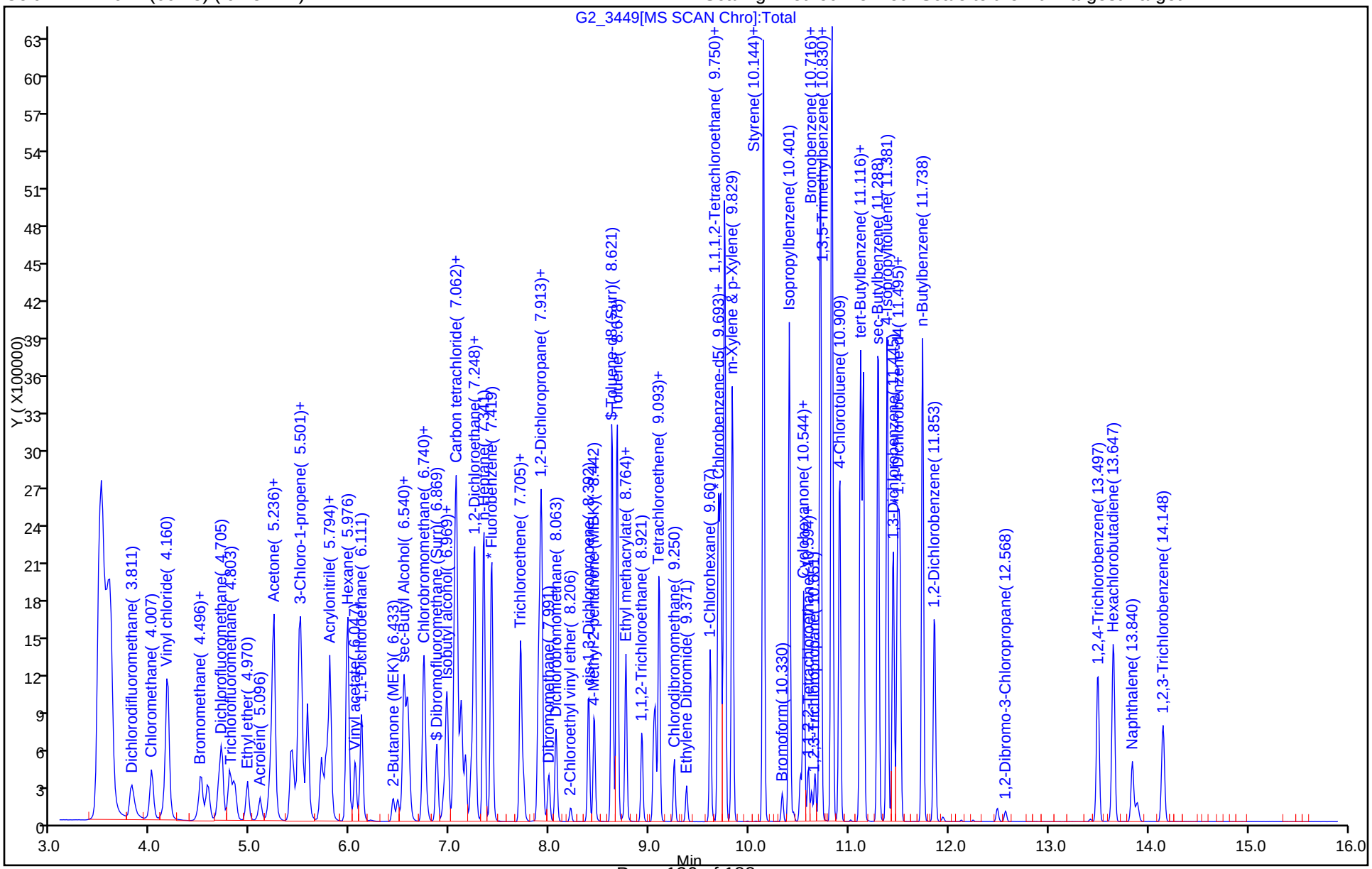
Report Date: 15-Apr-2016 16:15:12 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3449.D

Injection Date:	14-Apr-2016 18:06:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Lab Sample ID: CCV 280-320864/2 Calibration Date: 04/14/2016 18:06

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3449.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	0.4143	0.4016		9.69	10.0	-3.1	20.0
Chloromethane	Ave	0.4641	0.4632	0.1000	9.98	10.0	-0.2	20.0
Vinyl chloride	Ave	0.4578	0.4491		9.81	10.0	-1.9	20.0
Bromomethane	Lin		0.2867		11.0	10.0	10.0	20.0
Chloroethane	Lin		0.2946		11.5	10.0	15.1	20.0
Dichlorofluoromethane	Ave	0.7905	0.7540		9.77	10.0	-4.6	50.0
Trichlorofluoromethane	Ave	0.5971	0.5676		9.51	10.0	-4.9	20.0
Ethyl ether	Ave	0.1624	0.1506		9.27	10.0	-7.3	20.0
Acrolein	Ave	0.0145	0.0148		102	100	1.9	50.0
Acetone	Lin1		0.0296		45.4	40.0	13.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2954	0.2601		8.80	10.0	-12.0	50.0
1,1-Dichloroethene	Ave	0.3599	0.3231		8.98	10.0	-10.2	20.0
Iodomethane	Ave	0.5042	0.4472		8.87	10.0	-11.3	20.0
Methyl acetate	Ave	0.0792	0.0717		45.2	50.0	-9.5	50.0
Allyl chloride	Ave	0.6482	0.6039		9.32	10.0	-6.8	20.0
Carbon disulfide	Ave	1.655	1.493		9.02	10.0	-9.8	20.0
t-Butyl alcohol	Ave	0.0088	0.0084		95.1	100	-4.9	50.0
Methylene Chloride	Lin2		0.3232		9.73	10.0	-2.7	20.0
Acrylonitrile	Ave	0.0386	0.0361		93.6	100	-6.4	50.0
Methyl tert-butyl ether	Ave	0.4618	0.4345		9.41	10.0	-5.9	20.0
trans-1,2-Dichloroethene	Ave	0.3857	0.3570		9.26	10.0	-7.4	20.0
Hexane	Ave	3.363	3.104		9.23	10.0	-7.7	20.0
Vinyl acetate	Ave	0.2632	0.2671		20.3	20.0	1.5	50.0
1,1-Dichloroethane	Ave	0.6674	0.6310	0.1000	9.45	10.0	-5.5	20.0
2-Butanone (MEK)	Ave	0.0489	0.0461		37.7	40.0	-5.7	20.0
2-Butanol	Lin2		0.0055		129	150	-13.8	50.0
cis-1,2-Dichloroethene	Ave	0.3426	0.3235		9.44	10.0	-5.6	20.0
2,2-Dichloropropane	Ave	0.5287	0.5190		9.82	10.0	-1.8	20.0
Chlorobromomethane	Ave	0.1116	0.1006		9.01	10.0	-9.9	20.0
Chloroform	Ave	0.5608	0.5267		9.39	10.0	-6.1	20.0
Tetrahydrofuran	Ave	0.0258	0.0242		18.8	20.0	-6.1	50.0
Isobutyl alcohol	Ave	0.0029	0.0027		233	250	-6.9	50.0
1,1,1-Trichloroethane	Ave	0.5541	0.5136		9.27	10.0	-7.3	20.0
Cyclohexane	Ave	0.7291	0.7056		9.68	10.0	-3.2	20.0
1,1-Dichloropropene	Ave	0.5362	0.5091		9.49	10.0	-5.1	20.0
Carbon tetrachloride	Ave	0.4819	0.4413		9.16	10.0	-8.4	20.0
1,2-Dichloroethane	Ave	0.2770	0.2636		9.52	10.0	-4.8	20.0
Benzene	Ave	1.403	1.353		9.64	10.0	-3.6	20.0
Trichloroethene	Ave	0.3508	0.3270		9.32	10.0	-6.8	20.0
2-Pentanone	Lin		0.1155		33.1	20.0	65.5*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab Sample ID: CCV 280-320864/2 Calibration Date: 04/14/2016 18:06

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3449.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	0.3082	0.2909		9.44	10.0	-5.6	20.0
Methylcyclohexane	Ave	0.6093	0.5860		9.62	10.0	-3.8	20.0
1,4-Dioxane	Lin2		0.0008		179	200	-10.6	50.0
Dibromomethane	Ave	0.1060	0.0962		9.07	10.0	-9.3	20.0
Dichlorobromomethane	Ave	0.3345	0.3187		9.53	10.0	-4.7	20.0
2-Chloroethyl vinyl ether	Lin		0.0287		7.54	10.0	-24.6	50.0
cis-1,3-Dichloropropene	Ave	1.752	1.715		9.79	10.0	-2.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0895	0.0911		40.7	40.0	1.8	20.0
Toluene	Ave	1.359	1.393		10.3	10.0	2.5	20.0
Ethyl methacrylate	Lin1		0.6999		8.66	10.0	-13.4	20.0
trans-1,3-Dichloropropene	Ave	0.2804	0.2740		9.77	10.0	-2.3	20.0
1,1,2-Trichloroethane	Ave	0.1468	0.1335		9.09	10.0	-9.1	20.0
2-Hexanone	Ave	0.2789	0.2817		40.4	40.0	1.0	20.0
1,3-Dichloropropane	Ave	1.324	1.264		9.54	10.0	-4.6	20.0
Tetrachloroethene	Ave	1.461	1.320		9.04	10.0	-9.6	20.0
Chlorodibromomethane	Ave	0.8148	0.7401		9.08	10.0	-9.2	20.0
Ethylene Dibromide	Ave	0.6121	0.5491		8.97	10.0	-10.3	20.0
1-Chlorohexane	Lin1		2.173		4.45	5.00	-11.1	20.0
Chlorobenzene	Ave	4.130	3.826	0.3000	9.26	10.0	-7.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.248	1.169		9.36	10.0	-6.4	20.0
Ethylbenzene	Ave	2.547	2.441		9.58	10.0	-4.2	20.0
m-Xylene & p-Xylene	Ave	3.029	2.948		9.73	10.0	-2.7	20.0
o-Xylene	Ave	2.810	2.788		9.92	10.0	-0.8	20.0
Styrene	Ave	3.978	4.062		10.2	10.0	2.1	20.0
Bromoform	Ave	0.3556	0.3174	0.1000	8.93	10.0	-10.7	20.0
Isopropylbenzene	Ave	4.949	5.011		10.1	10.0	1.3	20.0
Cyclohexanone	Lin1		0.0124		354	400	-11.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4914	0.4485	0.3000	9.13	10.0	-8.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1316	0.1109		8.42	10.0	-15.8	50.0
1,2,3-Trichloropropane	Ave	0.1279	0.1140		8.91	10.0	-10.9	20.0
Bromobenzene	Ave	0.9736	0.9126		9.37	10.0	-6.3	20.0
N-Propylbenzene	Ave	1.462	1.440		9.85	10.0	-1.5	20.0
1,3,5-Trimethylbenzene	Ave	4.121	4.157		10.1	10.0	0.9	20.0
2-Chlorotoluene	Ave	1.176	1.121		9.53	10.0	-4.7	20.0
4-Chlorotoluene	Ave	1.134	1.092		9.63	10.0	-3.7	20.0
tert-Butylbenzene	Ave	4.138	4.141		10.0	10.0	0.0	20.0
1,2,4-Trimethylbenzene	Ave	4.187	4.136		9.88	10.0	-1.2	20.0
sec-Butylbenzene	Ave	1.171	1.136		9.70	10.0	-3.0	20.0
4-Isopropyltoluene	Ave	4.729	4.760		10.1	10.0	0.6	20.0
1,3-Dichlorobenzene	Ave	2.122	1.977		9.31	10.0	-6.9	20.0
1,4-Dichlorobenzene	Ave	2.070	1.919		9.27	10.0	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Lab Sample ID: CCV 280-320864/2 Calibration Date: 04/14/2016 18:06

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3449.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	4.683	4.725		10.1	10.0	0.9	20.0
1,2-Dichlorobenzene	Ave	1.663	1.544		9.28	10.0	-7.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0589	0.0512		8.69	10.0	-13.1	20.0
1,2,4-Trichlorobenzene	Ave	1.019	0.997		9.79	10.0	-2.1	20.0
Hexachlorobutadiene	Ave	0.8762	0.8144		9.32	10.0	-7.1	20.0
Naphthalene	Lin1		1.021		8.39	10.0	-16.1	20.0
1,2,3-Trichlorobenzene	Ave	0.7730	0.7153		9.25	10.0	-7.5	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3449.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 14-Apr-2016 18:06:30 ALS Bottle#: 10 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: DUKESA Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:11 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 18:56:53

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	5.473	5.473	0.000	0	182077	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1779973	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.693	0.000	85	367539	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	81	552849	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	57	380441	10.0	10.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	90	340404	10.0	10.8	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1761865	10.0	10.5	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	84	556162	10.0	9.91	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	98	571899	10.0	9.69	
14 Chloromethane	50	4.007	4.007	0.000	88	659621	10.0	9.98	
16 Vinyl chloride	62	4.160	4.160	0.000	98	639482	10.0	9.81	
19 Bromomethane	94	4.496	4.496	0.000	87	408235	10.0	11.0	
20 Chloroethane	64	4.565	4.565	0.000	99	419563	10.0	11.5	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	79	1073714	10.0	9.77	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	93	808290	10.0	9.51	
25 Ethyl ether	59	4.970	4.970	0.000	92	214416	10.0	9.27	
28 Acrolein	56	5.096	5.096	0.000	97	210273	100.0	101.9	
29 Acetone	43	5.194	5.194	0.000	81	168675	40.0	45.4	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	81	370346	10.0	8.80	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	460049	10.0	8.98	
34 Iodomethane	142	5.403	5.403	0.000	98	636749	10.0	8.87	
35 Methyl acetate	43	5.431	5.431	0.000	90	510189	50.0	45.2	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	66	859917	10.0	9.32	
37 Carbon disulfide	76	5.501	5.501	0.000	98	2125581	10.0	9.02	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	1	118993	100.0	95.1	
39 Methylene Chloride	84	5.571	5.571	0.000	83	460276	10.0	9.73	
40 Acrylonitrile	53	5.711	5.711	0.000	98	514140	100.0	93.6	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	90	618646	10.0	9.41	
42 trans-1,2-Dichloroethene	96	5.794	5.794	0.000	92	508336	10.0	9.26	
43 Hexane	57	5.976	5.976	0.000	93	912584	10.0	9.23	
44 Vinyl acetate	43	6.047	6.047	0.000	87	760567	20.0	20.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 1,1-Dichloroethane	63	6.111	6.111	0.000	85	898520	10.0	9.45	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	262345	40.0	37.7	
52 sec-Butyl Alcohol	45	6.518	6.518	0.000	15	118409	150.0	129.2	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	70	460676	10.0	9.44	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	92	739076	10.0	9.82	
56 Chlorobromomethane	128	6.733	6.733	0.000	60	143259	10.0	9.01	
57 Chloroform	83	6.740	6.740	0.000	81	749992	10.0	9.39	
58 Tetrahydrofuran	42	6.769	6.769	0.000	86	68974	20.0	18.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	90	96039	250.0	232.6	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	88	731337	10.0	9.27	
61 Cyclohexane	56	7.048	7.048	0.000	87	1004707	10.0	9.68	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	89	724886	10.0	9.49	
63 Carbon tetrachloride	117	7.112	7.112	0.000	56	628397	10.0	9.16	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	78	375330	10.0	9.52	
66 Benzene	78	7.248	7.248	0.000	96	1926753	10.0	9.64	
67 n-Heptane	43	7.341	7.341	0.000	92	934718	10.0	9.92	
69 Trichloroethene	95	7.705	7.705	0.000	93	465699	10.0	9.32	
70 2-Pentanone	43	7.734	7.734	0.000	98	328916	20.0	33.1	
72 1,2-Dichloropropane	63	7.891	7.891	0.000	87	414184	10.0	9.44	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	834504	10.0	9.62	
74 1,4-Dioxane	88	7.934	7.934	0.000	22	22707	200.0	178.9	
75 Dibromomethane	93	7.991	7.991	0.000	86	137011	10.0	9.07	
76 Dichlorobromomethane	83	8.063	8.063	0.000	93	453798	10.0	9.53	
78 2-Chloroethyl vinyl ether	63	8.213	8.213	0.000	90	40840	10.0	7.54	
79 cis-1,3-Dichloropropene	75	8.392	8.392	0.000	88	504220	10.0	9.79	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	81	518718	40.0	40.7	
81 Toluene	91	8.678	8.678	0.000	90	1983826	10.0	10.3	
82 Ethyl methacrylate	69	8.764	8.764	0.000	58	205784	10.0	8.66	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	93	390230	10.0	9.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	87	190041	10.0	9.09	
85 2-Hexanone	43	9.042	9.042	0.000	89	331295	40.0	40.4	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	95	371653	10.0	9.54	
87 Tetrachloroethene	164	9.093	9.093	0.000	89	388085	10.0	9.04	
88 Chlorodibromomethane	129	9.250	9.250	0.000	88	217622	10.0	9.08	
90 Ethylene Dibromide	107	9.371	9.371	0.000	96	161437	10.0	8.97	
91 1-Chlorohexane	91	9.607	9.607	0.000	91	319485	5.00	4.45	
92 Chlorobenzene	112	9.715	9.715	0.000	91	1124874	10.0	9.26	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.750	0.000	28	343598	10.0	9.36	
94 Ethylbenzene	106	9.758	9.758	0.000	70	717589	10.0	9.58	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	866671	10.0	9.73	
96 Styrene	104	10.144	10.144	0.000	86	1194477	10.0	10.2	
97 o-Xylene	106	10.144	10.144	0.000	88	819904	10.0	9.92	
98 Bromoform	173	10.330	10.330	0.000	93	93335	10.0	8.93	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2216451	10.0	10.1	
101 Cyclohexanone	55	10.515	10.515	0.000	87	145665	400.0	354.1	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.594	0.000	61	198371	10.0	9.13	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	36	49049	10.0	8.42	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	14	50419	10.0	8.91	
105 Bromobenzene	156	10.708	10.708	0.000	56	403601	10.0	9.37	
106 N-Propylbenzene	120	10.716	10.716	0.000	96	636752	10.0	9.85	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	92	1838452	10.0	10.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	92	495954	10.0	9.53	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Chlorotoluene	126	10.909	10.909	0.000	98	483078	10.0	9.63	
110 tert-Butylbenzene	119	11.116	11.116	0.000	92	1831329	10.0	10.0	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	1829190	10.0	9.88	
112 sec-Butylbenzene	134	11.295	11.295	0.000	95	502444	10.0	9.70	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	89	2105064	10.0	10.1	
114 1,3-Dichlorobenzene	146	11.445	11.445	0.000	83	874177	10.0	9.31	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	848776	10.0	9.27	
117 n-Butylbenzene	91	11.738	11.738	0.000	95	2089887	10.0	10.1	
118 1,2-Dichlorobenzene	146	11.860	11.860	0.000	95	682813	10.0	9.28	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	54	22645	10.0	8.69	
121 1,2,4-Trichlorobenzene	180	13.497	13.497	0.000	93	440996	10.0	9.79	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	96	360174	10.0	9.32	
123 Naphthalene	128	13.840	13.840	0.000	96	451564	10.0	8.39	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	93	316370	10.0	9.25	
S 149 1,2-Dichloroethene, Total	96				0		20.0	18.7	
S 150 Trihalomethanes, Total	1				0		40.0	36.9	
S 151 Xylenes, Total (URS)	1				0		20.0	19.7	
S 153 1,3-Dichloropropene, Total	1				0		20.0	19.6	
S 154 1,2-Dichloroethene, Total	1				0		20.0	18.7	
S 155 Xylenes, Total	106				0		20.0	19.7	

Reagents:

MV-2cleve+AVA_00015	Amount Added:	5.00	Units: uL		
MV-567649-D_00001	Amount Added:	1.00	Units: uL		
MV-Main A_00026	Amount Added:	5.00	Units: uL		
MV-Gas/Ket A_00044	Amount Added:	5.00	Units: uL		
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent	

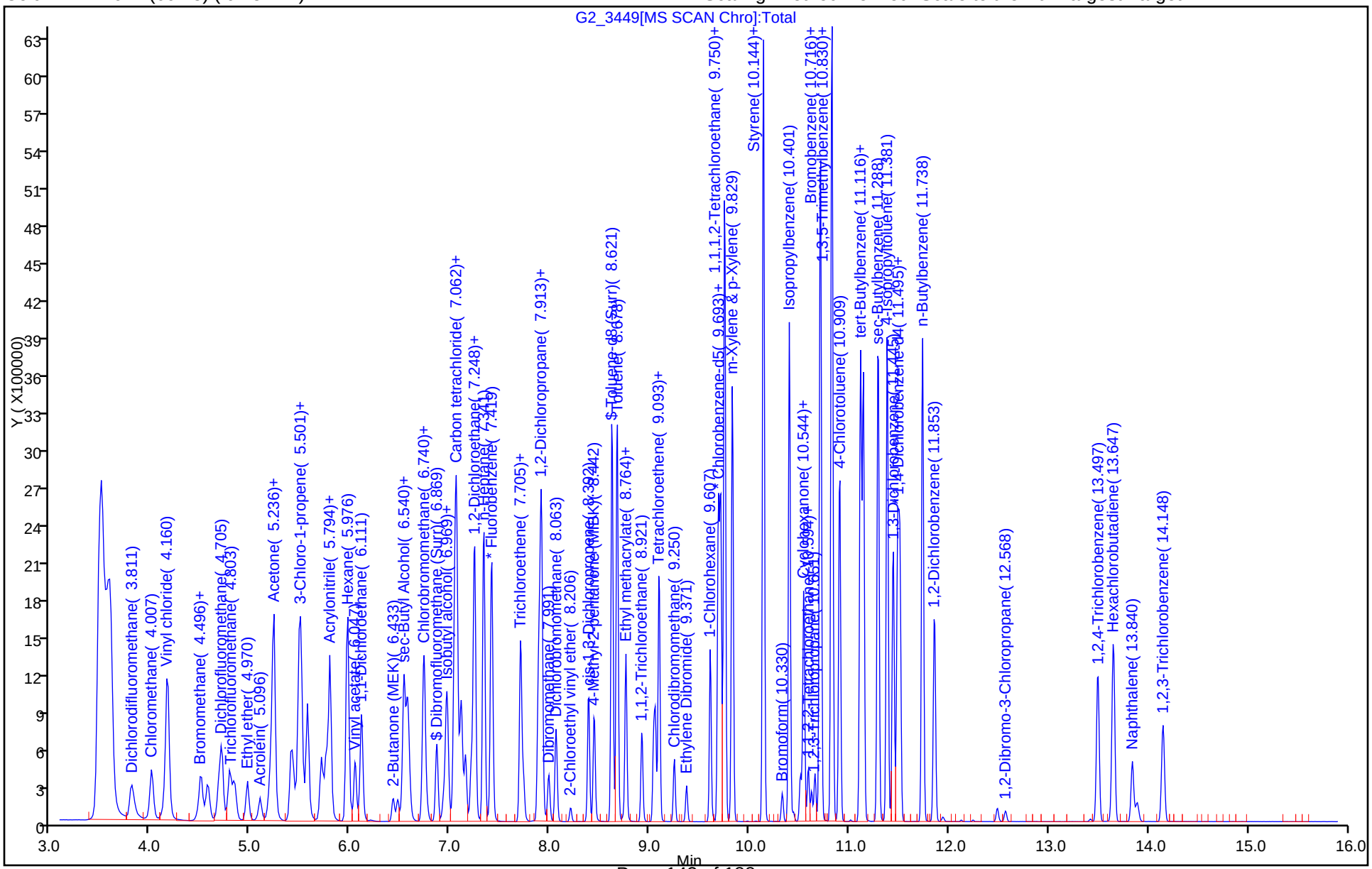
Report Date: 15-Apr-2016 16:15:12 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3449.D

Injection Date:	14-Apr-2016 18:06:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	12-Apr-2016 09:04:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	ilczyszynd	Instrument ID:	VMS_G2		
Method:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	13-Apr-2016 05:42:17	Calib Date:	12-Apr-2016 14:49:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	XAWRK052				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	4.498	4.498	0.000	80	112742	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

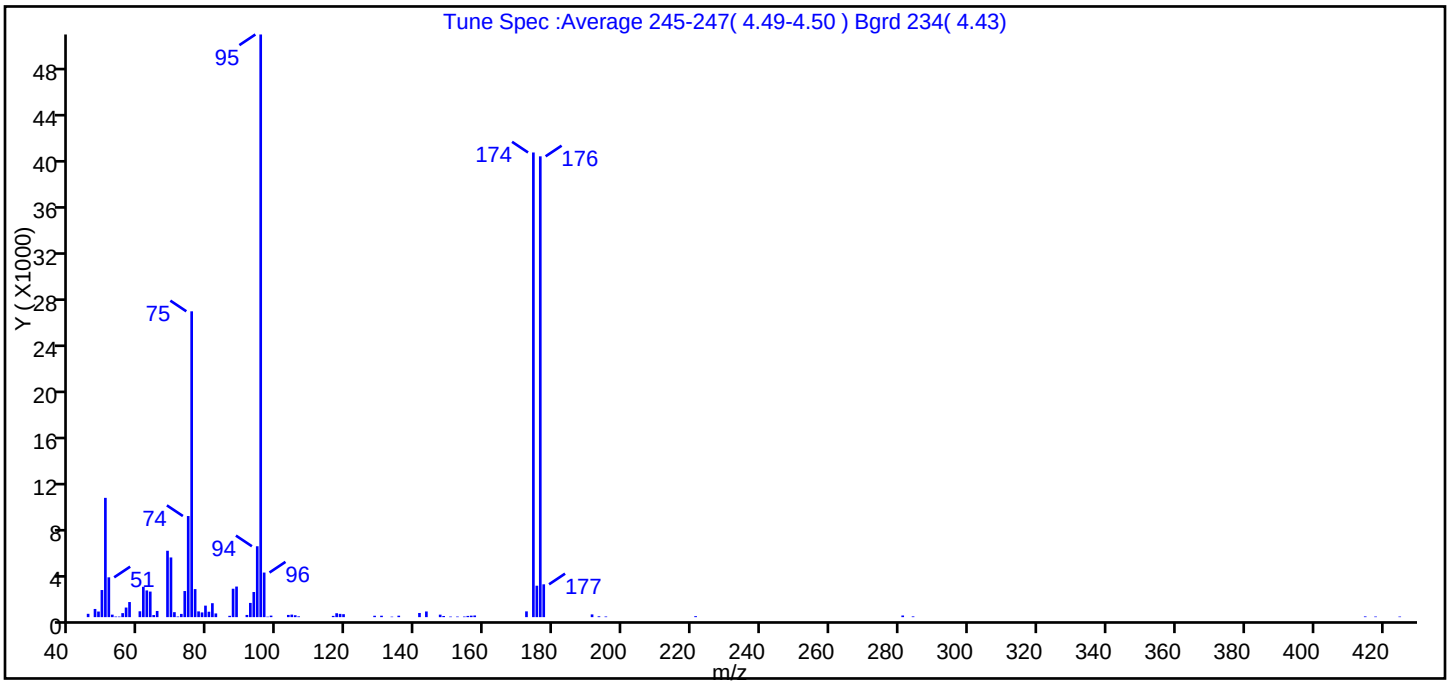
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D
Injection Date: 12-Apr-2016 09:04:30 Instrument ID: VMS_G2
Lims ID: BFB
Client ID:
Operator ID: ilczyszynd ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.5
75	30 to 60% of m/z 95	52.5
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.7
175	5 to 9% of m/z 174	5.4 (6.8)
176	Greater than 95% but less than 101% of m/z 174	79.1 (99.2)
177	5 to 9% of m/z 176	5.6 (7.1)

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 12-Apr-2016 09:04:30
Spectrum: Tune Spec :Average 245-247(4.49-4.50) Bgrd 234(4.43)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	291	70.00	434	95.00	50800	150.00	50
47.00	714	71.00	54	96.00	3888	152.00	52
48.00	490	72.00	283	97.00	41	154.00	52
49.00	2364	73.00	2276	98.00	134	155.00	107
50.00	10400	74.00	8815	103.00	194	156.00	130
51.00	3471	75.00	26664	104.00	222	157.00	145
52.00	218	76.00	2445	105.00	166	172.00	505
53.00	52	77.00	502	106.00	68	174.00	40512
54.00	50	78.00	412	116.00	109	175.00	2741
55.00	349	79.00	1004	117.00	341	176.00	40176
56.00	837	80.00	473	118.00	285	177.00	2862
57.00	1316	81.00	1216	119.00	259	191.00	239
60.00	511	82.00	323	128.00	121	193.00	73
61.00	2645	86.00	116	130.00	125	195.00	57
62.00	2330	87.00	2477	133.00	42	221.00	86
63.00	2229	88.00	2667	135.00	126	281.00	143
64.00	182	91.00	193	141.00	363	284.00	65
65.00	538	92.00	1240	143.00	496	415.00	64
68.00	5787	93.00	2191	147.00	217	418.00	53
69.00	5204	94.00	6180	148.00	100	425.00	52

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3448.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 14-Apr-2016 17:43:30 ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: DUKESA Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:08 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 18:28:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	4.487	4.487	0.000	79	92152	NR	NR	7

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
7 - Failed Limit of Detection

Reagents:

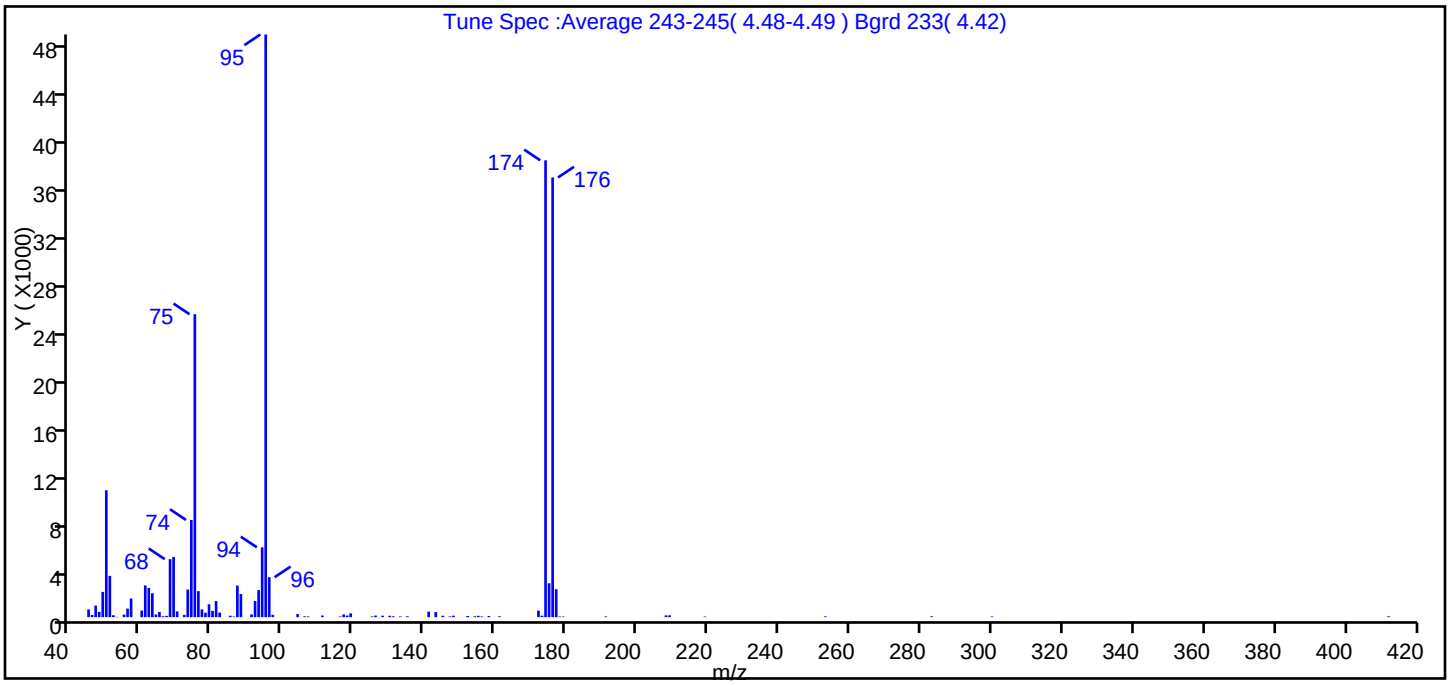
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3448.D
Injection Date: 14-Apr-2016 17:43:30 Instrument ID: VMS_G2
Lims ID: BFB
Client ID:
Operator ID: DUKESA ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.8
75	30 to 60% of m/z 95	52.0
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	78.4
175	5 to 9% of m/z 174	5.8 (7.4)
176	Greater than 95% but less than 101% of m/z 174	75.5 (96.2)
177	5 to 9% of m/z 176	4.8 (6.4)

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3448.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 14-Apr-2016 17:43:30
Spectrum: Tune Spec :Average 243-245(4.48-4.49) Bgrd 233(4.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	646	70.00	480	97.00	192	154.00	71
46.00	184	72.00	190	104.00	258	155.00	115
47.00	961	73.00	2298	106.00	69	156.00	57
48.00	443	74.00	8116	107.00	60	158.00	99
49.00	2107	75.00	25288	111.00	134	161.00	71
50.00	10594	76.00	2169	116.00	52	172.00	542
51.00	3445	77.00	648	117.00	222	173.00	121
52.00	157	78.00	364	118.00	132	174.00	38136
53.00	26	79.00	1076	119.00	315	175.00	2829
55.00	210	80.00	521	125.00	58	176.00	36704
56.00	712	81.00	1340	126.00	133	177.00	2333
57.00	1555	82.00	378	128.00	121	178.00	53
60.00	552	85.00	119	130.00	114	179.00	50
61.00	2648	86.00	50	131.00	69	191.00	61
62.00	2441	87.00	2636	133.00	58	208.00	148
63.00	1994	88.00	1926	135.00	74	209.00	153
64.00	221	91.00	228	141.00	459	219.00	50
65.00	436	92.00	1341	143.00	422	253.00	66
66.00	73	93.00	2259	145.00	117	283.00	69
67.00	105	94.00	5829	147.00	61	300.00	52
68.00	4842	95.00	48640	148.00	126	412.00	68
69.00	5026	96.00	3332	152.00	97		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-320864/6

Matrix: Water | Lab File ID: G2_3452.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:09

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.: 320864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	160	U	220	160	71
544-10-5	1-Chlorohexane	0.40	U	1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-320864/6

Matrix: Water | Lab File ID: G2_3452.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:09

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.: 320864 | 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	0.40	U	1.0	0.40	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	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	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
110-82-7	Cyclohexane	0.80	U	2.0	0.80	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	4.0	U	5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
108-87-2	Methylcyclohexane	0.80	U	2.0	0.80	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	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-320864/6

Matrix: Water | Lab File ID: G2_3452.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 19:09

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.: 320864 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-120
460-00-4	4-Bromofluorobenzene (Surr)	106		75-120
1868-53-7	Dibromofluoromethane (Surr)	106		85-115
2037-26-5	Toluene-d8 (Surr)	110		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3452.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 14-Apr-2016 19:09:30 ALS Bottle#: 13 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: MB
Operator ID: DUKESA Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: dukesa Date: 14-Apr-2016 20:17:58

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	5.473	5.473	0.000	0	159957	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1709476	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	336754	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	452008	12.5	12.5	
* 5 1,4-Dioxane-d8	96		0.000					ND	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	377197	10.0	10.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	98	333508	10.0	11.0	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1688853	10.0	11.0	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	86	486921	10.0	10.6	
$ 10 Trifluorotoluene (Surr)	1		0.000					ND	
$ 11 BFB	95		4.487					ND	
13 Dichlorodifluoromethane	85		3.811					ND	
12 Chlorotrifluoroethene	116		3.867					ND	
14 Chloromethane	50		4.007					ND	
15 1,2-Dichloro-1,1,2,2-tetra	85		4.077					ND	
16 Vinyl chloride	62		4.160					ND	
17 2-Chloro-1,1,1-Trifluoroet	118		4.314					ND	
18 Ethylene oxide	43		4.454					ND	
19 Bromomethane	94		4.496					ND	
20 Chloroethane	64		4.565					ND	
21 Dichlorofluoromethane	67		4.705					ND	
22 Trichlorofluoromethane	101		4.789					ND	
23 Ethanol	45		4.817					ND	
25 Ethyl ether	59		4.970					ND	
27 Propene oxide	58		5.054					ND	
24 1,2-Dichloro-1,1,2-trifluo	117		5.082					ND	
28 Acrolein	56		5.096					ND	
26 1,1,1-Trifluoro-2,2-dichlo	83		5.110					ND	
29 Acetone	43		5.194					ND	
30 Isopropyl alcohol	45		5.222					ND	
31 1,1,2-Trichloro-1,2,2-trif	151		5.222					ND	
32 1,1-Dichloroethene	96		5.236					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Iodomethane	142		5.403					ND	
33 Acetonitrile	41		5.417					ND	
35 Methyl acetate	43		5.431					ND	
36 3-Chloro-1-propene	41		5.487					ND	
37 Carbon disulfide	76		5.501					ND	
38 2-Methyl-2-propanol	59		5.529					ND	
39 Methylene Chloride	84		5.571					ND	
40 Acrylonitrile	53		5.711					ND	
41 Methyl tert-butyl ether	73		5.767					ND	
42 trans-1,2-Dichloroethene	96		5.794					ND	
43 Hexane	57		5.976					ND	
44 Vinyl acetate	43		6.047					ND	
45 Isopropyl ether	87		6.082					ND	
46 1,1-Dichloroethane	63		6.111					ND	
47 2-Chloro-1,3-butadiene	53		6.189					ND	
48 Tert-butyl ethyl ether	59		6.354					ND	
49 Ethyl acetate	43		6.476					ND	
50 2-Butanone (MEK)	43		6.476					ND	
52 sec-Butyl Alcohol	45		6.518					ND	
51 Propionitrile	54		6.526					ND	
53 cis-1,2-Dichloroethene	96		6.540					ND	
54 2,2-Dichloropropane	77		6.576					ND	
55 Methacrylonitrile	41		6.654					ND	
56 Chlorobromomethane	128		6.733					ND	
57 Chloroform	83		6.740					ND	
58 Tetrahydrofuran	42		6.769					ND	
59 Isobutyl alcohol	41		6.933					ND	
60 1,1,1-Trichloroethane	97		6.969					ND	
61 Cyclohexane	56		7.048					ND	
62 1,1-Dichloropropene	75		7.069					ND	
63 Carbon tetrachloride	117		7.112					ND	
64 1,2-Dichloroethane	62		7.212					ND	
65 Tert-amyl methyl ether	73		7.241					ND	
66 Benzene	78		7.248					ND	
67 n-Heptane	43		7.341					ND	
68 n-Butanol	56		7.434					ND	
69 Trichloroethene	95		7.705					ND	
70 2-Pentanone	43		7.734					ND	
71 Methyl methacrylate	100		7.841					ND	
72 1,2-Dichloropropane	63		7.891					ND	
73 Methylcyclohexane	55		7.913					ND	
74 1,4-Dioxane	88		7.934					ND	
75 Dibromomethane	93		7.991					ND	
76 Dichlorobromomethane	83		8.063					ND	
77 2-Nitropropane	41		8.192					ND	
78 2-Chloroethyl vinyl ether	63		8.213					ND	
79 cis-1,3-Dichloropropene	75		8.392					ND	
80 4-Methyl-2-pentanone (MIBK	43		8.442					ND	
81 Toluene	91		8.678					ND	
82 Ethyl methacrylate	69		8.764					ND	
83 trans-1,3-Dichloropropene	75		8.764					ND	
84 1,1,2-Trichloroethane	97		8.921					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 2-Hexanone	43		9.042					ND	
86 1,3-Dichloropropane	76		9.057					ND	
87 Tetrachloroethene	164		9.093					ND	
88 Chlorodibromomethane	129		9.250					ND	
89 Tetrahydrothiophene	60		9.293					ND	
90 Ethylene Dibromide	107		9.371					ND	
91 1-Chlorohexane	91		9.607					ND	
92 Chlorobenzene	112		9.715					ND	
93 1,1,1,2-Tetrachloroethane	131		9.750					ND	
94 Ethylbenzene	106		9.758					ND	
95 m-Xylene & p-Xylene	106		9.829					ND	
96 Styrene	104		10.144					ND	
97 o-Xylene	106		10.144					ND	
98 Bromoform	173		10.330					ND	
99 Isopropylbenzene	105		10.401					ND	
100 cis-1,4-Dichloro-2-butene	53		10.415					ND	
101 Cyclohexanone	55		10.515					ND	
102 1,1,2,2-Tetrachloroethane	83		10.594					ND	
103 trans-1,4-Dichloro-2-buten	53		10.623					ND	
104 1,2,3-Trichloropropane	110		10.658					ND	
105 Bromobenzene	156		10.708					ND	
106 N-Propylbenzene	120		10.716					ND	
107 1,3,5-Trimethylbenzene	105		10.823					ND	
108 2-Chlorotoluene	126		10.830					ND	
109 4-Chlorotoluene	126		10.909					ND	
110 tert-Butylbenzene	119		11.116					ND	
111 1,2,4-Trimethylbenzene	105		11.145					ND	
112 sec-Butylbenzene	134		11.295					ND	
113 4-Isopropyltoluene	119		11.381					ND	
114 1,3-Dichlorobenzene	146		11.445					ND	
116 1,4-Dichlorobenzene	146		11.509					ND	
115 1,2,3-Trimethylbenzene	105		11.516					ND	
117 n-Butylbenzene	91		11.738					ND	
118 1,2-Dichlorobenzene	146		11.860					ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568					ND	
120 1,3,5-Trichlorobenzene	180		12.789					ND	
121 1,2,4-Trichlorobenzene	180		13.497					ND	
122 Hexachlorobutadiene	225		13.647					ND	
123 Naphthalene	128		13.840					ND	
124 1,2,3-Trichlorobenzene	180		14.148					ND	
128 2,2-Dimethylpentane	1		0.000					ND	
143 n-Nonyl Aldehyde	1		0.000					ND	
136 3-Ethylpentane	1		0.000					ND	
145 Pentachloroethane	167		0.000					ND	
142 2,4-Dimethylpentane	1		0.000					ND	
137 2,2,3-Trimethylbutane	1		0.000					ND	
141 3,3-Dimethylpentane	1		0.000					ND	
126 Dimethyl disulfide	1		0.000					ND	
125 2,3-Dimethylpentane	1		0.000					ND	
139 3-Methylhexane	1		0.000					ND	
129 2-Methylhexane	1		0.000					ND	
S 149 1,2-Dichloroethene, Total	96		2.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 150 Trihalomethanes, Total	1		0.000				ND		
S 151 Xylenes, Total (URS)	1		0.000				ND		
S 152 Total BTEX	1		0.000				ND		
S 153 1,3-Dichloropropene, Total	1		0.000				ND		
S 154 1,2-Dichloroethene, Total	1		0.000				ND		
S 155 Xylenes, Total	106		0.000				ND		
S 156 TAH	1				0			0	
T 133 Propene TIC	41		0.000				ND		
T 132 1,3-Butadiene TIC	39		0.000				ND		
T 130 Dicyclopentadiene TIC	66		0.000				ND		
T 131 4-Ethyltoluene TIC	105		0.000				ND		
T 127 2-Butoxyethanol TIC	1		0.000				ND		
T 146 2,3-dichloro-1-propene TIC	75		0.000				ND		
T 147 Dichloroacetonitrile TIC	74		0.000				ND		
T 148 Propene oxide TIC	58		0.000				ND		
T 157 n-Nonane TIC	1		0.000				ND		

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent

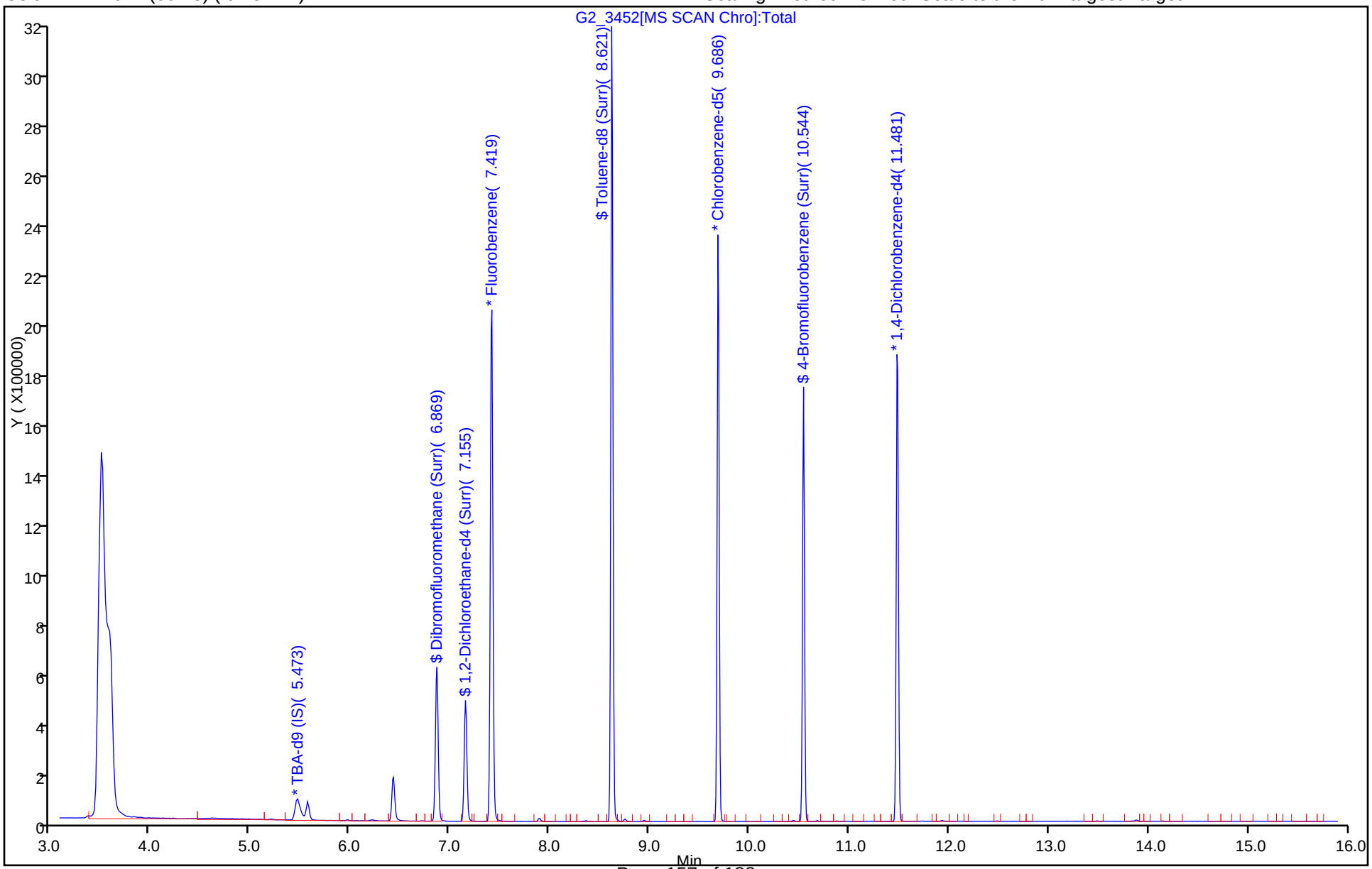
Report Date: 15-Apr-2016 16:15:25 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3452.D

Injection Date:	14-Apr-2016 19:09:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-320864/4

Matrix: Water | Lab File ID: G2_3451.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 18:49

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.: 320864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.10		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	5.13		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	5.09		1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.55		3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	4.90		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	5.09		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.75		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	5.27		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.87		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	5.03		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	5.14		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	5.74		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.35	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	5.32		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	5.07		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	5.30		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	5.87		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	5.44		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	5.08		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	5.44		1.0	0.40	0.16
123-91-1	1,4-Dioxane	97.4	J	220	160	71
544-10-5	1-Chlorohexane	5.42		1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	5.38		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	20.5		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	5.61		1.0	0.40	0.17
591-78-6	2-Hexanone	18.1		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	5.61		1.0	0.80	0.17
99-87-6	4-Isopropyltoluene	6.04		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	18.5		5.0	3.2	1.0
67-64-1	Acetone	23.0		10	6.4	1.9
71-43-2	Benzene	5.28		1.0	0.40	0.16
108-86-1	Bromobenzene	5.39		1.0	0.40	0.17
75-25-2	Bromoform	5.00		1.0	0.40	0.19
74-83-9	Bromomethane	4.12		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.67		2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-81433-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-320864/4

Matrix: Water | Lab File ID: G2_3451.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 04/14/2016 18:49

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.: 320864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.20		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.28		1.0	0.40	0.17
74-97-5	Chlorobromomethane	4.88		1.0	0.20	0.10
124-48-1	Chlorodibromomethane	4.87		1.0	0.40	0.17
75-00-3	Chloroethane	4.75		2.0	1.6	0.41
67-66-3	Chloroform	5.25		1.0	0.40	0.16
74-87-3	Chloromethane	4.50		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	5.23		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	5.35		1.0	0.40	0.16
110-82-7	Cyclohexane	5.13		2.0	0.80	0.28
74-95-3	Dibromomethane	4.89		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	5.14		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	4.76		2.0	0.80	0.31
100-41-4	Ethylbenzene	5.43		1.0	0.40	0.16
106-93-4	Ethylene Dibromide	4.93		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	5.66		1.0	0.80	0.36
98-82-8	Isopropylbenzene	6.01		1.0	0.40	0.19
79-20-9	Methyl acetate	23.2		5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	4.77	J	5.0	0.80	0.25
108-87-2	Methylcyclohexane	5.17		2.0	0.80	0.36
75-09-2	Methylene Chloride	5.12		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.52		2.0	0.80	0.34
91-20-3	Naphthalene	4.26		1.0	0.80	0.22
104-51-8	n-Butylbenzene	6.01		1.0	0.80	0.32
103-65-1	N-Propylbenzene	5.84		1.0	0.40	0.16
95-47-6	o-Xylene	5.39		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.80		1.0	0.40	0.17
100-42-5	Styrene	5.44		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	5.84		1.0	0.40	0.16
127-18-4	Tetrachloroethene	5.21		1.0	0.40	0.20
108-88-3	Toluene	5.78		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	5.15		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	5.08		1.0	0.40	0.19
79-01-6	Trichloroethene	5.25		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	4.87		2.0	0.80	0.29
75-01-4	Vinyl chloride	4.70		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-320864/4

Matrix: Water Lab File ID: G2_3451.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 04/14/2016 18:49

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.: 320864 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)	98		85-115
2037-26-5	Toluene-d8 (Surr)	102		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3451.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 14-Apr-2016 18:49:30 ALS Bottle#: 12 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Operator ID: DUKESA Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 15-Apr-2016 16:15:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK050

	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	5.473	5.473	0.000	0	174718	250.0	250.0	
*	2 Fluorobenzene	96	7.419	7.419	0.000	98	1877963	12.5	12.5	
*	3 Chlorobenzene-d5	119	9.693	9.686	0.007	89	384077	12.5	12.5	
*	4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	552302	12.5	12.5	
$	6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	382993	10.0	9.83	
$	7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	98	338429	10.0	10.2	
$	8 Toluene-d8 (Surr)	98	8.620	8.621	-0.001	94	1789514	10.0	10.2	
$	9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	87	564540	10.0	10.1	
	13 Dichlorodifluoromethane	85	3.811	3.811	0.000	100	296250	5.00	4.76	
	14 Chloromethane	50	4.007	4.007	0.000	99	313809	5.00	4.50	
	16 Vinyl chloride	62	4.160	4.160	0.000	98	323153	5.00	4.70	
	19 Bromomethane	94	4.495	4.496	-0.001	91	203670	5.00	4.12	
	20 Chloroethane	64	4.565	4.565	0.000	100	218679	5.00	4.75	
	21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	575636	5.00	4.97	
	22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	437049	5.00	4.87	
	25 Ethyl ether	59	4.970	4.970	0.000	93	108840	5.00	4.46	
	28 Acrolein	56	5.096	5.096	0.000	99	63666	50.0	29.2	
	29 Acetone	43	5.194	5.194	0.000	100	95243	20.0	23.0	
	31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	202104	5.00	4.55	
	32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	256577	5.00	4.75	
	34 Iodomethane	142	5.403	5.403	0.000	98	360681	5.00	4.76	
	35 Methyl acetate	43	5.431	5.431	0.000	97	276171	25.0	23.2	
	36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	501576	5.00	5.15	
	37 Carbon disulfide	76	5.501	5.501	0.000	99	1162347	5.00	4.67	
	38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	61916	50.0	46.9	
	39 Methylene Chloride	84	5.571	5.571	0.000	96	272808	5.00	5.12	
	40 Acrylonitrile	53	5.710	5.711	-0.001	99	278286	50.0	48.0	
	41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	97	330769	5.00	4.77	
	42 trans-1,2-Dichloroethene	96	5.794	5.794	0.000	96	298343	5.00	5.15	
	43 Hexane	57	5.976	5.976	0.000	93	499929	5.00	4.84	
	44 Vinyl acetate	43	6.046	6.047	-0.001	97	345404	10.0	8.73	
	46 1,1-Dichloroethane	63	6.111	6.111	0.000	96	510262	5.00	5.09	
	50 2-Butanone (MEK)	43	6.475	6.476	-0.001	100	150640	20.0	20.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
52 sec-Butyl Alcohol	45	6.518	6.518	0.000	95	121461	150.0	125.8	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	269389	5.00	5.23	
54 2,2-Dichloropropane	77	6.575	6.576	-0.001	91	427429	5.00	5.38	
56 Chlorobromomethane	128	6.733	6.733	0.000	97	81881	5.00	4.88	
57 Chloroform	83	6.740	6.740	0.000	94	442623	5.00	5.25	
58 Tetrahydrofuran	42	6.768	6.769	-0.001	85	33325	10.0	8.60	
59 Isobutyl alcohol	41	6.933	6.933	0.000	90	50472	125.0	115.9	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	427455	5.00	5.13	
61 Cyclohexane	56	7.047	7.048	-0.001	93	561502	5.00	5.13	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	94	424607	5.00	5.27	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	376239	5.00	5.20	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	211050	5.00	5.07	
66 Benzene	78	7.248	7.248	0.000	96	1113302	5.00	5.28	
67 n-Heptane	43	7.340	7.341	-0.001	93	533029	5.00	5.36	
69 Trichloroethene	95	7.705	7.705	0.000	98	276877	5.00	5.25	
70 2-Pentanone	43	7.734	7.734	0.000	99	244357	20.0	22.5	
72 1,2-Dichloropropane	63	7.884	7.891	-0.007	93	245570	5.00	5.30	
73 Methylcyclohexane	55	7.913	7.913	-0.001	95	472768	5.00	5.17	
74 1,4-Dioxane	88	7.941	7.934	0.007	92	12625	100.0	97.4	
75 Dibromomethane	93	7.991	7.991	0.000	94	77878	5.00	4.89	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	258340	5.00	5.14	
78 2-Chloroethyl vinyl ether	63	8.206	8.213	-0.007	93	23036	5.00	4.98	
79 cis-1,3-Dichloropropene	75	8.384	8.392	-0.008	94	287868	5.00	5.35	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	248364	20.0	18.5	
81 Toluene	91	8.678	8.678	0.000	98	1180099	5.00	5.78	
82 Ethyl methacrylate	69	8.756	8.764	-0.008	91	109584	5.00	4.65	
83 trans-1,3-Dichloropropene	75	8.763	8.764	-0.001	98	214098	5.00	5.08	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	108181	5.00	4.90	
85 2-Hexanone	43	9.042	9.042	0.000	99	155241	20.0	18.1	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	95	206608	5.00	5.08	
87 Tetrachloroethene	164	9.092	9.093	-0.001	97	233596	5.00	5.21	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	121950	5.00	4.87	
90 Ethylene Dibromide	107	9.371	9.371	0.000	99	92689	5.00	4.93	
91 1-Chlorohexane	91	9.607	9.607	0.000	93	411218	5.00	5.42	
92 Chlorobenzene	112	9.714	9.715	-0.001	93	669644	5.00	5.28	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.750	0.000	94	195461	5.00	5.10	
94 Ethylbenzene	106	9.757	9.758	-0.001	99	425070	5.00	5.43	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	513673	5.00	5.52	
96 Styrene	104	10.143	10.144	-0.001	85	665090	5.00	5.44	
97 o-Xylene	106	10.143	10.144	-0.001	88	465055	5.00	5.39	
98 Bromoform	173	10.329	10.330	-0.001	95	54638	5.00	5.00	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	1314266	5.00	6.01	
101 Cyclohexanone	55	10.508	10.515	-0.007	96	69104	200.0	169.5	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.594	-0.007	92	110439	5.00	5.09	
103 trans-1,4-Dichloro-2-buten	53	10.622	10.623	-0.001	88	28246	5.00	4.86	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	87	28428	5.00	5.03	
105 Bromobenzene	156	10.708	10.708	0.000	96	231923	5.00	5.39	
106 N-Propylbenzene	120	10.715	10.716	-0.001	99	377082	5.00	5.84	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1068709	5.00	5.87	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	291482	5.00	5.61	
109 4-Chlorotoluene	126	10.908	10.909	-0.001	98	281258	5.00	5.61	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	1067717	5.00	5.84	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
111 1,2,4-Trimethylbenzene	105	11.144	11.145	-0.001	98	1062481	5.00	5.74	
112 sec-Butylbenzene	134	11.287	11.295	-0.008	95	299947	5.00	5.80	
113 4-Isopropyltoluene	119	11.380	11.381	-0.001	98	1261367	5.00	6.04	
114 1,3-Dichlorobenzene	146	11.445	11.445	0.000	97	510084	5.00	5.44	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	497286	5.00	5.44	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	1242746	5.00	6.01	
118 1,2-Dichlorobenzene	146	11.852	11.860	-0.008	96	391100	5.00	5.32	
119 1,2-Dibromo-3-Chloropropan	157	12.567	12.568	-0.001	75	11315	5.00	4.35	
121 1,2,4-Trichlorobenzene	180	13.490	13.497	-0.007	94	231624	5.00	5.14	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	97	218300	5.00	5.66	
123 Naphthalene	128	13.840	13.840	0.000	97	213363	5.00	4.26	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	94	166455	5.00	4.87	
S 149 1,2-Dichloroethene, Total	96				0		10.0	10.4	
S 150 Trihalomethanes, Total	1				0		20.0	20.3	
S 151 Xylenes, Total (URS)	1				0		10.0	10.9	
S 153 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 154 1,2-Dichloroethene, Total	1				0		5.00	10.4	
S 155 Xylenes, Total	106				0		10.0	10.9	

Reagents:

MV-SS 2-Cleve_00027	Amount Added:	2.50	Units: uL	
MV-Main B_00014	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL	Run Reagent

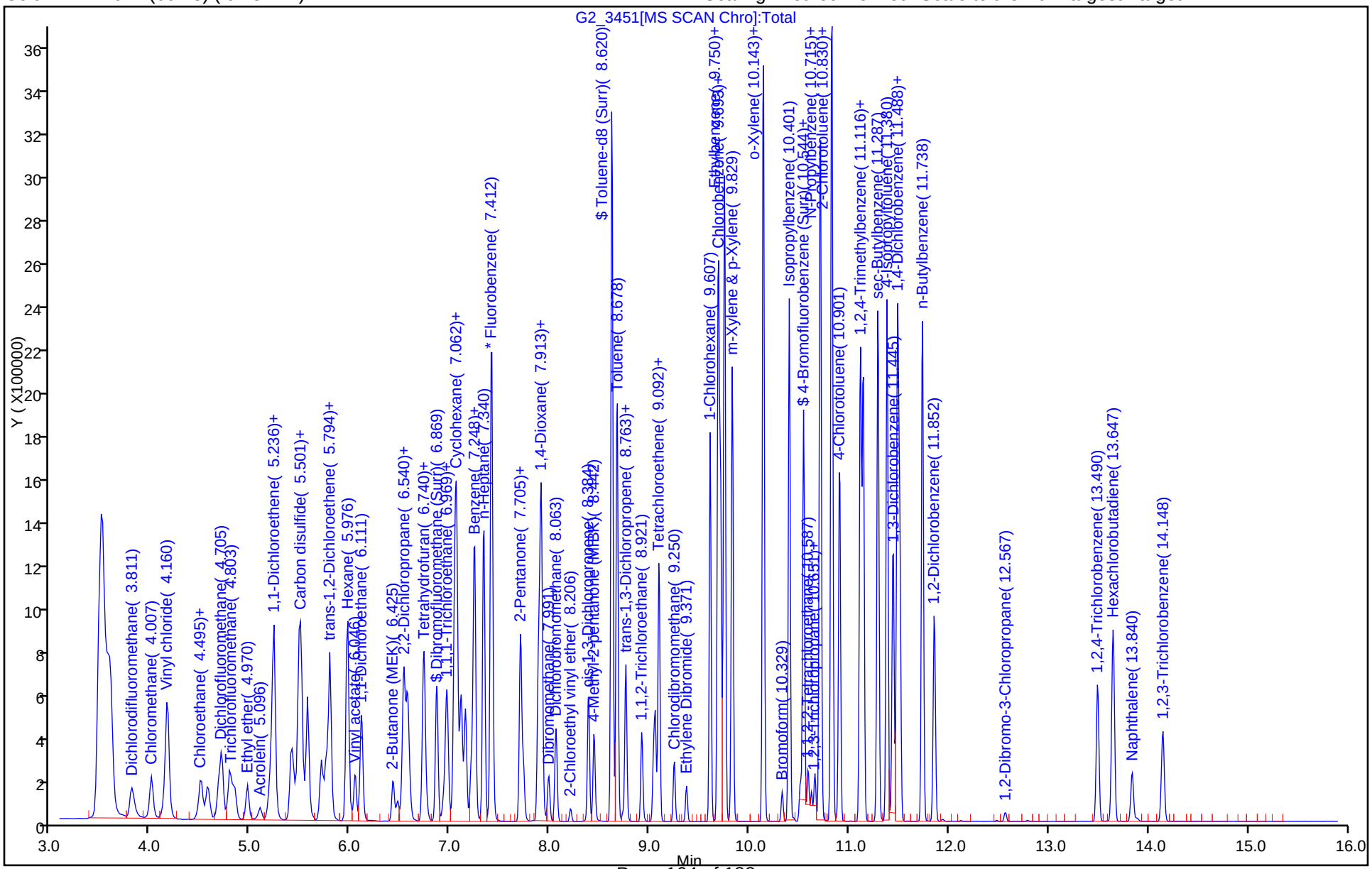
Report Date: 15-Apr-2016 16:15:19 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b\G2_3451.D

Injection Date:	14-Apr-2016 18:49:30	Instrument ID:	VMS_G2	Operator ID:	DUKESA
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-81433-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 04/12/2016 09:04

Analysis Batch Number: 320302 End Date: 04/12/2016 15:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-320302/1		04/12/2016 09:04	1	G2_3362.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/10		04/12/2016 10:14	1	G2_3363.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/11		04/12/2016 10:33	1	G2_3364.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/12		04/12/2016 10:52	1	G2_3365.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/13		04/12/2016 11:12	1	G2_3366.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/14		04/12/2016 11:31	1	G2_3367.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/15		04/12/2016 11:50	1	G2_3368.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/16		04/12/2016 12:10	1	G2_3369.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/18		04/12/2016 12:48	1	G2_3361.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/19		04/12/2016 13:31	1	G2_3373.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/20		04/12/2016 13:51	1	G2_3374.D	DB-624 (60.25) 0.25(mm)
ICIS 280-320302/21		04/12/2016 14:10	1	G2_3375.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/22		04/12/2016 14:29	1	G2_3376.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/23		04/12/2016 14:49	1	G2_3377.D	DB-624 (60.25) 0.25(mm)
ICV 280-320302/24		04/12/2016 15:08	1	G2_3378.D	DB-624 (60.25) 0.25(mm)
ICV 280-320302/17		04/12/2016 15:28	1	G2_3379.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 04/14/2016 17:43

Analysis Batch Number: 320864 End Date: 04/15/2016 05:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-320864/1		04/14/2016 17:43	1	G2_3448.D	DB-624 (60.25) 0.25(mm)
CCV 280-320864/2		04/14/2016 18:06	1	G2_3449.D	DB-624 (60.25) 0.25(mm)
CCV 280-320864/3		04/14/2016 18:26	1	G2_3450.D	DB-624 (60.25) 0.25(mm)
LCS 280-320864/4		04/14/2016 18:49	1	G2_3451.D	DB-624 (60.25) 0.25(mm)
MB 280-320864/6		04/14/2016 19:09	1	G2_3452.D	DB-624 (60.25) 0.25(mm)
280-81433-3		04/14/2016 19:33	1	G2_3453.D	DB-624 (60.25) 0.25(mm)
280-81433-4		04/14/2016 19:53	1	G2_3454.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 20:13	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 20:33	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 20:53	4		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 21:12	40		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 21:32	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 21:51	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 22:11	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 22:31	10		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 22:51	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 23:11	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/14/2016 23:31	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 00:19	1		DB-624 (60.25) 0.25(mm)
CCVC 280-320864/23		04/15/2016 00:38	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 00:59	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 01:18	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 01:38	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 01:58	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 02:17	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 02:37	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 02:56	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 03:16	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 03:36	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 03:55	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 04:15	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 04:34	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 04:54	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		04/15/2016 05:13	1		DB-624 (60.25) 0.25(mm)

GCMS Volatile CCV & Batch Data Review Checklist

LIMS Batch Number:	Worklist #: 450646	Instrument ID: G-2
Analyst/1st Reviewer: AOO Date: 4/14/16		Analytical Method (circle): 624 8260B 8260 SIM Other_____
QC Type (circle): Standard DOD Q4 DOD Q5 QAPP_____		Other_____
Matrix (circle one): Water Solid		Circle: 5-mL 20-mL Meth Ext 5 g

Review Items	NA	Yes	No	2nd Rev	Comments (List NCM #)
A. Tune & Continuing Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		/		*	Time of injection: 1743
2. Was the correct ICAL used for quantitation? Date and instrument ID of ICAL verified? (Check in both Chrom/Target and TALS)		/		✓	
3. Is ICAL locked in TALS and Chrom?		/		✓	
4. Do RFs meet minimum criteria? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		/		✓	
5. Does %Difference/%Drift meet criteria? (624: cmpd specific-Table 5 Q value) (8260B: ≤20% for CCCs; ≤20% for all cmpds/surrogates if CCCs not on list); (DOD ± 20%)		/		✓	(8260B: %D high, samples ND? List NCM)
6. Are the Internal Standard area responses within method limits? (624 – not method defined) (8260B -- 50% - 200% of ICAL mid pt)		/		✓	
7. Are the internal standard retention times within method limits? (624, ±30 sec of ICAL mid pt) (8260B, ±30 sec of ICAL mid pt)		/		✓	
8. Isomeric pairs checked for elution order and correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		/		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required	/			✓	

Comments: _____

2nd Reviewer: _____ Review Date: 04/14/16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\041416PM.S
Comment:
Operator: DUKESA
Data Path: C:\MSDchem\1\data\041416PM\
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

GT2

1743 - 0513

320864

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	G2_3446	BFB	BFB
2	Sample	100	G2_3447	BFB	BFB
3	Sample	100	G2_3448	BFB	BFB
4	Sample	10	G2_3449	8260B2	CCV
5	Sample	11	G2_3450	8260B2	CCV
6	Sample	12	G2_3451	8260B2	LCS
7	Sample	13	G2_3452	8260B2	MB
8	Sample	14	G2_3453	8260B2	280-81433-a-3 PH<2 SS↑, ND
9	Sample	15	G2_3454	8260B2	280-81433-a-4 PH<2
10	Sample	16	G2_3455	8260B2	280-81721-c-1 PH<2 SS↑, ND
11	Sample	17	G2_3456	8260B2	280-81721-d-2 PH<2
12	Sample	18	G2_3457	8260B2	280-81721-c-3 5ML PH<2 SS↑, ND
13	Sample	19	G2_3458	8260B2	280-81721-c-3 0.5ML PH<2
14	Sample	20	G2_3459	8260B2	280-81721-k-4 PH<2
15	Sample	21	G2_3460	8260B2	280-81721-h-4 MS PH<2
16	Sample	22	G2_3461	8260B2	280-81721-h-4 MSD PH<2
17	Sample	23	G2_3462	8260B2	280-81721-k-4 2ML PH<2
18	Sample	24	G2_3463	8260B2	280-81721-c-5 PH<2 SS↑, RR
19	Sample	25	G2_3464	8260B2	280-81721-c-6 PH<2
20	Sample	26	G2_3465	8260B2	280-81721-b-7 PH<2
21	Sample	27	G2_3466	8260B2	280-81721-c-5 PH<2 Report
22	Sample	28	G2_3467	8260B2	CCVC
23	Sample	29	G2_3468	8260B2	280-81608-b-1 PH<2
24	Sample	30	G2_3469	8260B2	280-81608-e-2 PH<2
25	Sample	31	G2_3470	8260B2	280-81608-f-3 PH<2
26	Sample	32	G2_3471	8260B2	280-81608-e-4 PH<2
27	Sample	33	G2_3472	8260B2	280-81608-f-5 PH<2
28	Sample	34	G2_3473	8260B2	280-81608-e-6 PH<2 E, RR @ 5mL
29	Sample	35	G2_3474	8260B2	280-81608-a-7 PH<2 E, RR @ 5mL
30	Sample	36	G2_3475	8260B2	280-81635-a-1 PH<2 SS↑↑↑↑, ND
31	Sample	37	G2_3476	8260B2	280-81635-f-2 PH<2
32	Sample	38	G2_3477	8260B2	280-81635-r-3 PH<2
33	Sample	39	G2_3478	8260B2	280-81635-n-3 MS PH<2
34	Sample	40	G2_3479	8260B2	280-81635-n-3 MSD PH<2
35	Sample	41	G2_3480	8260B2	280-81635-e-4 PH<2
36	Sample	42	G2_3481	8260B2	280-81635-f-5 PH<2
37	Sample	43	G2_3482	8260B2	pr
38	Sample	44	G2_3483	8260B2	pr

ADD 4/15/16

Last Modified: Fri Apr 15 06:15:01 2016 Page: 1

TestAmerica Laboratories
Worklist Report

Worklist Name: 041416PM Worklist Number: 45646
Instrument Name: VMS_G2 Chrom Method: AQ_VMSG2_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_G2\20160414-45646.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_G2
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00066 Amount Added: 0.800000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045646-001	# 1 BFB	MV-BFB_00020	BFB	voaWater	1.000000	uL	1.000000
280-0045646-002	# 2 CCV	MV-2cleve+AVA_00015 MV-Main A_00026 MV-Gas/Ket A_00044	CCV	voaWater	20.00	mL	1.000000
280-0045646-003	# 3 CCV	MV-Supp A_00018 MV-567649-D_00001	CCV	voaWater	20.00	mL	1.000000
280-0045646-004	# 4 LCS	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	LCS	voaWater	20.00	mL	1.000000
280-0045646-005	# 5 LCSD	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	LCSD	voaWater	20.00	mL	1.000000
280-0045646-006	# 6 MB		MB	voaWater	20.00	mL	1.000000
280-0045646-007	# 7 280-62974-A-1		Client	voaWater	20.00	mL	1.000000
280-0045646-008	# 8 280-62974-A-2		Client	voaWater	20.00	mL	1.000000
280-0045646-009	# 9 280-62974-A-3		Client	voaWater	20.00	mL	1.000000
280-0045646-010	#10 280-81433-A-3		Client	voaWater	20.00	mL	1.000000
280-0045646-011	#11 280-81433-A-4		Client	voaWater	20.00	mL	1.000000
280-0045646-012	#12 280-81721-C-1		Client	voaWater	20.00	mL	1.000000
280-0045646-013	#13 280-81721-D-2		Client	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045646-014	#14 280-81721-C-3		Client	voaWater	20.00	mL	4.000000
280-0045646-015	#15 280-81721-C-3		Client	voaWater	20.00	mL	40.00
280-0045646-016	#16 280-81721-K-4		Client	voaWater	20.00	mL	1.000000
280-0045646-017	#17 280-81721-H-4 MS	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	MS	voaWater	20.00	mL	1.000000
280-0045646-018	#18 280-81721-H-4 MSD	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	MSD	voaWater	20.00	mL	1.000000
280-0045646-019	#19 280-81721-K-4		Client	voaWater	20.00	mL	10.00
280-0045646-020	#20 280-81721-C-5		Client	voaWater	20.00	mL	1.000000
280-0045646-021	#21 280-81721-C-6		Client	voaWater	20.00	mL	1.000000
280-0045646-022	#22 280-81721-B-7		Client	voaWater	20.00	mL	1.000000
280-0045646-023	#23 CCVC	MV-Main A_00026 MV-Gas/Ket A_00044 MV-2cleve+AVA_00015	CCVC	voaWater	20.00	mL	1.000000
280-0045646-024	#24 280-81608-B-1		Client	voaWater	20.00	mL	1.000000
280-0045646-025	#25 280-81608-E-2		Client	voaWater	20.00	mL	1.000000
280-0045646-026	#26 280-81608-F-3		Client	voaWater	20.00	mL	1.000000
280-0045646-027	#27 280-81608-E-4		Client	voaWater	20.00	mL	1.000000
280-0045646-028	#28 280-81608-F-5		Client	voaWater	20.00	mL	1.000000
280-0045646-029	#29 280-81608-E-6		Client	voaWater	20.00	mL	1.000000
280-0045646-030	#30 280-81608-A-7		Client	voaWater	20.00	mL	1.000000
280-0045646-031	#31 280-81635-A-1		Client	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045646-032	#32 280-81635-F-2		Client	voaWater	20.00	mL	1.000000
280-0045646-033	#33 280-81635-R-3		Client	voaWater	20.00	mL	1.000000
280-0045646-034	#34 280-81635-N-3 MS	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	MS	voaWater	20.00	mL	1.000000
280-0045646-035	#35 280-81635-N-3 MSD	MV-SS 2-Cleve_00027 MV-Main B_00014 MV-Gas/Ket B_00026	MSD	voaWater	20.00	mL	1.000000
280-0045646-036	#36 280-81635-E-4		Client	voaWater	20.00	mL	1.000000
280-0045646-037	#37 280-81635-F-5		Client	voaWater	20.00	mL	1.000000

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MAIN/GTS/CLEV

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number:	Worklist #:	ICAL Event #:	ICIS/ICV Line #s:	Instrument ID:
320302	45515	25663	17	G2
Analyst/1st Reviewer: Date: DG 4/12/16	**Prep Method (circle):** ~~5030~~ 5035-L 5035-H		**Analytical Method (circle):** 624 ~~8260B~~ SIM Other_____	
QC Type (circle): ~~Standard~~ ~~DOD Q4~~ ~~DoD Q5~~ QAPP_____ Other_____				
Matrix (circle one): ~~Water~~ Solid			**Circle:** 5-mL ~~20-mL~~ Meth Ext 5 g	

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓ ✓		✓	
9. If regression fit used, is r^2 ≥0.990?				✓	
10. At least 6 consecutive points used for quadratic curves?	✓			✓	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			✓	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			✓	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
14. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)		✓		✓	
15. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
16.Isomeric pairs checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓		+	
17. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		+	acrolein -35.05%b
18. If any criteria from items 1-18 were not met, was a NCM generated & approved by supervisor?	+	✓		+	
19. Are all files and QC linked and processed correctly?		✓		+	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		+	
21. ICAL Date and Instrument ID verified?		✓		+	

Comments: _____

4/13/16

2nd Reviewer: _____ **Review Date:** 4-13-16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\041216.S
Comment:
Operator: ilczyszynd
Data Path: C:\MSDchem\1\data\041216\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (~~8260~~B/624) (Circle)
Purge Volume: (~~25~~mL/5mL/5g)
Tune Time: 901 - 1508 (Circle)
Lims Batch: 320302

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	G2_3351	BFB	BFB
2	Sample	10	G2_3352	8260B2	ccv
3	Sample	11	G2_3353	8260B2	ccv
4	Sample	100	G2_3355	BFB	bfb
5	Sample	10	G2_3356	8260B2	ccv
6	Sample	11	G2_3357	8260B2	ccv
7	Sample	100	G2_3360	BFB	bfb
8	Sample	100	G2_3362	BFB	bfb
9	Sample	10	G2_3363	8260B2	ic
10	Sample	11	G2_3364	8260B2	ic
11	Sample	12	G2_3365	8260B2	ic
12	Sample	13	G2_3366	8260B2	ic
13	Sample	14	G2_3367	8260B2	ic
14	Sample	15	G2_3368	8260B2	ic
15	Sample	16	G2_3369	8260B2	ic
16	Sample	17	G2_3370	8260B2	icv
17	Sample	18	G2_3361	8260B2	ic
18	Sample	19	G2_3373	8260B2	ic
19	Sample	20	G2_3374	8260B2	ic
20	Sample	21	G2_3375	8260B2	ic
21	Sample	22	G2_3376	8260B2	ic
22	Sample	23	G2_3377	8260B2	ic
23	Sample	24	G2_3378	8260B2	icv
24	Sample	25	G2_3379	8260B2	icv m
25	Sample	26	G2_3380	8260B2	pr
26	Sample	27	G2_3381	8260B2	pr
27					

SVOA/SURR

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 320302	Worklist #: 45515	ICAL Event #: 25662	ICIS/ICV Line #s: 21, 24	Instrument ID: 62
Analyst/1st Reviewer: Date: DQ 4/12/16	Prep Method (circle): ~~5030~~ 5035-L 5035-H		Analytical Method (circle): 624 ~~8260B~~ SIM Other_____	
QC Type (circle): ~~Standard~~ ~~DOD Q4~~ ~~DoD Q5~~	QAPP_____		Other_____	
Matrix (circle one): ~~Water~~ Solid			Circle: 5-mL ~~20-mL~~ Meth Ext 5 g	

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			✓	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			✓	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			✓	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
14. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)		✓		✓	
15. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
16.Isomeric pairs checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)					
17. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____					ethanol - 21.48 acetonitrile - 22.61 tert-butyl ethyl ether - 21.25 n-butanol - 25.64
18. If any criteria from items 1-18 were not met, was a NCM generated & approved by supervisor?					
19. Are all files and QC linked and processed correctly?					□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?					
21. ICAL Date and Instrument ID verified?					

Comments: _____

4/13/16

2nd Reviewer: _____ **Review Date:** 4-13-16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\041216.S
Comment:
Operator: ilczyszynd
Data Path: C:\MSDchem\1\data\041216\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (5mL/5mL/5g)
Tune Time: 901 - 1508 (Circle)
Lims Batch: 320302

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	G2_3351	BFB	BFB
2	Sample	10	G2_3352	8260B2	ccv
3	Sample	11	G2_3353	8260B2	ccv
4	Sample	100	G2_3355	BFB	bfb
5	Sample	10	G2_3356	8260B2	ccv
6	Sample	11	G2_3357	8260B2	ccv
7	Sample	100	G2_3360	BFB	bfb
8	Sample	100	G2_3362	BFB	bfb
9	Sample	10	G2_3363	8260B2	ic
10	Sample	11	G2_3364	8260B2	ic
11	Sample	12	G2_3365	8260B2	ic
12	Sample	13	G2_3366	8260B2	ic
13	Sample	14	G2_3367	8260B2	ic
14	Sample	15	G2_3368	8260B2	ic
15	Sample	16	G2_3369	8260B2	ic
16	Sample	17	G2_3370	8260B2	icv
17	Sample	18	G2_3361	8260B2	ic
18	Sample	19	G2_3373	8260B2	ic
19	Sample	20	G2_3374	8260B2	ic
20	Sample	21	G2_3375	8260B2	ic
21	Sample	22	G2_3376	8260B2	ic
22	Sample	23	G2_3377	8260B2	ic
23	Sample	24	G2_3378	8260B2	icv
24	Sample	25	G2_3379	8260B2	icv m
25	Sample	26	G2_3380	8260B2	pr
26	Sample	27	G2_3381	8260B2	pr
27					

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-81433-1

SDG No.:

Project: Griffiss AFB 1015-11-01 SVI

Client Sample ID	Lab Sample ID
774776CARBON040116	280-81433-1
785786CARBON040116	280-81433-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 774776CARBON040116 Lab Sample ID: 280-81433-1

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG ID.:

Matrix: Solid Date Sampled: 04/01/2016 13:05

Reporting Basis: WET Date Received: 04/02/2016 08:40

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ignitability	NO				No Unit			1	7.1.2

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 785786CARBON040116 Lab Sample ID: 280-81433-2

Lab Name: TestAmerica Denver Job No.: 280-81433-1

SDG ID.:

Matrix: Solid Date Sampled: 04/01/2016 12:55

Reporting Basis: WET Date Received: 04/02/2016 08:40

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: 280-81433-1

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.: 280-81433-1

SDG No.:

Instrument ID: NOEQUIP Method: 7.1.2

Start Date: 04/05/2016 16:23 End Date: 04/05/2016 16:23

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ign																			
ZZZZZZ			16:23																				
ZZZZZZ			16:23																				
280-81433-1	1	T	16:23	X																			
280-81433-2	1	T	16:23	X																			
ZZZZZZ			16:23																				
ZZZZZZ			16:23																				
ZZZZZZ			16:23																				
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ZZZZZZ			16:23																				
ZZZZZZ			16:23																				

Prep Types
T = Total/NA

Wet Chemistry Data Review Checklist Direct Measurement Methods (pH, Conductance, etc.)

Method(s): 7.1,2- / IGNITE	Instrument: N/A	SOP #: DV-WC-00103	Analyst: MWOOLLEY
Rn Date: 4/5/16	Prep Batch(s): N/A	Analytical Batch: 319515	

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 dilution factors, 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	MA
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 (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 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:	Date: 4/5/16	Analyst Comments:	
2nd Level Reviewer:	Date: 4/6/16	Reviewer Comments:	

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TestAmerica Denver

Ignitability of Solids for Waste Characterization Per 40 CFR 261.21

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
81503-1			✓		✓												✓
81503-1DU			✓		✓												✓
81433-1			✓		✓												✓
81433-2			✓		✓												✓
81507-1			✓		✓												✓
										4/5/16							

COMMENTS:

Analyst: _____ Date: 4/5/16 Batch # (optional): _____

Shipping and Receiving Documents

AFCEC
CHAIN OF CUSTODY RECORD

COC#: 1 SDG#: 1 Cooler ID: A

Ship to: Jessica DeHerrera Test America 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0165	Project Name: Griffiss AFB 1015-11-01 SVI TestAmerica Project Number: 28005987 Sampler Name: Karl Wilhelmsen	Send Results to: Karl Wilhelmsen FPM Remediations Inc 584 Phoenix Dr Rome, NY 13441 Phone: (315) 336-7721 Ext 227
Carrier: Fedex	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2016	Time	MATRIX	SMCODE	SBD/SED	SACODE	No. of Containers	VOCs (Note 1) 8 Oz. Glass Jar	Ignitibility Method 1030 4 Oz. Glass Jar	VOCs (Note 2) 40mL vial (HCl)	Comments
774776Carbon040116	774776-CarbonDrums	4/01	1305	S	G	0/0	N	2	1	1	-	VOCs according to TCLP for landfill disposal
785786Carbon040116	785786-CarbonDrums	4/01	1255	S	G	0/0	N	2	1	1	-	VOCs according to TCLP for landfill disposal
785786KOWater040116	785786-KOWater	4/01	1055	W	G	0/0	N	3	-	-	3	
040116TB	Trip Blank	4/01	1100	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)	Date: 4/1/16	#2 Released by: (Sig)	Date:	#3 Released by: (Sig)	Date:
Company Name: FPM Remediations, Inc	Time: 1600	Company Name: FPM Remediations Inc	Time:	Company Name:	Time:
#1 Received by: (Sig)	Date:	#2 Received by: (Sig)	Date: 4/2/16	#3 Received by: (Sig)	Date:
Company Name: FPM Remediations Inc	Time:	Company Name: TAD	Time: 0840	Company Name:	Time:

5.8-0.2 JR#7 transferred by DW 4/2/16

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

280-81433 Chain of Custody

Login Sample Receipt Checklist

Client: FPM Remediations Inc

Job Number: 280-81433-1

Login Number: 81433
List Number: 1
Creator: White, Denise E

List Source: TestAmerica Denver

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 (excluding tests with immediate HTs)	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	

Baldyga, Daniel

From: Wilhelmsen, Karl
Sent: Wednesday, June 29, 2016 3:23 PM
To: Baldyga, Daniel
Subject: FW: FPM - Composite Waste Water Sample

Categories: Red Category

See Matt Cappola's response below.

Karl Wilhelmsen
Junior Environmental Engineer
FPM Remediations, Inc.
k.wilhelmsen@fpm-remediations.com
315-371-5772

PLEASE NOTE OUR NEW ADDRESS:
181 Kenwood Avenue, Oneida, NY 13421

From: Matt Coppola [mailto:mcoppola@romecitygov.com]
Sent: Wednesday, June 29, 2016 3:18 PM
To: Wilhelmsen, Karl
Subject: RE: FPM - Composite Waste Water Sample

Karl,

I have reviewed the analytical and discharge will be allowed. After speaking with my supervisor (Rick Kenealy) you will be allowed to discharge to the 100 gallons into the sanitary line. If practical I would like to be there for the start of discharge. I will type up an official letter stating that you may discharge the 100 gallons of wastewater. Please let me know what dates work best for you or the crew of FPM. I am working the rest of this week 7:30AM until 3:30PM. Also, I need to touch bases with FPM so I can transition From PARSONS to FPM then to the USAF.

My office number is 315 339 7775 extension222

Thank you,
Matt Coppola
Industrial Pretreatment Coordinator
City of Rome New York

From: Wilhelmsen, Karl [mailto:k.wilhelmsen@fpm-remediations.com]
Sent: Tuesday, June 28, 2016 12:56 PM
To: Matt Coppola <mcoppola@romecitygov.com>
Cc: Baldyga, Daniel <d.baldyga@fpm-remediations.com>
Subject: RE: FPM - Composite Waste Water Sample

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	Disposed	Yes - Sampled on 08/13/13
23-Feb-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes - Sampled on 08/13/13
23-Apr-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes - Sampled on 08/13/13
5-Jul-12	SVE System (785 and 786)	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes - Sampled on 08/13/13o
17-Jul-12	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes - Sampled on 08/13/13
5-Sep-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes - Sampled on 08/13/13
4-Dec-12	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes - Sampled on 08/13/13
24-Apr-13	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes - Sampled on 08/13/13
13-Sep-13	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes – Sampled on 8/22/14
13-Jan-14	SVE System (774 and 776)	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes – Sampled on 08/22/14
20-May-14	SVE System (774 and 776	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes – Sampled on 08/22/14
24-Sept-14	SVE System (785 and 786)	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes – Sampled on 10/14/14
14-Oct-14	SVE System (774 and 776	Spent Carbon	Soil Vapor	110	55-gal drum	Disposed	Yes – Sampled on 10/14/14
26-Feb-15	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes – Sampled on 04/01/16
30-Sept-15	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Disposed	Yes – Sampled on 04/01/16
29-Jun-16	SVE System (774, 776, 785 and 786)	Spent Carbon	Soil Vapor	220	55-gal drum	Gieger Rd, FPM Storage Shed	

ENVIRONMENTAL PROD. & SVCS OF VT, INC.

532 STATE FAIR BLVD.
SYRACUSE, NY 13204

800-843-8265 FAX: 315-457-6652

Profile #: 0616415-DT Date: 06/23/2016
Approval #: 0616415-DT Date: 06/23/2016
Exp. Date: 06/23/2017

Generator Information:

EPA ID #: NY4571824451

AIR FORCE CIVIL ENGINEER CENTER ATTN DAVID
8 COLORADO STREET
PLATTSBURGH NY 12903

Site Information:

AIR FORCE CIVIL ENGINEER CENTER ATTN DAVID
584 PHOENIX DRIVE
ROME NY 13440

Technical Contact: DAN BALDYGA
Phone: 315-336-7721
Fax: N/A
County: ONEIDA

Name of Material: SPENT CARBON

JMS 6/23/16

Physical Characteristics of Material

Corrosivity	pH	N/A
Flash Point	°F	> 140
Physical State		Solid

Chemical Composition of Material (%)

Spent Carbon 0.00 - 100.00

Process Generating Material
CHANGE OUT OF SPENT CARBON FROM TCE SOIL VAPOR EXTRACTION SYSTEM

Additional Notes
SEE ATTACHED ANALYSIS

Manifest Information:

11. US DOT Description (Including Shipping Name, Hazard Class, and ID Number)	12. Containers	13. Total Quantity	14. Units	I. Waste No.
NON-RCRA, NON-DOT SOLIDS, N.O.S. (SPENT CARBON)		DM	P	

J. Additional Descriptions
APP #:0616415-DT, ___X___GAL

15. Special Handling Instructions and Additional Information

As Generator I certify that all of the above information is complete and accurate and the materials described herein is not a hazardous waste according to local, state or federal regulations. I further certify that I have the requisite knowledge either by testing, material characteristics or generation process that this is not a hazardous waste.

David Farnsworth AFCEC/CIBE		6/27/2016
Generator (Print)	Authorized Signature	Date
Facility Approval (Print)	Authorized Signature	Date

Environmental Products & Services of Vermont, Inc. is not permitted for and will not knowingly accept waste from small or large quantity generators. This profile/approval acknowledges the acceptability of the materials listed and acknowledges the facility noted above has the appropriate permit(s) as required by federal, state or local regulatory authorities to properly handle the materials.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-82226-1

Job Description: Griffiss AFB 1015-11-01 SVI

For:
FPM Remediations Inc
181 Kenwood Ave
Oneida, NY 13421

Attention: Daniel Baldyga

Approved for release.
Jessica H DeHerrera
Project Manager I
5/6/2016 11:36 AM

Jessica H DeHerrera, Project Manager I
4955 Yarrow Street, Arvada, CO, 80002
jessica.deherrera@testamericainc.com
05/06/2016

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.

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CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB 1015-11-01 SVI
Report Number: 280-82226-1

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
The samples were received on 04/20/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.1º C.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The Chain-of-Custody is signed as relinquished 4-29-16; however, samples were received on 4-20-16.

Both of the 40-mL VOA vials submitted for sample 041916TB (280-82226-4) contain an air bubble greater than 6mm in diameter. The laboratory will proceed with the requested analyses unless instructed otherwise. The client was notified on Thursday, April 21, 2016.

TCLP VOLATILE ORGANIC COMPOUNDS (GC/MS) - SOLID
Samples 774776CARBON041916 (280-82226-1), 785786CARBON041916 (280-82226-2) and B101CARBON041916 (280-82226-3) were analyzed for TCLP volatile organic compounds (GC/MS) in accordance with SW-846 1311/8260. The samples were leached on 04/22/2016 and analyzed on 05/01/2016.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for the matrix spike duplicate of sample 774776CARBON041916 (280-82226-1MSD). The parent sample's surrogate recovery was within limits. Additionally, the surrogate recovered within control for the laboratory control spike (LCS) and matrix spike (MS). The associated results have been flagged “Q”.

For the MSD of sample 774776CARBON041916 (280-82226-1) in batch 280-323371, Trichloroethene failed the recovery criteria low. 1,2-Dichloroethane and 2-Butanone (MEK) failed the recovery criteria high. Also, 1,1-Dichloroethene and Trichloroethene exceeded the RPD limit.. Sample matrix interference and/or non-homogeneity are suspected. The associated laboratory control sample (LCS) recoveries met acceptance criteria, and the sample results have been flagged accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS) - WATER
Sample 041916TB (280-82226-4) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/03/2016.

Methylene Chloride and Styrene were detected in method blank MB 280-323599/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. However, because the result concentrations were less than ½ the respective reporting limits, no corrective action was necessary.

Dibromofluoromethane (Surr) failed the surrogate recovery criteria low for LCS 280-323599/4 at 83% (limits 85-115%). All target analytes in both the LCS and LCS duplicate recovered within limits. The associated results have been flagged “Q”.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

IGNITABILITY
Sample B101CARBON041916 (280-82226-3) was analyzed for Ignitability in accordance with EPA SW-846 Method 7.1.2. The samples were analyzed on 04/21/2016.

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.: 280-82226-1

SDG No.:

Instrument ID: VMS_G2 Analysis Batch Number: 320302

Lab Sample ID: IC 280-320302/11 Client Sample ID:

Date Analyzed: 04/12/16 10:33 Lab File ID: G2_3364.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.21	Assign Peak	ilczyszyn d	04/12/16 12:04

Lab Sample ID: IC 280-320302/12 Client Sample ID:

Date Analyzed: 04/12/16 10:52 Lab File ID: G2_3365.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.22	Assign Peak	ilczyszyn d	04/12/16 12:06

Lab Sample ID: IC 280-320302/16 Client Sample ID:

Date Analyzed: 04/12/16 12:10 Lab File ID: G2_3369.D GC Column: DB-624 (60.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
m-Xylene & p-Xylene	9.83	Wrong peak	ilczyszyn d	04/12/16 12:48

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_H Analysis Batch Number: 321369

Lab Sample ID: IC 280-321369/10 Client Sample ID:

Date Analyzed: 04/18/16 22:46 Lab File ID: H3761.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	6.44	Unspecified		

Lab Sample ID: IC 280-321369/12 Client Sample ID:

Date Analyzed: 04/18/16 23:33 Lab File ID: H3763.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.72	Unspecified		

Lab Sample ID: IC 280-321369/13 Client Sample ID:

Date Analyzed: 04/18/16 23:59 Lab File ID: H3764.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.70	Unspecified		

Lab Sample ID: IC 280-321369/16 Client Sample ID:

Date Analyzed: 04/19/16 01:10 Lab File ID: H3767.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	7.71	Unspecified		

Lab Sample ID: IC 280-321369/18 Client Sample ID:

Date Analyzed: 04/19/16 02:44 Lab File ID: H3771.D GC Column: DB-624 (75.53 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	3.14	Unspecified		

SAMPLE SUMMARY

Client: FPM Remediations Inc

Job Number: 280-82226-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-82226-1	774776CARBON041916	Solid	04/19/2016 1240	04/20/2016 0915
280-82226-2	785786CARBON041916	Solid	04/19/2016 1345	04/20/2016 0915
280-82226-3	B101CARBON041916	Solid	04/19/2016 1430	04/20/2016 0915
280-82226-4	041916TB	Water	04/19/2016 1230	04/20/2016 0915

EXECUTIVE SUMMARY - Detections

Client: FPM Remediations Inc Job Number: 280-82226-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-82226-1	**774776CARBON041916**					
TCLP						
Chloroform		1.7	J	10	ug/L	8260B
Trichloroethene		6.1	J	10	ug/L	8260B
280-82226-2	**785786CARBON041916**					
TCLP						
Trichloroethene		3.2	J	10	ug/L	8260B
280-82226-3	**B101CARBON041916**					
Ignitability		NO			No Unit	7.1.2
TCLP						
Chloroform		5.1	J	10	ug/L	8260B
280-82226-4	**041916TB**					
Methylene Chloride		0.77	J	5.0	ug/L	8260C

METHOD SUMMARY

Client: FPM Remediations Inc Job Number: 280-82226-1

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: 280-82226-1

Method	Analyst	Analyst ID
SW846 8260B	Wickham, Tom A	TAW
SW846 8260C	Moan, Matthew R	MRM
SW846 7.1.2	Woolley, Mark -	MW1

Client: FPM Remediations Inc

Job Number: 280-82226-1

Client Sample ID: **774776CARBON041916**

Lab Sample ID: 280-82226-1
Client Matrix: Solid

Date Sampled: 04/19/2016 1240
Date Received: 04/20/2016 0915

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

Analysis Method:	8260B	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H4377.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1423			Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1423				
Leach Date:	04/22/2016 1633				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		4.0	U	1.6	10
2-Butanone (MEK)		64	U J	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		4.0	U	1.7	10
Chloroform		1.7	J	1.6	10
1,2-Dichloroethane		4.0	U J	1.3	10
1,1-Dichloroethene		8.0	U J	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		6.1	J	1.6	10
Vinyl chloride		2.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		64 - 129
Toluene-d8 (Surr)	96		78 - 120
4-Bromofluorobenzene (Surr)	100		78 - 121
Dibromofluoromethane (Surr)	99		79 - 119

Client: FPM Remediations Inc | Job Number: 280-82226-1

Client Sample ID: **785786CARBON041916**

Lab Sample ID: 280-82226-2 | Date Sampled: 04/19/2016 1345
Client Matrix: Solid | Date Received: 04/20/2016 0915

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

Analysis Method:	8260B	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H4380.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1534			Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1534				
Leach Date:	04/22/2016 1633				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		4.0	U	1.6	10
2-Butanone (MEK)		64	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		4.0	U	1.7	10
Chloroform		4.0	U	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		8.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		3.2	J	1.6	10
Vinyl chloride		2.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95		64 - 129
Toluene-d8 (Surr)	98		78 - 120
4-Bromofluorobenzene (Surr)	100		78 - 121
Dibromofluoromethane (Surr)	98		79 - 119

Client: FPM Remediations Inc

Job Number: 280-82226-1

Client Sample ID: **B101CARBON041916**

Lab Sample ID: 280-82226-3
Client Matrix: Solid

Date Sampled: 04/19/2016 1430
Date Received: 04/20/2016 0915

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

Analysis Method:	8260B	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	H4381.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1558			Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1558				
Leach Date:	04/22/2016 1633				

Analyte	DryWt Corrected: N	Result (ug/L)	Qualifier	DL	LOQ
Benzene		4.0	U	1.6	10
2-Butanone (MEK)		64	U	18	100
Carbon tetrachloride		4.0	U	1.9	10
Chlorobenzene		4.0	U	1.7	10
Chloroform		5.1	J	1.6	10
1,2-Dichloroethane		4.0	U	1.3	10
1,1-Dichloroethene		8.0	U	2.3	10
Tetrachloroethene		4.0	U	2.0	10
Trichloroethene		4.0	U	1.6	10
Vinyl chloride		2.0	U	1.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		64 - 129
Toluene-d8 (Surr)	118		78 - 120
4-Bromofluorobenzene (Surr)	100		78 - 121
Dibromofluoromethane (Surr)	102		79 - 119

Client Sample ID: 041916TB

Lab Sample ID: 280-82226-4 Date Sampled: 04/19/2016 1230
Client Matrix: Water Date Received: 04/20/2016 0915

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_4008.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 2104			Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 2104				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	0.79	3.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	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	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.40	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	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	160	U	71	220
1-Chlorohexane	0.40	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	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	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Cyclohexane	0.80	U	0.28	2.0
Dibromomethane	0.40	U	0.17	1.0

Client: FPM Remediations Inc

Job Number: 280-82226-1

Client Sample ID: 041916TB

Lab Sample ID: 280-82226-4
Client Matrix: Water

Date Sampled: 04/19/2016 1230
Date Received: 04/20/2016 0915

8260C Volatile Organic Compounds (GC/MS)

Analysis Method:	8260C	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_4008.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 2104			Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 2104				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Dichlorobromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	4.0	U	1.6	5.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylcyclohexane	0.80	U	0.36	2.0
Methylene Chloride	0.77	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	0.80	U	0.32	1.0
N-Propylbenzene	0.40	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	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115
Toluene-d8 (Surr)	96		85 - 120

General Chemistry

Client Sample ID: **B101CARBON041916**

Lab Sample ID: 280-82226-3 Date Sampled: 04/19/2016 1430
Client Matrix: Solid Date Received: 04/20/2016 0915

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

Analysis Batch: 280-322014 Analysis Date: 04/21/2016 2011 DryWt Corrected: N

Client: FPM Remediations Inc

Job Number: 280-82226-1

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
280-82226-1	774776CARBON041916	99	95	96	100
280-82226-2	785786CARBON041916	98	95	98	100
280-82226-3	B101CARBON041916	102	115	118	100
LB 280-322152/1-A		99	92	100	102
LCS 280-322152/2-A		100	116	108	105
280-82226-1 MS	774776CARBON041916 MS	101	107	103	95
280-82226-1 MSD	774776CARBON041916 MSD	106	130Q	101	95

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: 280-82226-1

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
280-82226-4	041916TB	98	104	96	97
MB 280-323599/6		106	110	108	110
LCS 280-323599/4		83Q	88	89	87
LCSD 280-323599/5		103	109	108	107

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: 280-82226-1

TCLP SPLPE Leachate Blank - Batch: 280-323371

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LB 280-322152/1-A	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H4375.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1336	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1336				
Leach Date:	04/22/2016 1633				

Analyte	Result	Qual	DL	LOQ
1,1-Dichloroethene	8.0	U	2.3	10
1,2-Dichloroethane	4.0	U	1.3	10
2-Butanone (MEK)	64	U	18	100
Benzene	4.0	U	1.6	10
Carbon tetrachloride	4.0	U	1.9	10
Chlorobenzene	4.0	U	1.7	10
Chloroform	4.0	U	1.6	10
Tetrachloroethene	4.0	U	2.0	10
Trichloroethene	4.0	U	1.6	10
Vinyl chloride	2.0	U	1.0	10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	64 - 129
4-Bromofluorobenzene (Surr)	102	78 - 121
Dibromofluoromethane (Surr)	99	79 - 119
Toluene-d8 (Surr)	100	78 - 120

Client: FPM Remediations Inc

Job Number: 280-82226-1

Lab Control Sample - Batch: 280-323371

Method: 8260B
Preparation: 5030B
TCLP

Lab Sample ID:	LCS 280-322152/2-A	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H4374.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1312	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1312				
Leach Date:	04/22/2016 1633				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethene	50.0	37.4	75	71 - 136	
1,2-Dichloroethane	50.0	62.4	125	70 - 135	
2-Butanone (MEK)	200	293	147	44 - 150	
Benzene	50.0	49.3	99	74 - 135	
Carbon tetrachloride	50.0	48.9	98	67 - 135	
Chlorobenzene	50.0	47.9	96	76 - 135	
Chloroform	50.0	51.4	103	76 - 120	
Tetrachloroethene	50.0	39.5	79	70 - 135	
Trichloroethene	50.0	46.5	93	73 - 135	
Vinyl chloride	50.0	45.6	91	40 - 144	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116	64 - 129
4-Bromofluorobenzene (Surr)	105	78 - 121
Dibromofluoromethane (Surr)	100	79 - 119
Toluene-d8 (Surr)	108	78 - 120

Client: FPM Remediations Inc

Job Number: 280-82226-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-323371

Method: 8260B
Preparation: 5030B
TCLP

MS Lab Sample ID:	280-82226-1	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H4378.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1447			Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1447				20 mL
Leach Date:	04/22/2016 1633				

MSD Lab Sample ID:	280-82226-1	Analysis Batch:	280-323371	Instrument ID:	VMS_H
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	H4379.D
Dilution:	1.0	Leach Batch:	280-322152	Initial Weight/Volume:	2 mL
Analysis Date:	05/01/2016 1510			Final Weight/Volume:	20 mL
Prep Date:	05/01/2016 1510				20 mL
Leach Date:	04/22/2016 1633				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1-Dichloroethene	96	75	71 - 136	25	20		J
1,2-Dichloroethane	115	137	70 - 135	17	20		Q J
2-Butanone (MEK)	146	174	44 - 150	18	32		J
Benzene	101	101	74 - 135	0	20		Q
Carbon tetrachloride	92	97	67 - 135	5	21		Q
Chlorobenzene	95	89	76 - 135	7	20		
Chloroform	97	104	76 - 120	6	20		
Tetrachloroethene	80	71	70 - 135	11	20		
Trichloroethene	93	70	73 - 135	25	20		Q J
Vinyl chloride	123	129	40 - 144	5	24		

Surrogate	MS % Rec	MSD % Rec		Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	130	Q	64 - 129
4-Bromofluorobenzene (Surr)	95	95		78 - 121
Dibromofluoromethane (Surr)	101	106		79 - 119
Toluene-d8 (Surr)	103	101		78 - 120

Client: FPM Remediations Inc

Job Number: 280-82226-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-323371

Method: 8260B
Preparation: 5030B
TCLP

MS Lab Sample ID:	280-82226-1	Units: ug/L	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	05/01/2016 1447		
Prep Date:	05/01/2016 1447		
Leach Date:	04/22/2016 1633		

MSD Lab Sample ID:	280-82226-1
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	05/01/2016 1510
Prep Date:	05/01/2016 1510
Leach Date:	04/22/2016 1633

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
1,1-Dichloroethene	8.0	U	50.0	50.0	48.0	37.4	J
1,2-Dichloroethane	4.0	U	50.0	50.0	57.6	68.3	Q J
2-Butanone (MEK)	64	U	200	200	291	347	J
Benzene	4.0	U	50.0	50.0	50.4	50.4	Q
Carbon tetrachloride	4.0	U	50.0	50.0	46.2	48.6	Q
Chlorobenzene	4.0	U	50.0	50.0	47.6	44.6	
Chloroform	1.7	J	50.0	50.0	50.2	53.5	
Tetrachloroethene	4.0	U	50.0	50.0	39.8	35.7	
Trichloroethene	6.1	J	50.0	50.0	52.5	41.0	Q J
Vinyl chloride	2.0	U	50.0	50.0	61.3	64.7	

Method Blank - Batch: 280-323599

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-323599/6	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3980.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1155	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1155				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.80	U	0.17	1.0
1,1,1-Trichloroethane	0.40	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.80	U	0.20	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	0.79	3.0
1,1,2-Trichloroethane	0.80	U	0.32	1.0
1,1-Dichloroethane	0.80	U	0.16	1.0
1,1-Dichloroethene	0.80	U	0.14	1.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,2,3-Trichlorobenzene	0.80	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	0.40	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,2-Dichlorobenzene	0.40	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	0.40	U	0.16	1.0
1,3-Dichloropropane	0.80	U	0.15	1.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,4-Dioxane	160	U	71	220
1-Chlorohexane	0.40	U	0.17	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Butanone (MEK)	4.0	U	1.8	6.0
2-Chlorotoluene	0.40	U	0.17	1.0
2-Hexanone	4.0	U	1.4	5.0
4-Chlorotoluene	0.80	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	0.40	U	0.16	1.0
Bromobenzene	0.40	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.80	U	0.21	2.0
Carbon disulfide	1.6	U	0.45	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Chlorobenzene	0.40	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroethane	1.6	U	0.41	2.0
Chloroform	0.40	U	0.16	1.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.40	U	0.15	1.0
cis-1,3-Dichloropropene	0.40	U	0.16	1.0
Cyclohexane	0.80	U	0.28	2.0

Client: FPM Remediations Inc

Job Number: 280-82226-1

Method Blank - Batch: 280-323599

Method: 8260C
Preparation: 5030B

Lab Sample ID:	MB 280-323599/6	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3980.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1155	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1155				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.40	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.40	U	0.16	1.0
Ethylene Dibromide	0.40	U	0.18	1.0
Hexachlorobutadiene	0.80	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Methyl acetate	4.0	U	1.6	5.0
Methyl tert-butyl ether	0.80	U	0.25	5.0
Methylcyclohexane	0.80	U	0.36	2.0
Methylene Chloride	0.792	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	0.80	U	0.32	1.0
N-Propylbenzene	0.40	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
Styrene	0.175	J	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	0.40	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Trichloroethene	0.40	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.20	U	0.10	1.5

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	70 - 120
4-Bromofluorobenzene (Surr)	110	75 - 120
Dibromofluoromethane (Surr)	106	85 - 115
Toluene-d8 (Surr)	108	85 - 120

Client: FPM Remediations Inc

Job Number: 280-82226-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-323599

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-323599/4	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3981.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1214	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1214				20 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-323599/5	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3979.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1135	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1135				20 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	87	98	80 - 130	12	30		
1,1,1-Trichloroethane	91	100	65 - 130	9	30	Q	
1,1,2,2-Tetrachloroethane	90	107	65 - 130	17	30		
1,1,2-Trichloroethane	85	100	75 - 125	17	30		
1,1-Dichloroethane	89	100	70 - 135	11	30		
1,1-Dichloroethene	86	94	70 - 130	9	30	Q	
1,1-Dichloropropene	95	105	75 - 130	11	30		
1,2,3-Trichlorobenzene	77	92	55 - 140	17	30		
1,2,3-Trichloropropane	87	103	75 - 125	16	30		
1,2,4-Trichlorobenzene	87	98	65 - 135	11	30		
1,2,4-Trimethylbenzene	102	113	75 - 130	11	30		
1,2-Dibromo-3-Chloropropane	76	95	50 - 130	23	30	J	J
1,2-Dichlorobenzene	90	103	70 - 120	13	30		
1,2-Dichloroethane	88	101	70 - 130	14	30		
1,2-Dichloropropane	94	108	75 - 125	14	30		
1,3,5-Trimethylbenzene	105	117	75 - 130	11	30		
1,3-Dichlorobenzene	92	103	75 - 125	11	30		
1,3-Dichloropropane	90	104	75 - 125	14	30		
1,4-Dichlorobenzene	92	103	75 - 125	11	30		
2,2-Dichloropropane	93	101	70 - 135	7	30	Q	
2-Butanone (MEK)	93	110	30 - 150	17	30		
2-Chlorotoluene	99	109	75 - 125	10	30		
2-Hexanone	88	107	55 - 130	19	30		
4-Chlorotoluene	98	110	75 - 130	11	30		
4-Isopropyltoluene	106	118	75 - 130	11	30		
4-Methyl-2-pentanone (MIBK)	89	107	60 - 135	18	30		
Acetone	96	111	40 - 140	14	30	Q	
Benzene	94	106	80 - 120	11	30		
Bromobenzene	92	105	75 - 125	14	30		
Bromoform	82	97	70 - 130	17	30		
Bromomethane	79	94	30 - 145	17	30		
Carbon disulfide	88	98	35 - 160	11	30		
Carbon tetrachloride	91	101	65 - 140	10	30		
Chlorobenzene	91	102	80 - 120	11	30		
Chlorobromomethane	82	94	65 - 130	14	30	Q	
Chlorodibromomethane	84	96	60 - 135	14	30		

Client: FPM Remediations Inc

Job Number: 280-82226-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-323599

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-323599/4	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3981.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1214	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1214				20 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-323599/5	Analysis Batch:	280-323599	Instrument ID:	VMS_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_3979.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	05/03/2016 1135	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	05/03/2016 1135				20 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroethane	92	112	60 - 135	20	30	Q	
Chloroform	92	102	65 - 135	11	30	Q	
Chloromethane	97	107	40 - 125	9	30	Q	
cis-1,2-Dichloroethene	91	102	70 - 125	12	30	Q	
cis-1,3-Dichloropropene	91	106	70 - 130	15	30		
Dibromomethane	84	97	75 - 125	14	30		
Dichlorobromomethane	90	102	75 - 120	12	30		
Dichlorodifluoromethane	101	114	30 - 155	12	30	Q	
Ethylbenzene	95	105	75 - 125	10	30		
Ethylene Dibromide	85	99	80 - 120	15	30		
Hexachlorobutadiene	93	102	50 - 140	9	30		
Isopropylbenzene	109	122	75 - 125	11	30		
Methyl tert-butyl ether	83	99	65 - 125	18	30	J	J
Methylene Chloride	96	112	55 - 140	16	30	J Q	
m-Xylene & p-Xylene	96	107	75 - 130	11	30		
Naphthalene	75	88	55 - 140	16	30		
n-Butylbenzene	107	118	70 - 135	10	30		
N-Propylbenzene	104	116	70 - 130	11	30		
o-Xylene	93	103	80 - 120	10	30		
sec-Butylbenzene	102	113	70 - 125	11	30		
Styrene	79	90	65 - 135	13	30		
tert-Butylbenzene	103	116	70 - 130	12	30		
Tetrachloroethene	88	98	45 - 150	12	30		
Toluene	102	115	75 - 120	12	30		
trans-1,2-Dichloroethene	92	99	60 - 140	8	30		
trans-1,3-Dichloropropene	86	102	55 - 140	17	30		
Trichloroethene	94	106	70 - 125	12	30		
Trichlorofluoromethane	95	106	60 - 145	11	30		
Vinyl chloride	99	109	50 - 145	10	30	Q	

Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		109	70 - 120
4-Bromofluorobenzene (Surr)	87		107	75 - 120
Dibromofluoromethane (Surr)	83	Q	103	85 - 115
Toluene-d8 (Surr)	89		108	85 - 120

Client: FPM Remediations Inc

Job Number: 280-82226-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-323599

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-323599/4	Units: ug/L	LCSD Lab Sample ID:	LCSD 280-323599/5	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	05/03/2016 1214		Analysis Date:	05/03/2016 1135	
Prep Date:	05/03/2016 1214		Prep Date:	05/03/2016 1135	
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	4.35		4.88	
1,1,1-Trichloroethane	5.00	5.00	4.54	Q	4.98	
1,1,2,2-Tetrachloroethane	5.00	5.00	4.51		5.36	
1,1,2-Trichloroethane	5.00	5.00	4.23		4.99	
1,1-Dichloroethane	5.00	5.00	4.46		4.98	
1,1-Dichloroethene	5.00	5.00	4.29	Q	4.70	
1,1-Dichloropropene	5.00	5.00	4.73		5.26	
1,2,3-Trichlorobenzene	5.00	5.00	3.87		4.58	
1,2,3-Trichloropropane	5.00	5.00	4.37		5.14	
1,2,4-Trichlorobenzene	5.00	5.00	4.36		4.89	
1,2,4-Trimethylbenzene	5.00	5.00	5.08		5.67	
1,2-Dibromo-3-Chloropropane	5.00	5.00	3.79	J	4.76	J
1,2-Dichlorobenzene	5.00	5.00	4.51		5.13	
1,2-Dichloroethane	5.00	5.00	4.39		5.06	
1,2-Dichloropropane	5.00	5.00	4.72		5.41	
1,3,5-Trimethylbenzene	5.00	5.00	5.25		5.86	
1,3-Dichlorobenzene	5.00	5.00	4.61		5.16	
1,3-Dichloropropane	5.00	5.00	4.50		5.18	
1,4-Dichlorobenzene	5.00	5.00	4.61		5.13	
2,2-Dichloropropane	5.00	5.00	4.67	Q	5.03	
2-Butanone (MEK)	20.0	20.0	18.6		21.9	
2-Chlorotoluene	5.00	5.00	4.94		5.47	
2-Hexanone	20.0	20.0	17.6		21.4	
4-Chlorotoluene	5.00	5.00	4.90		5.49	
4-Isopropyltoluene	5.00	5.00	5.30		5.90	
4-Methyl-2-pentanone (MIBK)	20.0	20.0	17.9		21.5	
Acetone	20.0	20.0	19.3	Q	22.2	
Benzene	5.00	5.00	4.72		5.28	
Bromobenzene	5.00	5.00	4.59		5.27	
Bromoform	5.00	5.00	4.09		4.87	
Bromomethane	5.00	5.00	3.97		4.71	
Carbon disulfide	5.00	5.00	4.39		4.88	
Carbon tetrachloride	5.00	5.00	4.57		5.03	
Chlorobenzene	5.00	5.00	4.56		5.08	
Chlorobromomethane	5.00	5.00	4.09	Q	4.69	
Chlorodibromomethane	5.00	5.00	4.20		4.82	
Chloroethane	5.00	5.00	4.59	Q	5.59	
Chloroform	5.00	5.00	4.58	Q	5.11	
Chloromethane	5.00	5.00	4.86	Q	5.34	

Client: FPM Remediations Inc

Job Number: 280-82226-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-323599

Method: 8260C
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-323599/4	Units: ug/L	LCSD Lab Sample ID:	LCSD 280-323599/5	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	05/03/2016 1214		Analysis Date:	05/03/2016 1135	
Prep Date:	05/03/2016 1214		Prep Date:	05/03/2016 1135	
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	4.55	Q	5.12	
cis-1,3-Dichloropropene	5.00	5.00	4.55		5.30	
Dibromomethane	5.00	5.00	4.20		4.84	
Dichlorobromomethane	5.00	5.00	4.49		5.08	
Dichlorodifluoromethane	5.00	5.00	5.07	Q	5.70	
Ethylbenzene	5.00	5.00	4.73		5.23	
Ethylene Dibromide	5.00	5.00	4.25		4.93	
Hexachlorobutadiene	5.00	5.00	4.67		5.09	
Isopropylbenzene	5.00	5.00	5.45		6.10	
Methyl tert-butyl ether	5.00	5.00	4.14	J	4.95	J
Methylene Chloride	5.00	5.00	4.80	J Q	5.62	
m-Xylene & p-Xylene	5.00	5.00	4.81		5.37	
Naphthalene	5.00	5.00	3.75		4.39	
n-Butylbenzene	5.00	5.00	5.36		5.91	
N-Propylbenzene	5.00	5.00	5.20		5.80	
o-Xylene	5.00	5.00	4.67		5.17	
sec-Butylbenzene	5.00	5.00	5.08		5.65	
Styrene	5.00	5.00	3.97		4.50	
tert-Butylbenzene	5.00	5.00	5.17		5.82	
Tetrachloroethene	5.00	5.00	4.38		4.92	
Toluene	5.00	5.00	5.09		5.75	
trans-1,2-Dichloroethene	5.00	5.00	4.58		4.97	
trans-1,3-Dichloropropene	5.00	5.00	4.28		5.08	
Trichloroethene	5.00	5.00	4.69		5.29	
Trichlorofluoromethane	5.00	5.00	4.74		5.29	
Vinyl chloride	5.00	5.00	4.94	Q	5.44	

DATA REPORTING QUALIFIERS

Client: FPM Remediations Inc Job Number: 280-82226-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	Q	One or more quality control criteria failed.
	U	Undetected at the Limit of Detection.

Client: FPM Remediations Inc

Job Number: 280-82226-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-322152					
LCS 280-322152/2-A	Lab Control Sample	P	Solid	1311	
LB 280-322152/1-A	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-82226-1	774776CARBON041916	P	Solid	1311	
280-82226-1MS	Matrix Spike	P	Solid	1311	
280-82226-1MSD	Matrix Spike Duplicate	P	Solid	1311	
280-82226-2	785786CARBON041916	P	Solid	1311	
280-82226-3	B101CARBON041916	P	Solid	1311	
Analysis Batch:280-323371					
LCS 280-322152/2-A	Lab Control Sample	P	Solid	8260B	
LB 280-322152/1-A	TCLP SPLPE Leachate Blank	P	Solid	8260B	
280-82226-1	774776CARBON041916	P	Solid	8260B	
280-82226-1MS	Matrix Spike	P	Solid	8260B	
280-82226-1MSD	Matrix Spike Duplicate	P	Solid	8260B	
280-82226-2	785786CARBON041916	P	Solid	8260B	
280-82226-3	B101CARBON041916	P	Solid	8260B	
Analysis Batch:280-323599					
LCS 280-323599/4	Lab Control Sample	T	Water	8260C	
LCSD 280-323599/5	Lab Control Sample Duplicate	T	Water	8260C	
MB 280-323599/6	Method Blank	T	Water	8260C	
280-82226-4	041916TB	T	Water	8260C	

Report Basis
P = TCLP
T = Total

General Chemistry

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Analysis Batch:280-322014					
280-82226-3	B101CARBON041916	T	Solid	7.1.2	

Report Basis
T = Total

Client: FPM Remediations Inc Job Number: 280-82226-1

Laboratory Chronicle

Lab ID: 280-82226-1 **Client ID: 774776CARBON041916**

Sample Date/Time: 04/19/2016 12:40 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-A-1-A		280-323371		05/01/2016 14:23	1	TAL DEN	TAW
A:8260B	280-82226-A-1-A		280-323371		05/01/2016 14:23	1	TAL DEN	TAW

Lab ID: 280-82226-1 MS **Client ID: 774776CARBON041916**

Sample Date/Time: 04/19/2016 12:40 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-A-1-A MS		280-323371		05/01/2016 14:47	1	TAL DEN	TAW
A:8260B	280-82226-A-1-A MS		280-323371		05/01/2016 14:47	1	TAL DEN	TAW

Lab ID: 280-82226-1 MSD **Client ID: 774776CARBON041916**

Sample Date/Time: 04/19/2016 12:40 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-A-1-A MSD		280-323371		05/01/2016 15:10	1	TAL DEN	TAW
A:8260B	280-82226-A-1-A MSD		280-323371		05/01/2016 15:10	1	TAL DEN	TAW

Lab ID: 280-82226-2 **Client ID: 785786CARBON041916**

Sample Date/Time: 04/19/2016 13:45 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-A-2-A		280-323371		05/01/2016 15:34	1	TAL DEN	TAW
A:8260B	280-82226-A-2-A		280-323371		05/01/2016 15:34	1	TAL DEN	TAW

Lab ID: 280-82226-3 **Client ID: B101CARBON041916**

Sample Date/Time: 04/19/2016 14:30 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-B-3-A		280-323371		05/01/2016 15:58	1	TAL DEN	TAW
A:8260B	280-82226-B-3-A		280-323371		05/01/2016 15:58	1	TAL DEN	TAW
A:7.1.2	280-82226-A-3		280-322014		04/21/2016 20:11	1	TAL DEN	MW1

Client: FPM Remediations Inc Job Number: 280-82226-1

Laboratory Chronicle

Lab ID: 280-82226-4 **Client ID: 041916TB**

Sample Date/Time: 04/19/2016 12:30 Received Date/Time: 04/20/2016 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-82226-A-4		280-323599		05/03/2016 21:04	1	TAL DEN	MRM
A:8260C	280-82226-A-4		280-323599		05/03/2016 21:04	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 280-323599/6		280-323599		05/03/2016 11:55	1	TAL DEN	MRM
A:8260C	MB 280-323599/6		280-323599		05/03/2016 11:55	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 280-322152/1-A		280-323371		05/01/2016 13:36	1	TAL DEN	TAW
A:8260B	LB 280-322152/1-A		280-323371		05/01/2016 13:36	1	TAL DEN	TAW

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 280-322152/2-A		280-323371		05/01/2016 13:12	1	TAL DEN	TAW
A:8260B	LCS 280-322152/2-A		280-323371		05/01/2016 13:12	1	TAL DEN	TAW
P:5030B	LCS 280-323599/4		280-323599		05/03/2016 12:14	1	TAL DEN	MRM
A:8260C	LCS 280-323599/4		280-323599		05/03/2016 12:14	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 280-323599/5		280-323599		05/03/2016 11:35	1	TAL DEN	MRM
A:8260C	LCSD 280-323599/5		280-323599		05/03/2016 11:35	1	TAL DEN	MRM

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-2cleve+AVA_00015	04/30/16	01/01/16	P&T Methanol, Lot 118655	20 mL	MV-568720_00010	405 uL	Acrolein	399.938 ug/mL
					MV-569723_00001	320 uL	2-Chloroethyl vinyl ether	40 ug/mL
					MV-569724_00004	320 uL	Vinyl acetate	80 ug/mL
.MV-568720_00010	04/30/16	RESTEK, Lot A0115761			(Purchased Reagent)		Acrolein	19750 ug/mL
.MV-569723_00001	04/30/18	RESTEK, Lot A0110788			(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.MV-569724_00004	06/30/16	RESTEK, Lot A0115764			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
MV-567649-D_00001	02/28/18	RESTEK, Lot A093504			(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-568718-D_00006	03/31/20	RESTEK, Lot A0110961			(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_00066	09/14/16	02/22/16	P&T Methanol, Lot 118655	50 mL	MV-567650_00023	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_00023	07/31/20	Restek, Lot A0112455			(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_00067	10/19/16	04/19/16	P&T Methanol, Lot 127999	50 mL	MV-567650_00023	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_00023	07/31/20	Restek, Lot A0112455			(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_00044	09/16/16	03/16/16	P&T Methanol, Lot 118655	10 mL	MV-569721_00002	128 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-569722_00001	160 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-569727_00002	640 uL	Cyclohexanone	1600 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MV-569721_00002	08/31/18		RESTEK, Lot A0113194		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722_00001	04/30/18		RESTEK, Lot A0110070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569727_00002	04/30/18		RESTEK, Lot A0110092		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
MV-Gas/Ket A_00045	10/11/16	04/11/16	P&T Methanol, Lot 118655	10 mL	MV-569721_00002	128 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-569722_00003	160 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-569727_00002	640 uL	Cyclohexanone	1600 ug/mL
.MV-569721_00002	08/31/18		RESTEK, Lot A0113194		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722_00003	10/31/18		RESTEK, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.MV-569727_00002	04/30/18		RESTEK, Lot A0110092		(Purchased Reagent)		Cyclohexanone	25000 ug/mL
MV-Gas/Ket A_00046	10/29/16	04/29/16	P&T Methanol, Lot 118655	10 mL	MV-569721_00002	128 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-569722_00003	160 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	40 ug/mL
.MV-569721_00002	08/31/18		RESTEK, Lot A0113194		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722_00003	10/31/18		RESTEK, Lot A0115012		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
MV-Gas/Ket B_00026	09/16/16	03/16/16	P&T Methanol, Lot 118655	10 mL	MV-569721.sec_00002	128 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-569722.sec_00002	160 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-569721.sec_00002	07/31/18		RESTEK, Lot A0112937		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MV-569722.sec_00002	08/31/18		RESTEK, Lot A0113063		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
MV-Main A_00026	09/01/16	03/01/16	P&T Methanol, Lot 118655	25 mL	MV-569720_00001	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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-CUS17739_00001	500 uL	1-Chlorohexane	20 ug/mL
							2-Pentanone	80 ug/mL
							sec-Butyl Alcohol	600 ug/mL
.MV-569720_00001	01/31/17		RESTEK, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.MV-CUS17739_00001	07/31/17		RESTEK, Lot CM-3152		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
							2-Pentanone	4000 ug/mL
							sec-Butyl Alcohol	30000 ug/mL
MV-Main B_00014	08/01/16	02/01/16	P&T Methanol, Lot 85233	20 mL	MV-569720.sec_00001	320 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-CUS17739.s_00001	800 uL	1-Chlorohexane	40 ug/mL
.MV-569720.sec_00001	01/31/17		RESTEK, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.MV-CUS17739.s_00001	07/31/17		RESTEK, Lot CM-3155		(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
MV-Supp A_00018	06/30/16	01/01/16	P&T Methanol, Lot 118655	10 mL	mv-569725_00004	160 uL	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
					mv-569728_00001	200 uL	Acetonitrile	500 ug/mL
							Ethanol	2000 ug/mL
							Isopropyl ether	50 ug/mL
							Propionitrile	500 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					mv-S68336_00001	800 uL	cis-1,4-Dichloro-2-butene	80 ug/mL
							Propene oxide	4000 ug/mL
.mv-569725_00004	06/30/16		Restek, Lot A0115808		(Purchased Reagent)		2-Chloro-1,3-butadiene	2500 ug/mL
							2-Nitropropane	5000 ug/mL
							Ethyl acetate	5000 ug/mL
							Isopropyl alcohol	25000 ug/mL
							Methacrylonitrile	25000 ug/mL
							Methyl methacrylate	5000 ug/mL
.mv-569728_00001	01/31/17		RESTEK, Lot A0108216		(Purchased Reagent)		Acetonitrile	25000 ug/mL
							Ethanol	100000 ug/mL
							Isopropyl ether	2500 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	2500 ug/mL
							Tert-butyl ethyl ether	2500 ug/mL
.mv-S68336_00001	08/04/16		AccuStandard, Lot 215071432		(Purchased Reagent)		cis-1,4-Dichloro-2-butene	1000 ug/mL
							Propene oxide	50000 ug/mL

Certification Summary

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

TestAmerica Job ID: 280-82226-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	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	Connecticut	State Program	1	PH-0686
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 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	T104704183-15-11
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.: 280-82226-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): DB-624 (75. ID: 0.53(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
774776CARBON041916	280-82226-1	99	95	96	100
785786CARBON041916	280-82226-2	98	95	98	100
B101CARBON041916	280-82226-3	102	115	118	100
	LB 280-322152/1-A	99	92	100	102
	LCS 280-322152/2-A	100	116	108	105
774776CARBON041916 MS	280-82226-1 MS	101	107	103	95
774776CARBON041916 MSD	280-82226-1 MSD	106	130 Q	101	95

	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 II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 (60. ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
041916TB	280-82226-4	98	104	96	97
	MB 280-323599/6	106	110	108	110
	LCS 280-323599/4	83 Q	88	89	87
	LCSD 280-323599/5	103	109	108	107

	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.: 280-82226-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: H4374.D

Lab ID: LCS 280-322152/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1-Dichloroethene	50.0	37.4	75	71-136	
1,2-Dichloroethane	50.0	62.4	125	70-135	
2-Butanone (MEK)	200	293	147	44-150	
Benzene	50.0	49.3	99	74-135	
Carbon tetrachloride	50.0	48.9	98	67-135	
Chlorobenzene	50.0	47.9	96	76-135	
Chloroform	50.0	51.4	103	76-120	
Tetrachloroethene	50.0	39.5	79	70-135	
Trichloroethene	50.0	46.5	93	73-135	
Vinyl chloride	50.0	45.6	91	40-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: H4378.D

Lab ID: 280-82226-1 MS Client ID: 774776CARBON041916 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1-Dichloroethene	50.0	8.0 U	48.0	96	71-136	
1,2-Dichloroethane	50.0	4.0 U	57.6	115	70-135	
2-Butanone (MEK)	200	64 U	291	146	44-150	
Benzene	50.0	4.0 U	50.4	101	74-135	
Carbon tetrachloride	50.0	4.0 U	46.2	92	67-135	
Chlorobenzene	50.0	4.0 U	47.6	95	76-135	
Chloroform	50.0	1.7 J	50.2	97	76-120	
Tetrachloroethene	50.0	4.0 U	39.8	80	70-135	
Trichloroethene	50.0	6.1 J	52.5	93	73-135	
Vinyl chloride	50.0	2.0 U	61.3	123	40-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: H4379.D

Lab ID: 280-82226-1 MSD Client ID: 774776CARBON041916 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1-Dichloroethene	50.0	37.4	75	25	20	71-136	J
1,2-Dichloroethane	50.0	68.3	137	17	20	70-135	Q J
2-Butanone (MEK)	200	347	174	18	32	44-150	J
Benzene	50.0	50.4	101	0	20	74-135	Q
Carbon tetrachloride	50.0	48.6	97	5	21	67-135	Q
Chlorobenzene	50.0	44.6	89	7	20	76-135	
Chloroform	50.0	53.5	104	6	20	76-120	
Tetrachloroethene	50.0	35.7	71	11	20	70-135	
Trichloroethene	50.0	41.0	70	25	20	73-135	Q J
Vinyl chloride	50.0	64.7	129	5	24	40-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3981.D

Lab ID: LCS 280-323599/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.35	87	80-130	
1,1,1-Trichloroethane	5.00	4.54	91	65-130	Q
1,1,2,2-Tetrachloroethane	5.00	4.51	90	65-130	
1,1,2-Trichloroethane	5.00	4.23	85	75-125	
1,1-Dichloroethane	5.00	4.46	89	70-135	
1,1-Dichloroethene	5.00	4.29	86	70-130	Q
1,1-Dichloropropene	5.00	4.73	95	75-130	
1,2,3-Trichlorobenzene	5.00	3.87	77	55-140	
1,2,3-Trichloropropane	5.00	4.37	87	75-125	
1,2,4-Trichlorobenzene	5.00	4.36	87	65-135	
1,2,4-Trimethylbenzene	5.00	5.08	102	75-130	
1,2-Dibromo-3-Chloropropane	5.00	3.79 J	76	50-130	
1,2-Dichlorobenzene	5.00	4.51	90	70-120	
1,2-Dichloroethane	5.00	4.39	88	70-130	
1,2-Dichloropropane	5.00	4.72	94	75-125	
1,3,5-Trimethylbenzene	5.00	5.25	105	75-130	
1,3-Dichlorobenzene	5.00	4.61	92	75-125	
1,3-Dichloropropane	5.00	4.50	90	75-125	
1,4-Dichlorobenzene	5.00	4.61	92	75-125	
2,2-Dichloropropane	5.00	4.67	93	70-135	Q
2-Butanone (MEK)	20.0	18.6	93	30-150	
2-Chlorotoluene	5.00	4.94	99	75-125	
2-Hexanone	20.0	17.6	88	55-130	
4-Chlorotoluene	5.00	4.90	98	75-130	
4-Isopropyltoluene	5.00	5.30	106	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	17.9	89	60-135	
Acetone	20.0	19.3	96	40-140	Q
Benzene	5.00	4.72	94	80-120	
Bromobenzene	5.00	4.59	92	75-125	
Bromoform	5.00	4.09	82	70-130	
Bromomethane	5.00	3.97	79	30-145	
Carbon disulfide	5.00	4.39	88	35-160	
Carbon tetrachloride	5.00	4.57	91	65-140	
Chlorobenzene	5.00	4.56	91	80-120	
Chlorobromomethane	5.00	4.09	82	65-130	Q
Chlorodibromomethane	5.00	4.20	84	60-135	
Chloroethane	5.00	4.59	92	60-135	Q
Chloroform	5.00	4.58	92	65-135	Q
Chloromethane	5.00	4.86	97	40-125	Q
cis-1,2-Dichloroethene	5.00	4.55	91	70-125	Q
cis-1,3-Dichloropropene	5.00	4.55	91	70-130	
Dibromomethane	5.00	4.20	84	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.: 280-82226-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3981.D

Lab ID: LCS 280-323599/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorobromomethane	5.00	4.49	90	75-120	
Dichlorodifluoromethane	5.00	5.07	101	30-155	Q
Ethylbenzene	5.00	4.73	95	75-125	
Ethylene Dibromide	5.00	4.25	85	80-120	
Hexachlorobutadiene	5.00	4.67	93	50-140	
Isopropylbenzene	5.00	5.45	109	75-125	
Methyl tert-butyl ether	5.00	4.14 J	83	65-125	
Methylene Chloride	5.00	4.80 J	96	55-140	Q
m-Xylene & p-Xylene	5.00	4.81	96	75-130	
Naphthalene	5.00	3.75	75	55-140	
n-Butylbenzene	5.00	5.36	107	70-135	
N-Propylbenzene	5.00	5.20	104	70-130	
o-Xylene	5.00	4.67	93	80-120	
sec-Butylbenzene	5.00	5.08	102	70-125	
Styrene	5.00	3.97	79	65-135	
tert-Butylbenzene	5.00	5.17	103	70-130	
Tetrachloroethene	5.00	4.38	88	45-150	
Toluene	5.00	5.09	102	75-120	
trans-1,2-Dichloroethene	5.00	4.58	92	60-140	
trans-1,3-Dichloropropene	5.00	4.28	86	55-140	
Trichloroethene	5.00	4.69	94	70-125	
Trichlorofluoromethane	5.00	4.74	95	60-145	
Vinyl chloride	5.00	4.94	99	50-145	Q

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.: 280-82226-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3979.D

Lab ID: LCSD 280-323599/5 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	4.88	98	12	30	80-130	
1,1,1-Trichloroethane	5.00	4.98	100	9	30	65-130	
1,1,2,2-Tetrachloroethane	5.00	5.36	107	17	30	65-130	
1,1,2-Trichloroethane	5.00	4.99	100	17	30	75-125	
1,1-Dichloroethane	5.00	4.98	100	11	30	70-135	
1,1-Dichloroethene	5.00	4.70	94	9	30	70-130	
1,1-Dichloropropene	5.00	5.26	105	11	30	75-130	
1,2,3-Trichlorobenzene	5.00	4.58	92	17	30	55-140	
1,2,3-Trichloropropane	5.00	5.14	103	16	30	75-125	
1,2,4-Trichlorobenzene	5.00	4.89	98	11	30	65-135	
1,2,4-Trimethylbenzene	5.00	5.67	113	11	30	75-130	
1,2-Dibromo-3-Chloropropane	5.00	4.76 J	95	23	30	50-130	
1,2-Dichlorobenzene	5.00	5.13	103	13	30	70-120	
1,2-Dichloroethane	5.00	5.06	101	14	30	70-130	
1,2-Dichloropropane	5.00	5.41	108	14	30	75-125	
1,3,5-Trimethylbenzene	5.00	5.86	117	11	30	75-130	
1,3-Dichlorobenzene	5.00	5.16	103	11	30	75-125	
1,3-Dichloropropane	5.00	5.18	104	14	30	75-125	
1,4-Dichlorobenzene	5.00	5.13	103	11	30	75-125	
2,2-Dichloropropane	5.00	5.03	101	7	30	70-135	
2-Butanone (MEK)	20.0	21.9	110	17	30	30-150	
2-Chlorotoluene	5.00	5.47	109	10	30	75-125	
2-Hexanone	20.0	21.4	107	19	30	55-130	
4-Chlorotoluene	5.00	5.49	110	11	30	75-130	
4-Isopropyltoluene	5.00	5.90	118	11	30	75-130	
4-Methyl-2-pentanone (MIBK)	20.0	21.5	107	18	30	60-135	
Acetone	20.0	22.2	111	14	30	40-140	
Benzene	5.00	5.28	106	11	30	80-120	
Bromobenzene	5.00	5.27	105	14	30	75-125	
Bromoform	5.00	4.87	97	17	30	70-130	
Bromomethane	5.00	4.71	94	17	30	30-145	
Carbon disulfide	5.00	4.88	98	11	30	35-160	
Carbon tetrachloride	5.00	5.03	101	10	30	65-140	
Chlorobenzene	5.00	5.08	102	11	30	80-120	
Chlorobromomethane	5.00	4.69	94	14	30	65-130	
Chlorodibromomethane	5.00	4.82	96	14	30	60-135	
Chloroethane	5.00	5.59	112	20	30	60-135	
Chloroform	5.00	5.11	102	11	30	65-135	
Chloromethane	5.00	5.34	107	9	30	40-125	
cis-1,2-Dichloroethene	5.00	5.12	102	12	30	70-125	
cis-1,3-Dichloropropene	5.00	5.30	106	15	30	70-130	
Dibromomethane	5.00	4.84	97	14	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.: 280-82226-1

SDG No.:

Matrix: Water Level: Low Lab File ID: G2_3979.D

Lab ID: LCSD 280-323599/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dichlorobromomethane	5.00	5.08	102	12	30	75-120	
Dichlorodifluoromethane	5.00	5.70	114	12	30	30-155	
Ethylbenzene	5.00	5.23	105	10	30	75-125	
Ethylene Dibromide	5.00	4.93	99	15	30	80-120	
Hexachlorobutadiene	5.00	5.09	102	9	30	50-140	
Isopropylbenzene	5.00	6.10	122	11	30	75-125	
Methyl tert-butyl ether	5.00	4.95 J	99	18	30	65-125	
Methylene Chloride	5.00	5.62	112	16	30	55-140	
m-Xylene & p-Xylene	5.00	5.37	107	11	30	75-130	
Naphthalene	5.00	4.39	88	16	30	55-140	
n-Butylbenzene	5.00	5.91	118	10	30	70-135	
N-Propylbenzene	5.00	5.80	116	11	30	70-130	
o-Xylene	5.00	5.17	103	10	30	80-120	
sec-Butylbenzene	5.00	5.65	113	11	30	70-125	
Styrene	5.00	4.50	90	13	30	65-135	
tert-Butylbenzene	5.00	5.82	116	12	30	70-130	
Tetrachloroethene	5.00	4.92	98	12	30	45-150	
Toluene	5.00	5.75	115	12	30	75-120	
trans-1,2-Dichloroethene	5.00	4.97	99	8	30	60-140	
trans-1,3-Dichloropropene	5.00	5.08	102	17	30	55-140	
Trichloroethene	5.00	5.29	106	12	30	70-125	
Trichlorofluoromethane	5.00	5.29	106	11	30	60-145	
Vinyl chloride	5.00	5.44	109	10	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.: 280-82226-1

SDG No.:

Lab File ID: G2_3980.D Lab Sample ID: MB 280-323599/6

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

Instrument ID: VMS_G2 Date Analyzed: 05/03/2016 11:55

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
	LCSD 280-323599/5	G2_3979.D	05/03/2016 11:35
	LCS 280-323599/4	G2_3981.D	05/03/2016 12:14
041916TB	280-82226-4	G2_4008.D	05/03/2016 21:04

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab File ID: G2_3362.D BFB Injection Date: 04/12/2016

Instrument ID: VMS_G2 BFB Injection Time: 09:04

Analysis Batch No.: 320302

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	52.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.7	
175	5.0 - 9.0 % of mass 174	5.4	(6.8) 1
176	95.0 - 101.0 % of mass 174	79.1	(99.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(7.1) 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
	IC 280-320302/10	G2_3363.D	04/12/2016	10:14
	IC 280-320302/11	G2_3364.D	04/12/2016	10:33
	IC 280-320302/12	G2_3365.D	04/12/2016	10:52
	IC 280-320302/13	G2_3366.D	04/12/2016	11:12
	IC 280-320302/14	G2_3367.D	04/12/2016	11:31
	IC 280-320302/15	G2_3368.D	04/12/2016	11:50
	IC 280-320302/16	G2_3369.D	04/12/2016	12:10
	IC 280-320302/18	G2_3361.D	04/12/2016	12:48
	IC 280-320302/19	G2_3373.D	04/12/2016	13:31
	IC 280-320302/20	G2_3374.D	04/12/2016	13:51
	ICIS 280-320302/21	G2_3375.D	04/12/2016	14:10
	IC 280-320302/22	G2_3376.D	04/12/2016	14:29
	IC 280-320302/23	G2_3377.D	04/12/2016	14:49
	ICV 280-320302/24	G2_3378.D	04/12/2016	15:08
	ICV 280-320302/17	G2_3379.D	04/12/2016	15:28

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab File ID: G2_3975.D BFB Injection Date: 05/03/2016

Instrument ID: VMS_G2 BFB Injection Time: 10:14

Analysis Batch No.: 323599

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	70.5	
175	5.0 - 9.0 % of mass 174	4.8	(6.8) 1
176	95.0 - 101.0 % of mass 174	69.7	(98.8) 1
177	5.0 - 9.0 % of mass 176	3.9	(5.6) 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 280-323599/2	G2_3976.D	05/03/2016	10:37
	CCV 280-323599/3	G2_3977.D	05/03/2016	10:56
	LCSD 280-323599/5	G2_3979.D	05/03/2016	11:35
	MB 280-323599/6	G2_3980.D	05/03/2016	11:55
	LCS 280-323599/4	G2_3981.D	05/03/2016	12:14
041916TB	280-82226-4	G2_4008.D	05/03/2016	21:04

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab File ID: H3757.D BFB Injection Date: 04/18/2016

Instrument ID: VMS_H BFB Injection Time: 21:34

Analysis Batch No.: 321369

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	46.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.2	
175	5.0 - 9.0 % of mass 174	5.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	78.4	(99.0) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.8) 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
	IC 280-321369/10	H3761.D	04/18/2016	22:46
	IC 280-321369/11	H3762.D	04/18/2016	23:09
	IC 280-321369/12	H3763.D	04/18/2016	23:33
	IC 280-321369/13	H3764.D	04/18/2016	23:59
	IC 280-321369/14	H3765.D	04/19/2016	00:23
	IC 280-321369/15	H3766.D	04/19/2016	00:46
	IC 280-321369/16	H3767.D	04/19/2016	01:10
	ICV 280-321369/23	H3769.D	04/19/2016	01:57
	IC 280-321369/17	H3770.D	04/19/2016	02:20
	IC 280-321369/18	H3771.D	04/19/2016	02:44
	IC 280-321369/19	H3772.D	04/19/2016	03:07
	ICIS 280-321369/20	H3773.D	04/19/2016	03:31
	IC 280-321369/21	H3774.D	04/19/2016	03:54
	IC 280-321369/22	H3775.D	04/19/2016	04:17
	ICV 280-321369/24	H3776.D	04/19/2016	04:41

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab File ID: H3848.D BFB Injection Date: 04/20/2016

Instrument ID: VMS_H BFB Injection Time: 09:49

Analysis Batch No.: 321696

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	47.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	75.6	
175	5.0 - 9.0 % of mass 174	5.6	(7.4) 1
176	95.0 - 101.0 % of mass 174	75.2	(99.4) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.9) 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
	STD01 280-321696/10	H3854.D	04/20/2016	12:45
	STD02 280-321696/11	H3855.D	04/20/2016	13:09
	STD05 280-321696/12	H3856.D	04/20/2016	13:32
	STD10 280-321696/13	H3857.D	04/20/2016	13:56
	STD30 280-321696/14	H3858.D	04/20/2016	14:20
	STD60 280-321696/15	H3859.D	04/20/2016	14:43
	ICV 280-321696/16	H3861.D	04/20/2016	15:31

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab File ID: H4358.D BFB Injection Date: 05/01/2016

Instrument ID: VMS_H BFB Injection Time: 06:41

Analysis Batch No.: 323371

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.4	
75	30.0 - 60.0 % of mass 95	47.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	79.3	
175	5.0 - 9.0 % of mass 174	5.8	(7.3) 1
176	95.0 - 101.0 % of mass 174	76.9	(96.9) 1
177	5.0 - 9.0 % of mass 176	5.4	(7.0) 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 280-323371/2	H4360.D	05/01/2016	07:36
	CCV 280-323371/3	H4361.D	05/01/2016	08:00
	LCS 280-322152/2-A	H4374.D	05/01/2016	13:12
	LB 280-322152/1-A	H4375.D	05/01/2016	13:36
774776CARBON041916	280-82226-1	H4377.D	05/01/2016	14:23
774776CARBON041916 MS	280-82226-1 MS	H4378.D	05/01/2016	14:47
774776CARBON041916 MSD	280-82226-1 MSD	H4379.D	05/01/2016	15:10
785786CARBON041916	280-82226-2	H4380.D	05/01/2016	15:34
B101CARBON041916	280-82226-3	H4381.D	05/01/2016	15:58

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Sample No.: ICIS 280-321369/20 Date Analyzed: 04/19/2016 03:31

Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): H3773.D Heated Purge: (Y/N) N

Calibration ID: 25714

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		97321	3.97	898700	6.75	210809	11.09
UPPER LIMIT		194642	4.47	1797400	7.25	421618	11.59
LOWER LIMIT		48661	3.47	449350	6.25	105405	10.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-321369/23		89098	3.98	830801	6.75	178135	11.08
ICV 280-321369/24		95984	3.98	916288	6.75	217515	11.08
CCV 280-323371/2		87689	3.97	848972	6.75	204961	11.09
CCV 280-323371/3		97589	3.98	773711	6.75	200592	11.08
LCS 280-322152/2-A		154168	3.98	1078347	6.75	256376	11.08
LB 280-322152/1-A		120167	3.97	864500	6.75	219957	11.09
280-82226-1	774776CARBON041916	97282	3.98	870081	6.77	228019	11.10
280-82226-1 MS	774776CARBON041916 MS	103246	3.98	711695	6.76	172889	11.12
280-82226-1 MSD	774776CARBON041916 MSD	143429	3.98	906815	6.76	191787	11.10
280-82226-2	785786CARBON041916	147131	3.98	859227	6.76	221358	11.10
280-82226-3	B101CARBON041916	144622	3.98	1012066	6.76	218678	11.10

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 8260B

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Sample No.: ICIS 280-321369/20 Date Analyzed: 04/19/2016 03:31

Instrument ID: VMS_H GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): H3773.D Heated Purge: (Y/N) N

Calibration ID: 25714

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		338339	14.10				
UPPER LIMIT		676678	14.60				
LOWER LIMIT		169170	13.60				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-321369/23		313116	14.09				
ICV 280-321369/24		343579	14.09				
CCV 280-323371/2		326020	14.10				
CCV 280-323371/3		289545	14.09				
LCS 280-322152/2-A		386405	14.09				
LB 280-322152/1-A		305038	14.08				
280-82226-1	774776CARBON041916	321388	14.12				
280-82226-1 MS	774776CARBON041916 MS	268712	14.11				
280-82226-1 MSD	774776CARBON041916 MSD	298939	14.11				
280-82226-2	785786CARBON041916	321612	14.11				
280-82226-3	B101CARBON041916	307929	14.11				

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Sample No.: ICIS 280-320302/21 Date Analyzed: 04/12/2016 14:10

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): G2_3375.D Heated Purge: (Y/N) N

Calibration ID: 25662

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		168192	5.47	1661633	7.42	334145	9.69
UPPER LIMIT		336384	5.97	3323266	7.92	668290	10.19
LOWER LIMIT		84096	4.97	830817	6.92	167073	9.19
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-320302/24		205457	5.47	1825595	7.42	372912	9.69
ICV 280-320302/17		200952	5.47	1748823	7.42	355573	9.69
CCV 280-323599/2		215822	5.47	1982032	7.42	408322	9.69
CCV 280-323599/3		191442	5.47	1876973	7.42	392765	9.69
LCSD 280-323599/5		193125	5.46	1843054	7.41	381674	9.69
MB 280-323599/6		183250	5.47	1722314	7.42	351438	9.69
LCS 280-323599/4		197916	5.47	1969693	7.42	404285	9.69
280-82226-4	041916TB	144634	5.47	1569913	7.42	318092	9.69

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.: 280-82226-1

SDG No.:

Sample No.: ICIS 280-320302/21 Date Analyzed: 04/12/2016 14:10

Instrument ID: VMS_G2 GC Column: DB-624 (60.25) ID: 0.25(mm)

Lab File ID (Standard): G2_3375.D Heated Purge: (Y/N) N

Calibration ID: 25662

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		453484	11.49				
UPPER LIMIT		906968	11.99				
LOWER LIMIT		226742	10.99				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-320302/24		508022	11.49				
ICV 280-320302/17		532633	11.49				
CCV 280-323599/2		578195	11.49				
CCV 280-323599/3		511217	11.49				
LCSD 280-323599/5		528465	11.49				
MB 280-323599/6		477283	11.49				
LCS 280-323599/4		567930	11.49				
280-82226-4	041916TB	404010	11.49				

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.: 280-82226-1

SDG No.:

Client Sample ID: 774776CARBON041916 | Lab Sample ID: 280-82226-1

Matrix: Solid (TCLP) | Lab File ID: H4377.D

Analysis Method: 8260B | Date Collected: 04/19/2016 12:40

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 14:23

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	4.0	U	10	4.0	1.6
78-93-3	2-Butanone (MEK)	64	U J	100	64	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	4.0	U	10	4.0	1.7
67-66-3	Chloroform	1.7	J	10	4.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U J	10	4.0	1.3
75-35-4	1,1-Dichloroethene	8.0	U J	10	8.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	6.1	J	10	4.0	1.6
75-01-4	Vinyl chloride	2.0	U	10	2.0	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)	96		78-120
460-00-4	4-Bromofluorobenzene (Surr)	100		78-121
1868-53-7	Dibromofluoromethane (Surr)	99		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4377.D
Lims ID: 280-82226-A-1-A Lab Sample ID: 280-82226-1
Client ID: 774776CARBON041916
Sample Type: Client
Inject. Date: 01-May-2016 14:23:30 ALS Bottle#: 19 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-A-1-A 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 02-May-2016 05:20:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.984	3.980	0.004	95	97282	250.0	
* 2 Fluorobenzene	96	6.769	6.766	0.003	98	870081	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.104	11.101	0.003	86	228019	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.116	14.095	0.021	97	321388	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.934	5.930	0.004	94	381963	8.93	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.351	6.348	0.003	99	142828	8.53	
$ 10 Toluene-d8 (Surr)	98	8.876	8.872	0.004	93	881701	8.61	
$ 11 4-Bromofluorobenzene (Surr	95	12.776	12.755	0.022	88	420606	9.00	
$ 152 Trifluorotoluene (Surr)	1		0.000				ND	
$ 7 BFB	95		2.482				ND	
28 Dichlorodifluoromethane	85		2.135				ND	
27 Chlorotrifluoroethene	116		2.173				ND	
30 Chloromethane	50		2.257				ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329				ND	
32 Vinyl chloride	62		2.361				ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521				ND	
34 Ethylene oxide	43		2.638				ND	
35 Bromomethane	94		2.674				ND	
36 Chloroethane	64		2.744				ND	
37 Dichlorofluoromethane	67		2.918				ND	
38 Trichlorofluoromethane	101	2.974	2.988	-0.014	98	19266	0.2982	
39 Ethanol	45		3.143				ND	
40 Ethyl ether	59		3.214				ND	
43 Propene oxide	58		3.299				ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322				ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374				ND	
44 Acrolein	56		3.375				ND	
45 1,1-Dichloroethene	96		3.475				ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.493				ND	
47 Acetone	43	3.531	3.510	0.021	98	13298	11.1	
49 Isopropyl alcohol	45		3.630				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
48 Iodomethane	142		3.649				ND	
50 Carbon disulfide	76		3.719				ND	
51 Acetonitrile	41		3.804				ND	
52 3-Chloro-1-propene	41		3.823				ND	
53 Methyl acetate	43		3.823				ND	
54 Methylene Chloride	84	3.949	3.945	0.004	97	27233	0.7709	
55 2-Methyl-2-propanol	59		4.067				ND	
57 Acrylonitrile	53		4.206				ND	
56 Methyl tert-butyl ether	73		4.241				ND	
58 trans-1,2-Dichloroethene	96		4.241				ND	
59 Hexane	57		4.502				ND	
60 1,1-Dichloroethane	63		4.694				ND	
61 Vinyl acetate	43		4.715				ND	
62 Isopropyl ether	87		4.744				ND	
63 2-Chloro-1,3-butadiene	53		4.797				ND	
64 Tert-butyl ethyl ether	59		5.162				ND	
65 cis-1,2-Dichloroethene	96		5.355				ND	
66 2,2-Dichloropropane	77		5.373				ND	
67 2-Butanone (MEK)	43		5.373				ND	
69 Ethyl acetate	43		5.423				ND	
70 Propionitrile	54		5.458				ND	
71 sec-Butyl Alcohol	45		5.582				ND	
72 Methacrylonitrile	41		5.615				ND	
73 Chlorobromomethane	128		5.651				ND	
74 Tetrahydrofuran	42		5.704				ND	
75 Chloroform	83	5.725	5.721	0.004	90	9987	0.1727	
76 1,1,1-Trichloroethane	97		5.965				ND	
77 Cyclohexane	56		6.034				ND	
78 1,1-Dichloropropene	75		6.156				ND	
79 Carbon tetrachloride	117		6.174				ND	
80 Isobutyl alcohol	41		6.296				ND	
81 Benzene	78		6.417				ND	
82 1,2-Dichloroethane	62		6.435				ND	
83 Tert-amyl methyl ether	73		6.537				ND	
84 n-Heptane	43		6.713				ND	
85 n-Butanol	56		7.147				ND	
86 Trichloroethene	95	7.239	7.236	0.003	97	27195	0.6064	
88 2-Pentanone	43		7.462				ND	
89 Methylcyclohexane	55		7.479				ND	
90 1,2-Dichloropropane	63		7.532				ND	
91 Methyl methacrylate	100		7.669				ND	
92 Dibromomethane	93		7.688				ND	
93 1,4-Dioxane	88		7.741				ND	
94 Dichlorobromomethane	83		7.897				ND	
95 2-Nitropropane	41		8.191				ND	
96 2-Chloroethyl vinyl ether	63		8.284				ND	
97 cis-1,3-Dichloropropene	75		8.489				ND	
98 4-Methyl-2-pentanone (MIBK	43		8.715				ND	
99 Toluene	91		8.959				ND	
100 trans-1,3-Dichloropropene	75		9.273				ND	
101 Ethyl methacrylate	69		9.412				ND	
102 1,1,2-Trichloroethane	97		9.534				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
103 Tetrachloroethene	164		9.743				ND	
104 1,3-Dichloropropane	76		9.777				ND	
105 2-Hexanone	43		9.917				ND	
107 Tetrahydrothiophene	60		10.124				ND	
108 Chlorodibromomethane	129		10.143				ND	
109 Ethylene Dibromide	107		10.317				ND	
110 1-Chlorohexane	91		11.101				ND	
111 Chlorobenzene	112		11.135				ND	
112 1,1,1,2-Tetrachloroethane	131		11.275				ND	
113 Ethylbenzene	106		11.310				ND	
114 m-Xylene & p-Xylene	106		11.501				ND	
115 o-Xylene	106		12.076				ND	
116 Styrene	104		12.093				ND	
117 Bromoform	173		12.337				ND	
118 Isopropylbenzene	105		12.563				ND	
119 cis-1,4-Dichloro-2-butene	53		12.648				ND	
120 Cyclohexanone	55		12.685				ND	
121 1,1,2,2-Tetrachloroethane	83		12.946				ND	
122 Bromobenzene	156		12.946				ND	
123 1,2,3-Trichloropropane	110		12.998				ND	
124 trans-1,4-Dichloro-2-buten	53		13.016				ND	
125 N-Propylbenzene	120		13.068				ND	
126 2-Chlorotoluene	126		13.172				ND	
127 1,3,5-Trimethylbenzene	105		13.277				ND	
128 4-Chlorotoluene	126		13.294				ND	
129 tert-Butylbenzene	119		13.660				ND	
130 1,2,4-Trimethylbenzene	105		13.712				ND	
22 Pentachloroethane	167		13.716				ND	
131 sec-Butylbenzene	134		13.904				ND	
132 1,3-Dichlorobenzene	146		14.025				ND	
133 4-Isopropyltoluene	119		14.060				ND	
134 1,4-Dichlorobenzene	146		14.130				ND	
135 1,2,3-Trimethylbenzene	105		14.163				ND	
137 n-Butylbenzene	91		14.495				ND	
138 1,2-Dichlorobenzene	146		14.513				ND	
139 1,2-Dibromo-3-Chloropropan	157		15.296				ND	
140 1,3,5-Trichlorobenzene	180		15.486				ND	
141 1,2,4-Trichlorobenzene	180	16.083	16.062	0.021	91	6261	0.1880	
142 Hexachlorobutadiene	225		16.219				ND	
143 Naphthalene	128		16.289				ND	
144 1,2,3-Trichlorobenzene	180	16.536	16.515	0.021	92	5912	0.2585	
21 2,4-Dimethylpentane	1		0.000				ND	
15 Dimethyl disulfide	1		0.000				ND	
12 3-Ethylpentane	1		0.000				ND	
24 3-Methylhexane	1		0.000				ND	
19 2,3-Dimethylpentane	1		0.000				ND	
13 n-Nonyl Aldehyde	1		0.000				ND	
18 2,2-Dimethylpentane	1		0.000				ND	
23 2-Methylhexane	1		0.000				ND	
14 2-Butoxyethanol TIC	1		0.000				ND	
16 3,3-Dimethylpentane	1		0.000				ND	
17 2,2,3-Trimethylbutane	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
S 151 1,2-Dichloroethene, Total	96		2.000				ND	
S 145 Trihalomethanes, Total	1				0		0.1727	
S 146 Xylenes, Total (URS)	1		0.000				ND	
S 147 Total BTEX	1		0.000				ND	
S 148 1,3-Dichloropropene, Total	1		0.000				ND	
S 149 1,2-Dichloroethene, Total	1		0.000				ND	
S 150 Xylenes, Total	106		0.000				ND	
S 160 TAH	1				0		0	
T 25 Dichloroacetonitrile TIC	74		0.000				ND	
T 26 2,3-dichloro-1-propene TIC	75		0.000				ND	
T 68 Propene oxide TIC	58		0.000				ND	
T 153 Propene TIC	1		0.000				ND	
T 155 4-Ethyltoluene TIC	1		0.000				ND	
T 154 Dicyclopentadiene TIC	1		0.000				ND	
T 156 1,3-Butadiene TIC	1		0.000				ND	
T 161 n-Nonane TIC	1		0.000				ND	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

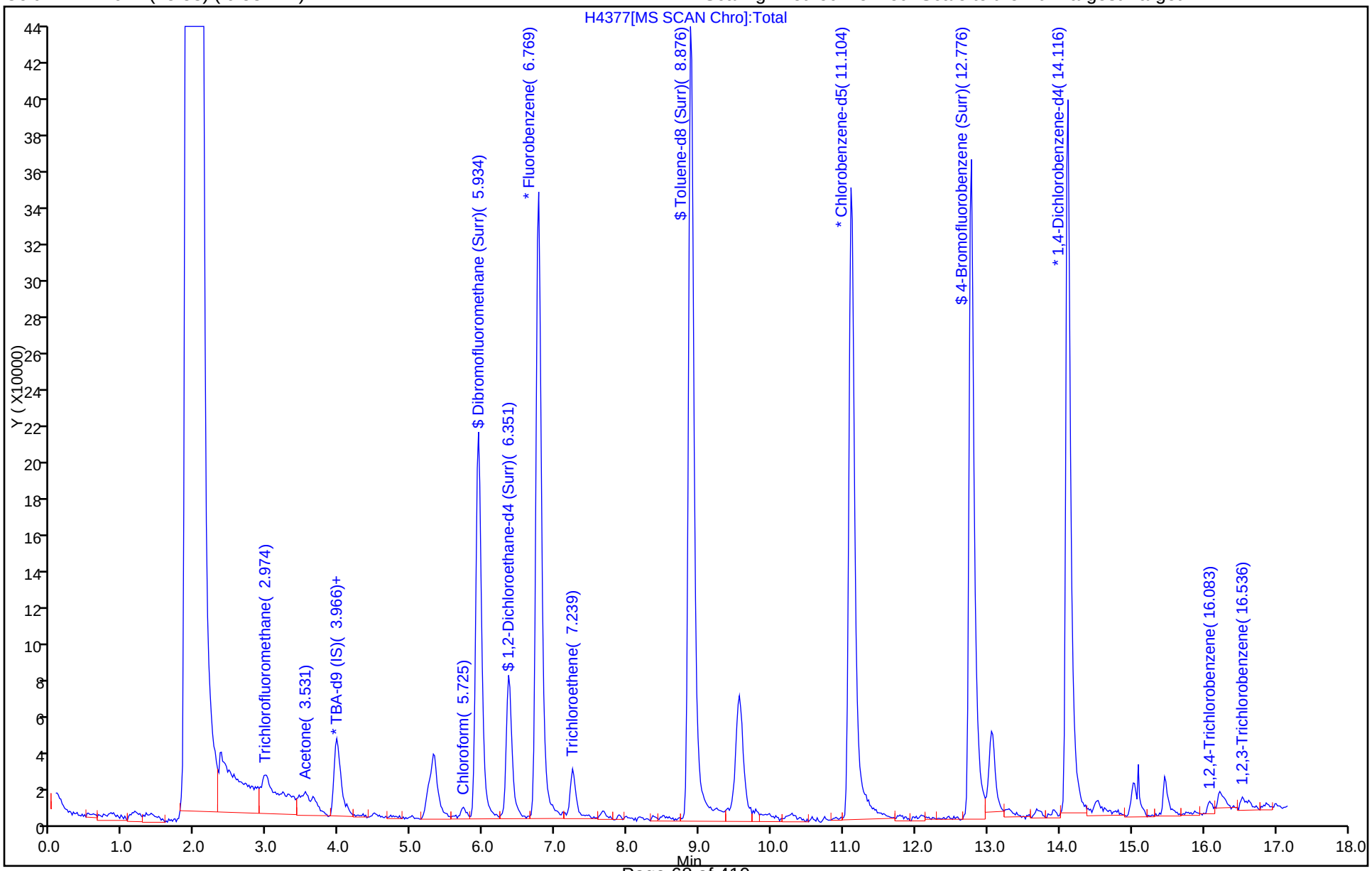
Report Date: 02-May-2016 05:30:36 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4377.D

Injection Date:	01-May-2016 14:23:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	280-82226-A-1-A	Lab Sample ID:	280-82226-1	Worklist Smp#:	22
Client ID:	774776CARBON041916				
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



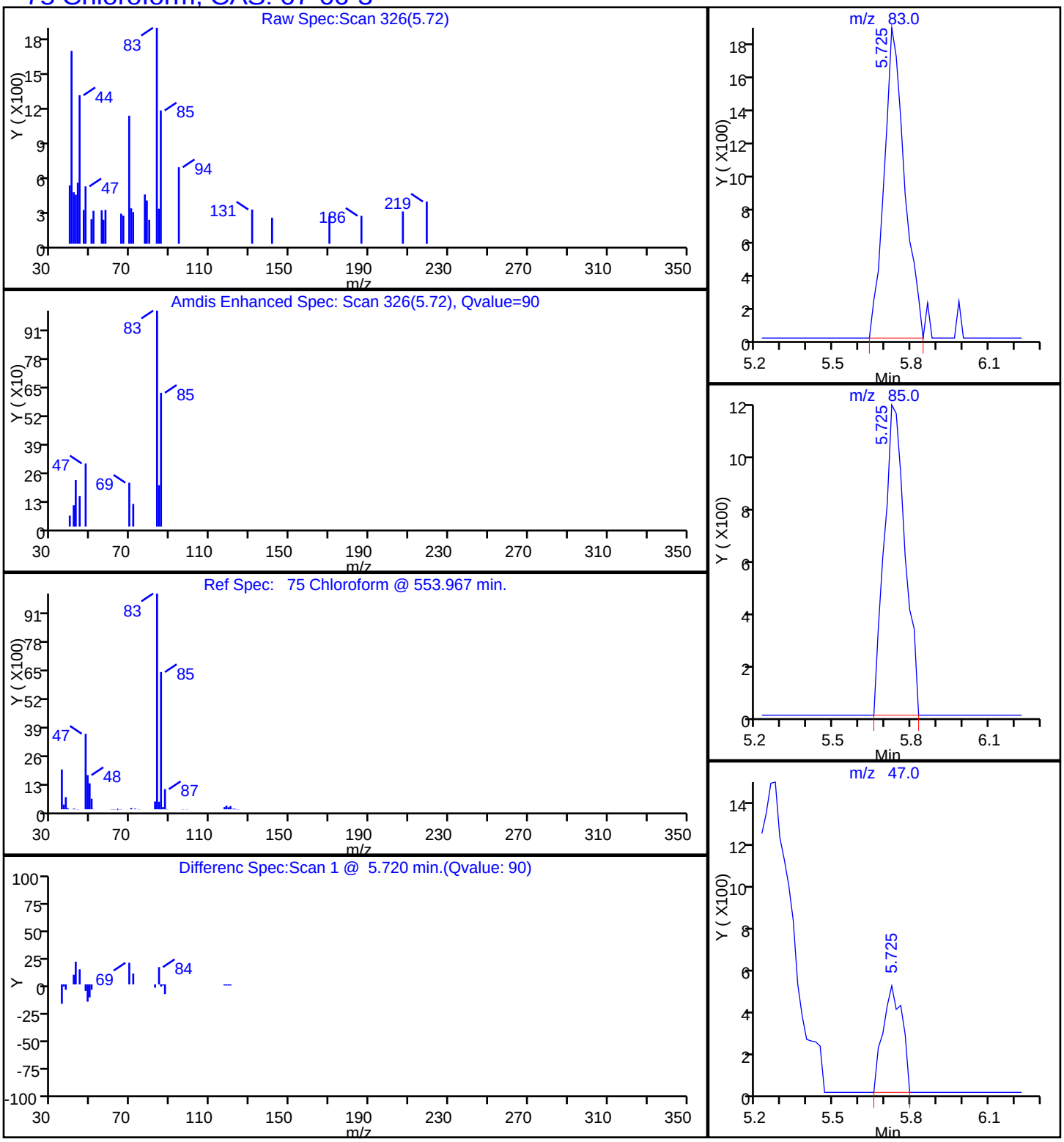
Report Date: 02-May-2016 05:30:36 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4377.D

Injection Date:	01-May-2016 14:23:30	Instrument ID:	VMS_H
Lims ID:	280-82226-A-1-A	Lab Sample ID:	280-82226-1
Client ID:	774776CARBON041916		
Operator ID:	wickhamt	ALS Bottle#:	19 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

75 Chloroform, CAS: 67-66-3



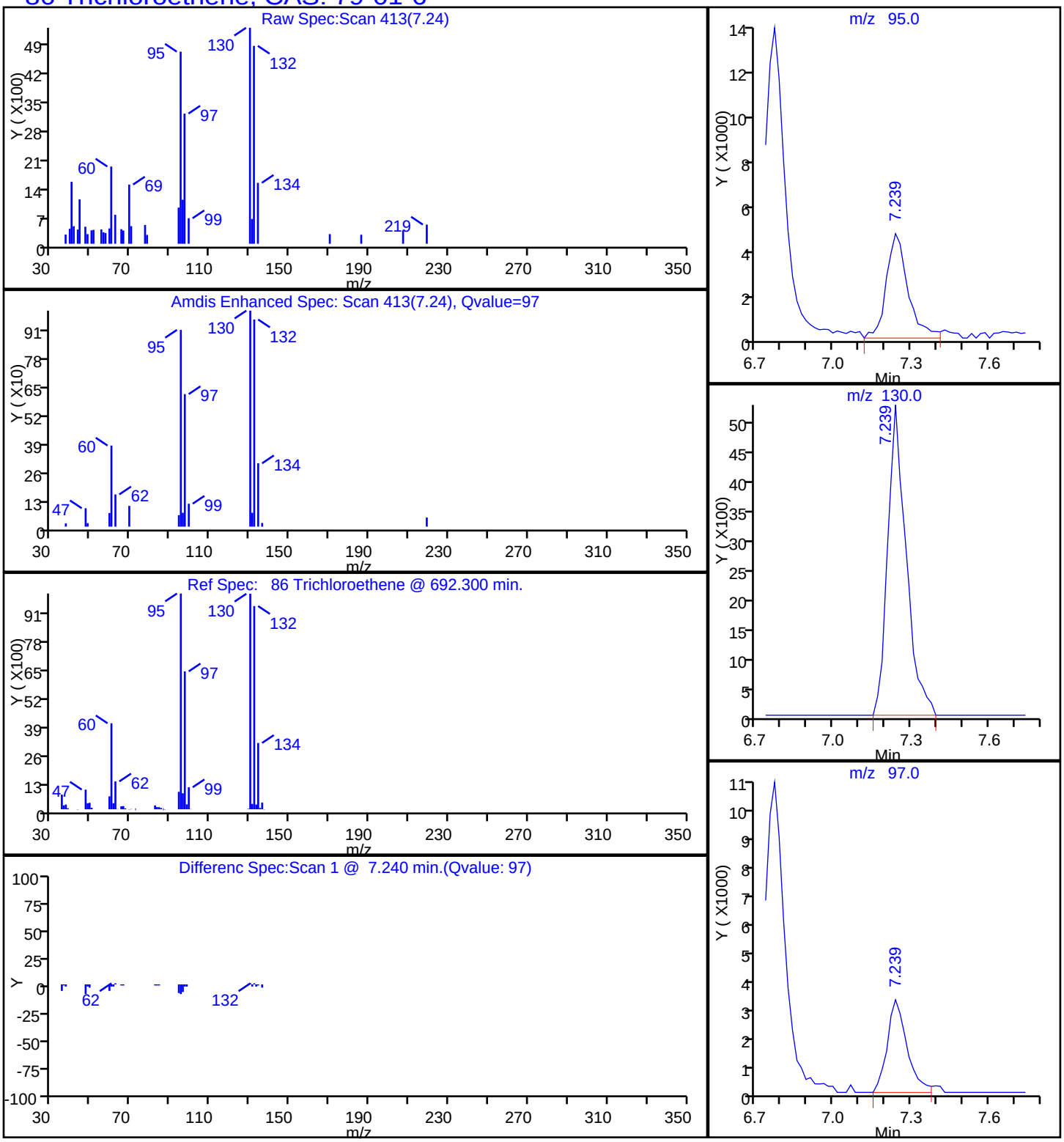
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4377.D

Injection Date:	01-May-2016 14:23:30	Instrument ID:	VMS_H
Lims ID:	280-82226-A-1-A	Lab Sample ID:	280-82226-1
Client ID:	774776CARBON041916		
Operator ID:	wickhamt	ALS Bottle#:	19 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

86 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: 785786CARBON041916 | Lab Sample ID: 280-82226-2

Matrix: Solid (TCLP) | Lab File ID: H4380.D

Analysis Method: 8260B | Date Collected: 04/19/2016 13:45

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 15:34

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	4.0	U	10	4.0	1.6
78-93-3	2-Butanone (MEK)	64	U	100	64	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	4.0	U	10	4.0	1.7
67-66-3	Chloroform	4.0	U	10	4.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	8.0	U	10	8.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	3.2	J	10	4.0	1.6
75-01-4	Vinyl chloride	2.0	U	10	2.0	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)	98		78-120
460-00-4	4-Bromofluorobenzene (Surr)	100		78-121
1868-53-7	Dibromofluoromethane (Surr)	98		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4380.D
Lims ID: 280-82226-A-2-A Lab Sample ID: 280-82226-2
Client ID: 785786CARBON041916
Sample Type: Client
Inject. Date: 01-May-2016 15:34:30 ALS Bottle#: 22 Worklist Smp#: 25
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-A-2-A 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 02-May-2016 05:23:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.977	3.980	-0.003	96	147131	250.0	
* 2 Fluorobenzene	96	6.763	6.766	-0.003	98	859227	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.098	11.101	-0.003	86	221358	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.110	14.095	0.015	96	321612	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.927	5.930	-0.003	94	373786	8.85	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.345	6.348	-0.003	100	140962	8.52	
$ 10 Toluene-d8 (Surr)	98	8.887	8.872	0.015	93	873105	8.78	
$ 11 4-Bromofluorobenzene (Surr	95	12.769	12.755	0.015	88	420590	8.99	
32 Vinyl chloride	62		2.361				ND	
45 1,1-Dichloroethene	96		3.475				ND	
67 2-Butanone (MEK)	43		5.373				ND	
75 Chloroform	83		5.721				ND	
79 Carbon tetrachloride	117		6.174				ND	
81 Benzene	78		6.417				ND	
82 1,2-Dichloroethane	62		6.435				ND	
86 Trichloroethene	95	7.233	7.236	-0.003	95	14129	0.3190	
103 Tetrachloroethene	164		9.743				ND	
111 Chlorobenzene	112		11.135				ND	

Reagents:

MV-568718-D_00006	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added: 0.72	Units: uL	Run Reagent

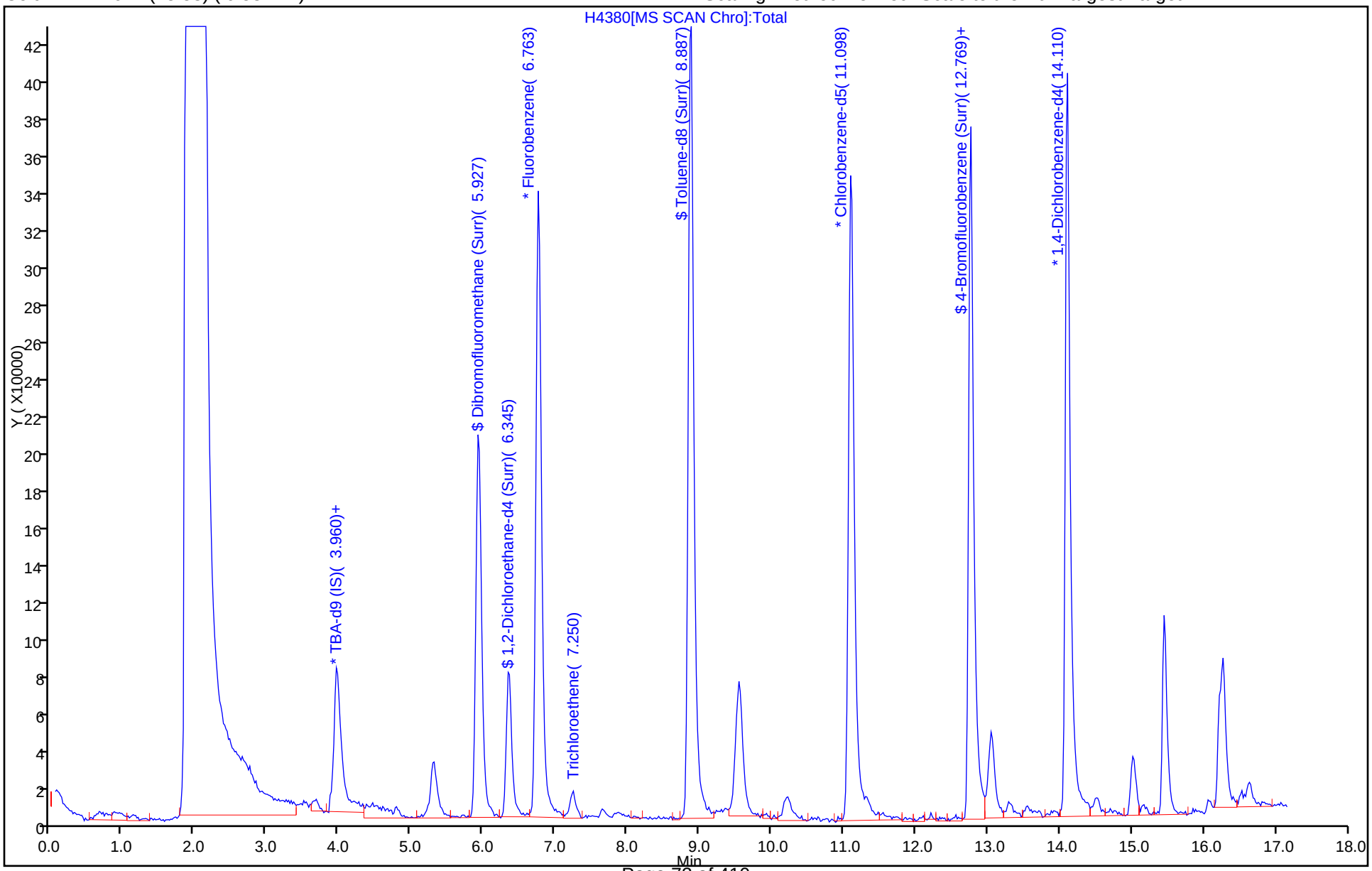
Report Date: 02-May-2016 05:30:43 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4380.D

Injection Date:	01-May-2016 15:34:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	280-82226-A-2-A	Lab Sample ID:	280-82226-2	Worklist Smp#:	25
Client ID:	785786CARBON041916				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
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



Report Date: 02-May-2016 05:30:43 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4380.D

Injection Date: 01-May-2016 15:34:30 Instrument ID: VMS_H

Lims ID: 280-82226-A-2-A Lab Sample ID: 280-82226-2

Client ID: 785786CARBON041916

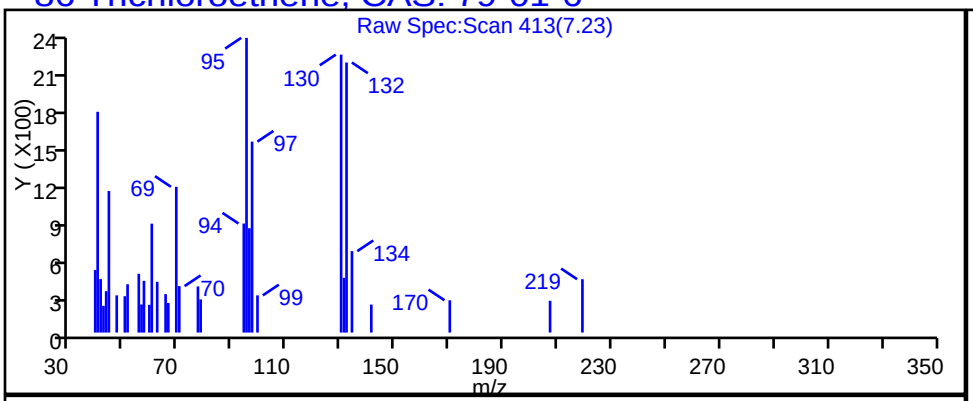
Operator ID: wickhamt ALS Bottle#: 22 Worklist Smp#: 25

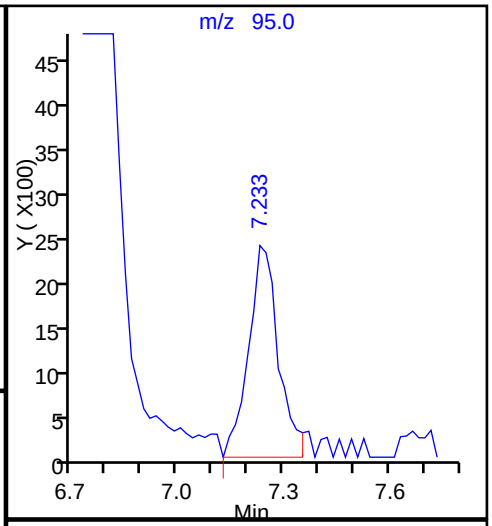
Purge Vol: 20.000 mL Dil. Factor: 1.0000

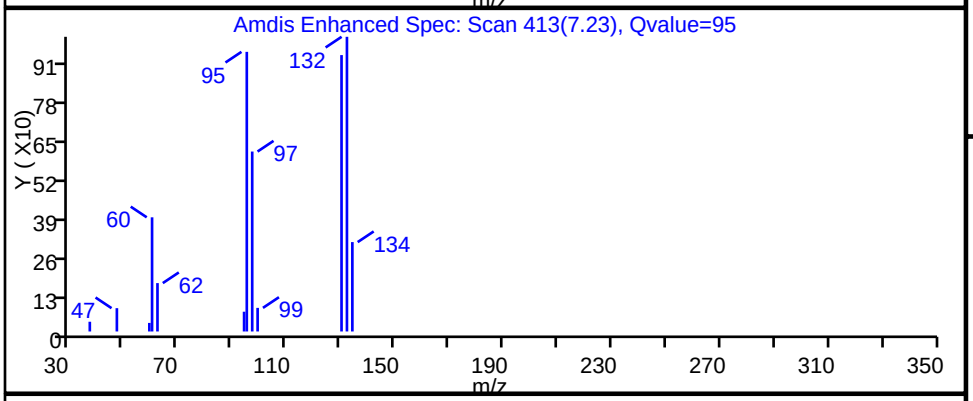
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid

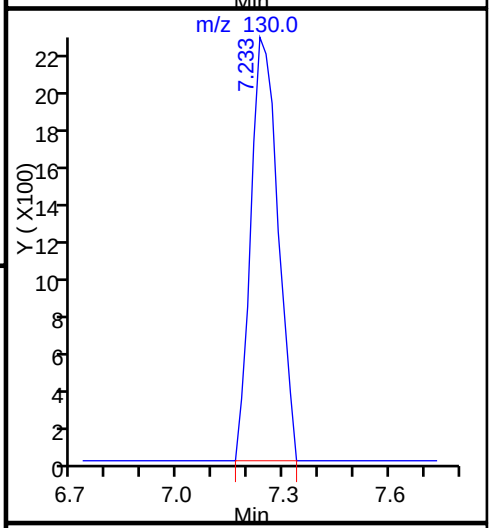
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

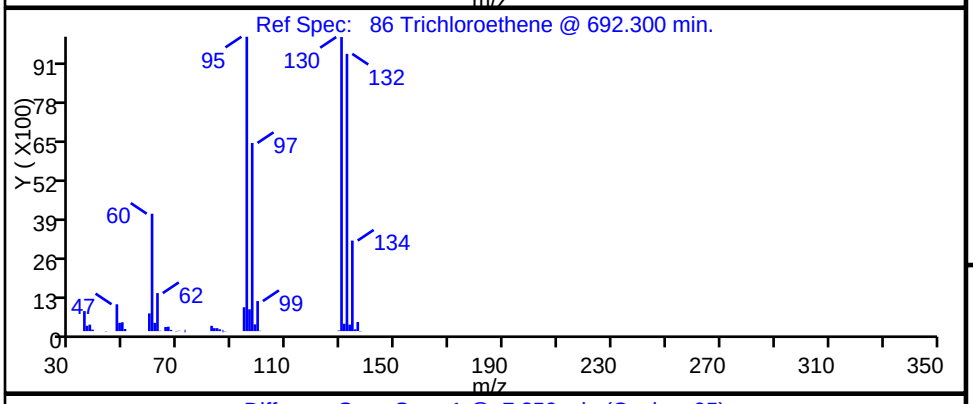
86 Trichloroethene, CAS: 79-01-6

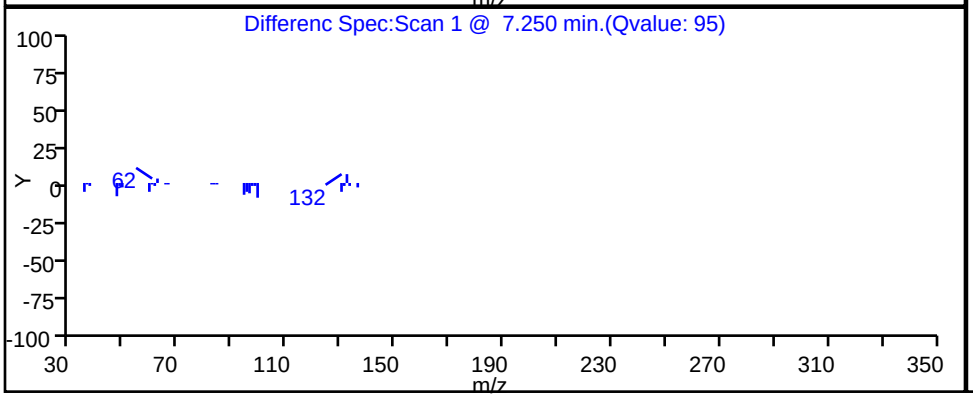


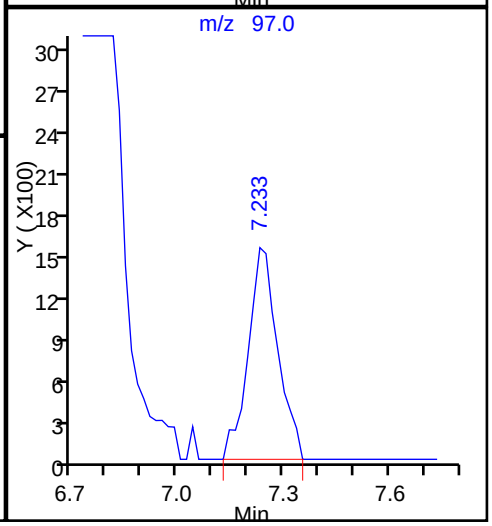












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: B101CARBON041916 | Lab Sample ID: 280-82226-3

Matrix: Solid (TCLP) | Lab File ID: H4381.D

Analysis Method: 8260B | Date Collected: 04/19/2016 14:30

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 15:58

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
71-43-2	Benzene	4.0	U	10	4.0	1.6
78-93-3	2-Butanone (MEK)	64	U	100	64	18
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	4.0	U	10	4.0	1.7
67-66-3	Chloroform	5.1	J	10	4.0	1.6
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
75-35-4	1,1-Dichloroethene	8.0	U	10	8.0	2.3
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	4.0	U	10	4.0	1.6
75-01-4	Vinyl chloride	2.0	U	10	2.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-129
2037-26-5	Toluene-d8 (Surr)	118		78-120
460-00-4	4-Bromofluorobenzene (Surr)	100		78-121
1868-53-7	Dibromofluoromethane (Surr)	102		79-119

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4381.D
Lims ID: 280-82226-B-3-A Lab Sample ID: 280-82226-3
Client ID: B101CARBON041916
Sample Type: Client
Inject. Date: 01-May-2016 15:58:30 ALS Bottle#: 23 Worklist Smp#: 26
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-B-3-A 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
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Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 02-May-2016 05:24:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	3.978	3.980	-0.002	96	144622	250.0	
* 2 Fluorobenzene	96	6.764	6.766	-0.002	97	1012066	12.5	
* 3 1,4-Dioxane-d8	96		8.670				ND	
* 4 Chlorobenzene-d5	119	11.099	11.101	-0.002	86	218678	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.111	14.095	0.016	97	307929	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.930	-0.002	93	458186	9.21	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.346	6.348	-0.002	98	201799	10.4	
$ 10 Toluene-d8 (Surr)	98	8.870	8.872	-0.002	94	1044380	10.6	
$ 11 4-Bromofluorobenzene (Surr	95	12.770	12.755	0.016	88	401942	8.98	
32 Vinyl chloride	62		2.361				ND	
45 1,1-Dichloroethene	96		3.475				ND	
67 2-Butanone (MEK)	43		5.373				ND	
75 Chloroform	83	5.737	5.721	0.016	95	34538	0.5135	
79 Carbon tetrachloride	117		6.174				ND	
81 Benzene	78		6.417				ND	
82 1,2-Dichloroethane	62		6.435				ND	
86 Trichloroethene	95		7.236				ND	
103 Tetrachloroethene	164		9.743				ND	
111 Chlorobenzene	112		11.135				ND	

Reagents:

MV-568718-D_00006	Amount Added: 1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added: 0.72	Units: uL	Run Reagent

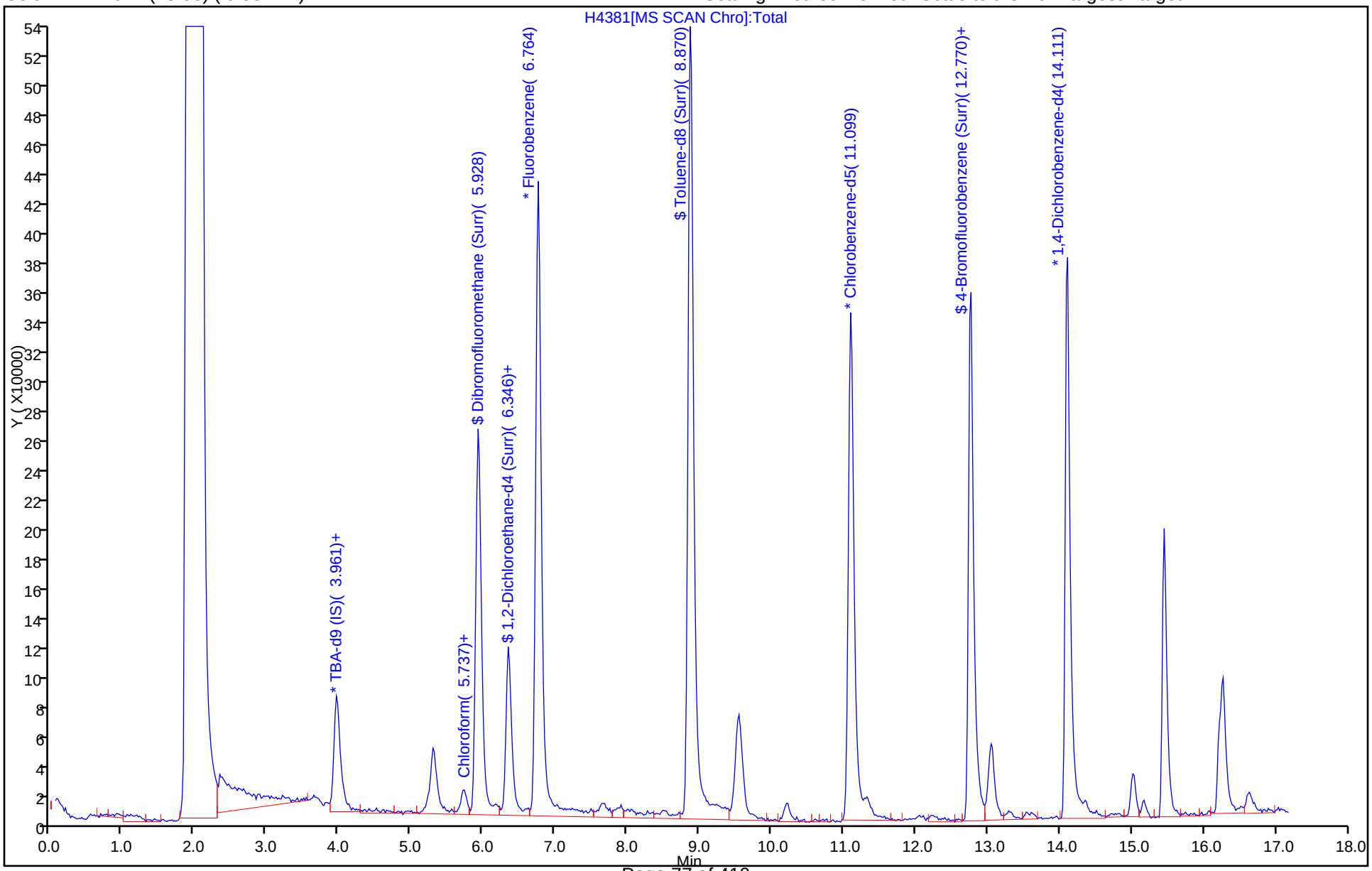
Report Date: 02-May-2016 05:30:46 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4381.D

Injection Date:	01-May-2016 15:58:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	280-82226-B-3-A	Lab Sample ID:	280-82226-3	Worklist Smp#:	26
Client ID:	B101CARBON041916				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
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



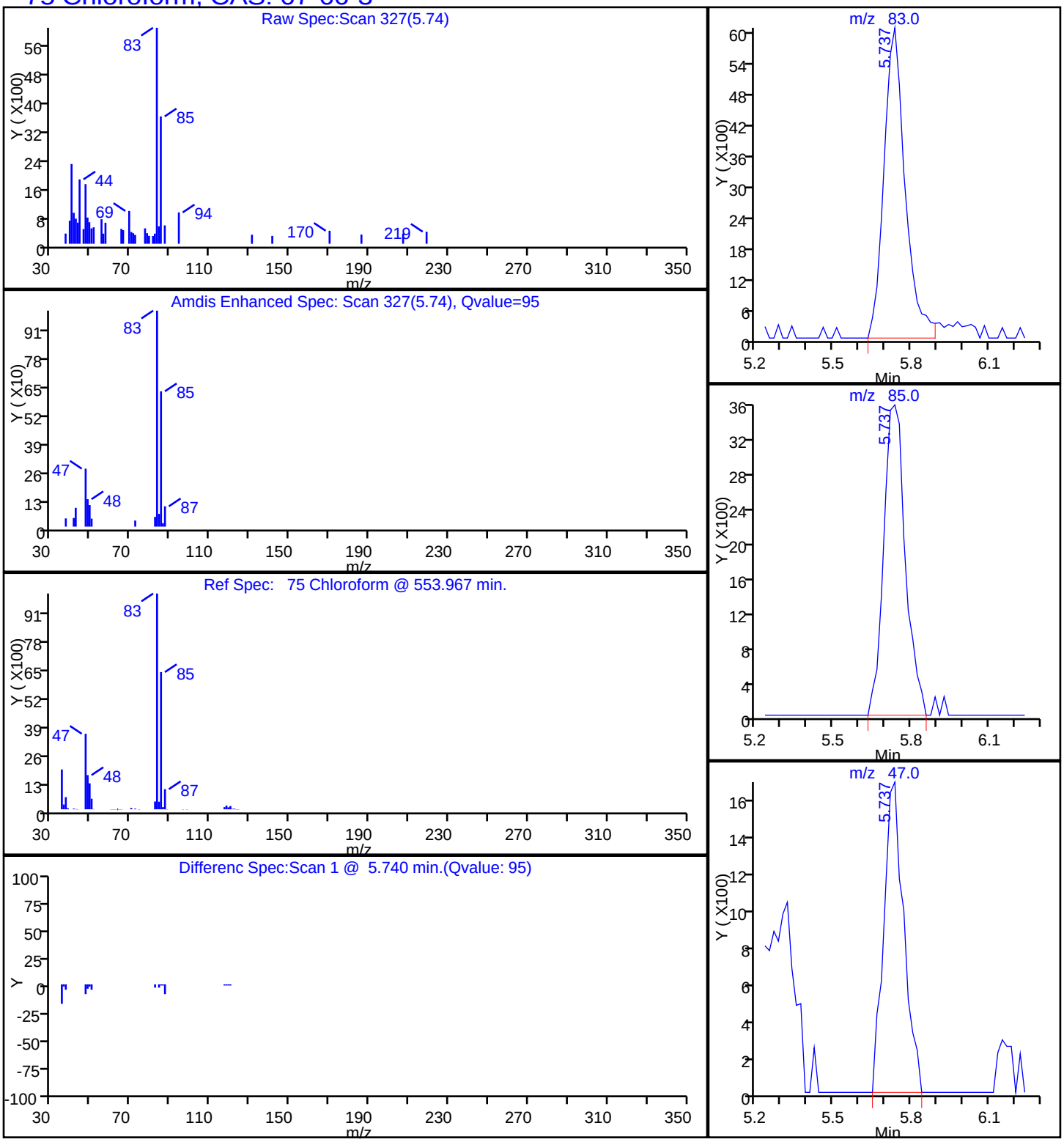
Report Date: 02-May-2016 05:30:46 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4381.D

Injection Date:	01-May-2016 15:58:30	Instrument ID:	VMS_H
Lims ID:	280-82226-B-3-A	Lab Sample ID:	280-82226-3
Client ID:	B101CARBON041916		
Operator ID:	wickhamt	ALS Bottle#:	23 Worklist Smp#: 26
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

75 Chloroform, CAS: 67-66-3



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: 041916TB | Lab Sample ID: 280-82226-4

Matrix: Water | Lab File ID: G2_4008.D

Analysis Method: 8260C | Date Collected: 04/19/2016 12:30

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 21:04

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	160	U	220	160	71
544-10-5	1-Chlorohexane	0.40	U	1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: 041916TB | Lab Sample ID: 280-82226-4

Matrix: Water | Lab File ID: G2_4008.D

Analysis Method: 8260C | Date Collected: 04/19/2016 12:30

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 21:04

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.: 323599 | 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	0.40	U	1.0	0.40	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	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	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
110-82-7	Cyclohexane	0.80	U	2.0	0.80	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	4.0	U	5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
108-87-2	Methylcyclohexane	0.80	U	2.0	0.80	0.36
75-09-2	Methylene Chloride	0.77	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	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Client Sample ID: 041916TB Lab Sample ID: 280-82226-4

Matrix: Water Lab File ID: G2_4008.D

Analysis Method: 8260C Date Collected: 04/19/2016 12:30

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 21:04

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.: 323599 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		70-120
460-00-4	4-Bromofluorobenzene (Surr)	97		75-120
1868-53-7	Dibromofluoromethane (Surr)	98		85-115
2037-26-5	Toluene-d8 (Surr)	96		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_4008.D
Lims ID: 280-82226-A-4 Lab Sample ID: 280-82226-4
Client ID: 041916TB
Sample Type: Client
Inject. Date: 03-May-2016 21:04:30 ALS Bottle#: 42 Worklist Smp#: 36
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-A-4 ph<2
Operator ID: moanm Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 04-May-2016 07:13:12 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: moanm Date: 04-May-2016 07:12:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 TBA-d9 (IS)	65	5.473	5.473	0.000	0	144634	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1569913	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	90	318092	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.481	0.007	98	404010	12.5	
* 5 1,4-Dioxane-d8	96		0.000				ND	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	92	319200	9.80	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	287468	10.4	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1389396	9.60	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	84	398871	9.73	
13 Dichlorodifluoromethane	85		3.825				ND	
14 Chloromethane	50		4.021				ND	
16 Vinyl chloride	62		4.174				ND	
19 Bromomethane	94		4.510				ND	
20 Chloroethane	64		4.579				ND	
22 Trichlorofluoromethane	101		4.803				ND	
29 Acetone	43		5.208				ND	
31 1,1,2-Trichloro-1,2,2-trif	151		5.236				ND	
32 1,1-Dichloroethene	96		5.250				ND	
35 Methyl acetate	43		5.431				ND	
37 Carbon disulfide	76	5.515	5.515	0.000	98	22403	0.1078	
39 Methylene Chloride	84	5.571	5.585	-0.014	96	60182	0.7727	
41 Methyl tert-butyl ether	73		5.767				ND	
42 trans-1,2-Dichloroethene	96		5.808				ND	
46 1,1-Dichloroethane	63		6.118				ND	
50 2-Butanone (MEK)	43		6.483				ND	
53 cis-1,2-Dichloroethene	96		6.540				ND	
54 2,2-Dichloropropane	77		6.583				ND	
56 Chlorobromomethane	128		6.733				ND	
57 Chloroform	83		6.747				ND	
60 1,1,1-Trichloroethane	97		6.969				ND	
61 Cyclohexane	56		7.055				ND	
62 1,1-Dichloropropene	75		7.069				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
63 Carbon tetrachloride	117		7.119				ND	
64 1,2-Dichloroethane	62		7.219				ND	
66 Benzene	78		7.248				ND	
69 Trichloroethene	95		7.713				ND	
72 1,2-Dichloropropane	63		7.891				ND	
73 Methylcyclohexane	55		7.913				ND	
74 1,4-Dioxane	88		7.941				ND	
75 Dibromomethane	93		7.991				ND	
76 Dichlorobromomethane	83		8.063				ND	
79 cis-1,3-Dichloropropene	75		8.392				ND	
80 4-Methyl-2-pentanone (MIBK	43		8.442				ND	
81 Toluene	91		8.678				ND	
83 trans-1,3-Dichloropropene	75		8.764				ND	
84 1,1,2-Trichloroethane	97		8.921				ND	
85 2-Hexanone	43		9.042				ND	
86 1,3-Dichloropropane	76		9.057				ND	
87 Tetrachloroethene	164		9.093				ND	
88 Chlorodibromomethane	129		9.250				ND	
90 Ethylene Dibromide	107		9.371				ND	
91 1-Chlorohexane	91		9.607				ND	
92 Chlorobenzene	112		9.715				ND	
93 1,1,1,2-Tetrachloroethane	131		9.743				ND	
94 Ethylbenzene	106		9.750				ND	
95 m-Xylene & p-Xylene	106		9.829				ND	
96 Styrene	104		10.136				ND	
97 o-Xylene	106		10.144				ND	
98 Bromoform	173		10.330				ND	
99 Isopropylbenzene	105		10.401				ND	
102 1,1,2,2-Tetrachloroethane	83		10.587				ND	
104 1,2,3-Trichloropropane	110		10.658				ND	
105 Bromobenzene	156		10.708				ND	
106 N-Propylbenzene	120		10.716				ND	
107 1,3,5-Trimethylbenzene	105		10.823				ND	
108 2-Chlorotoluene	126		10.830				ND	
109 4-Chlorotoluene	126		10.902				ND	
110 tert-Butylbenzene	119		11.109				ND	
111 1,2,4-Trimethylbenzene	105		11.138				ND	
112 sec-Butylbenzene	134		11.288				ND	
113 4-Isopropyltoluene	119		11.381				ND	
114 1,3-Dichlorobenzene	146		11.438				ND	
116 1,4-Dichlorobenzene	146		11.509				ND	
117 n-Butylbenzene	91		11.731				ND	
118 1,2-Dichlorobenzene	146		11.853				ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568				ND	
121 1,2,4-Trichlorobenzene	180		13.490				ND	
122 Hexachlorobutadiene	225		13.647				ND	
123 Naphthalene	128		13.833				ND	
124 1,2,3-Trichlorobenzene	180		14.141				ND	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent

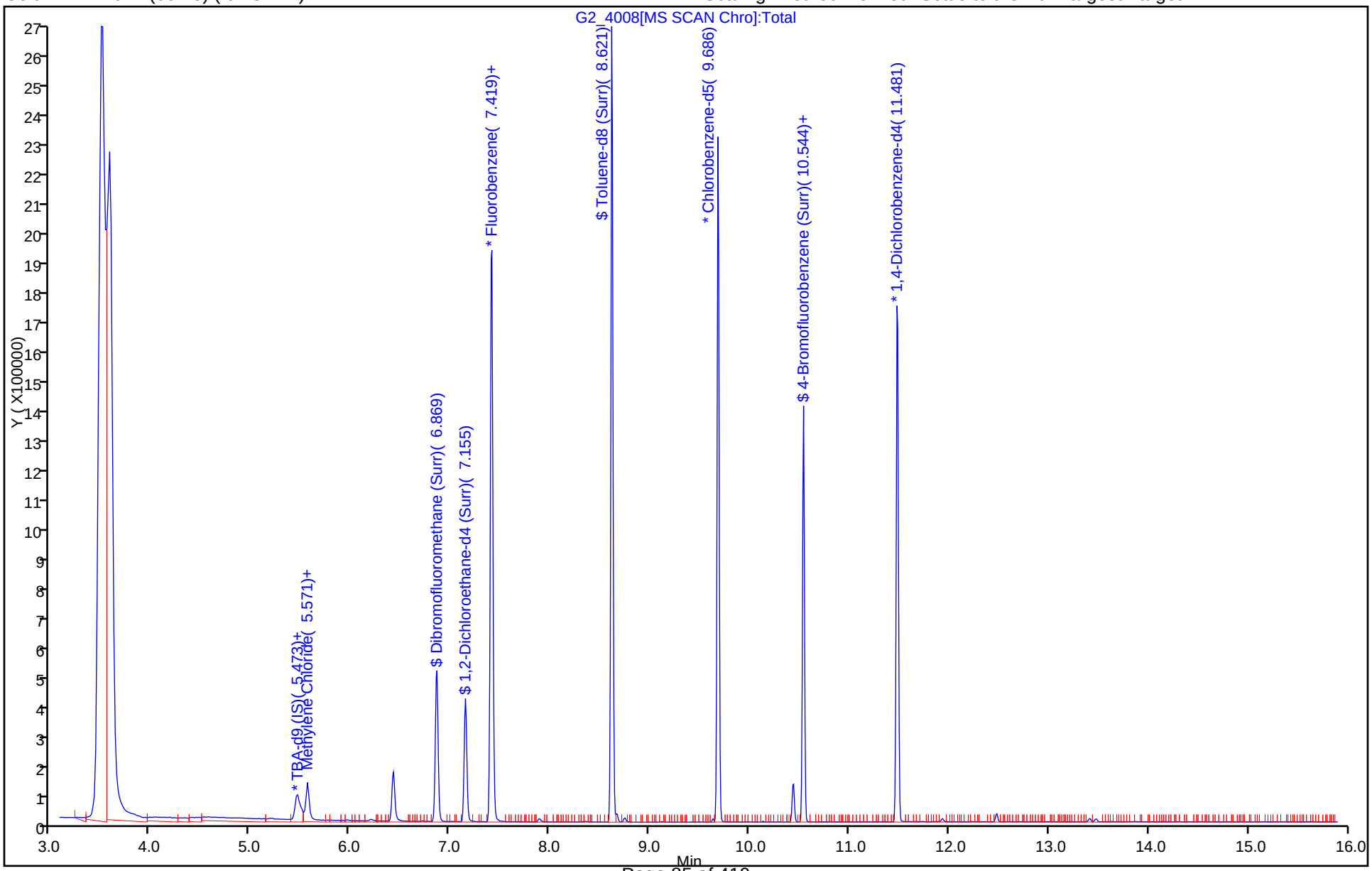
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_4008.D

Injection Date:	03-May-2016 21:04:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	280-82226-A-4	Lab Sample ID:	280-82226-4	Worklist Smp#:	36
Client ID:	041916TB				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Report Date: 04-May-2016 07:13:13 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_4008.D

Injection Date: 03-May-2016 21:04:30 Instrument ID: VMS_G2

Lims ID: 280-82226-A-4 Lab Sample ID: 280-82226-4

Client ID: 041916TB

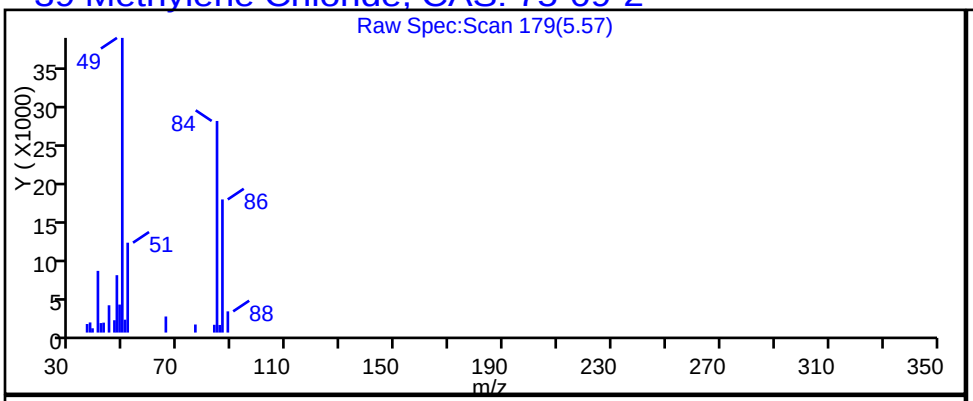
Operator ID: moanm ALS Bottle#: 42 Worklist Smp#: 36

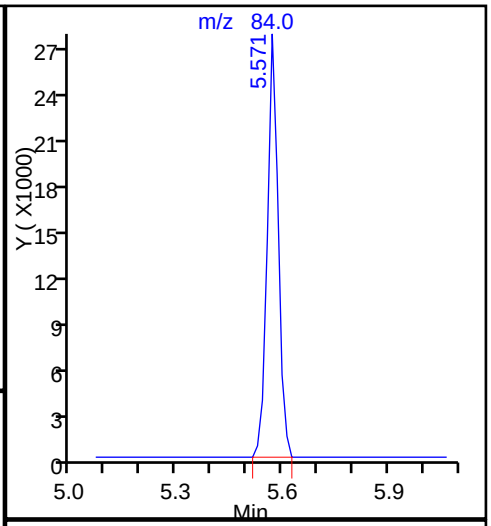
Purge Vol: 20.000 mL Dil. Factor: 1.0000

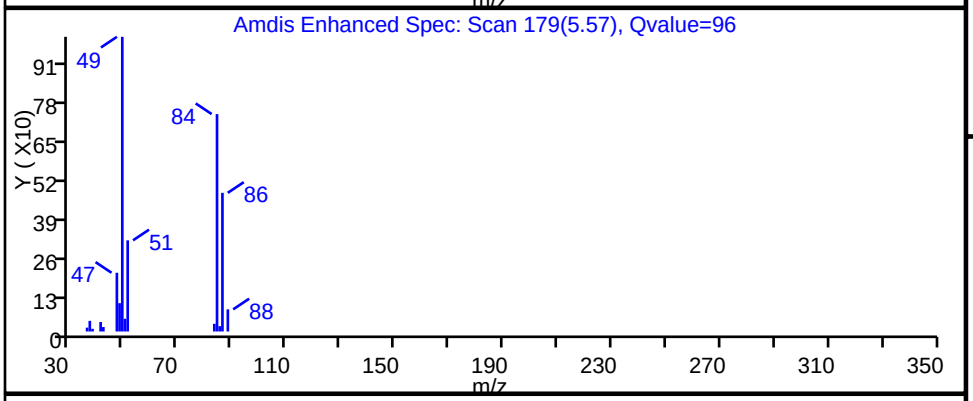
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid

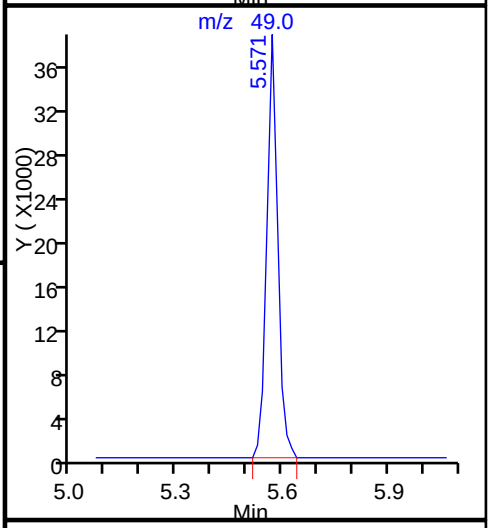
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

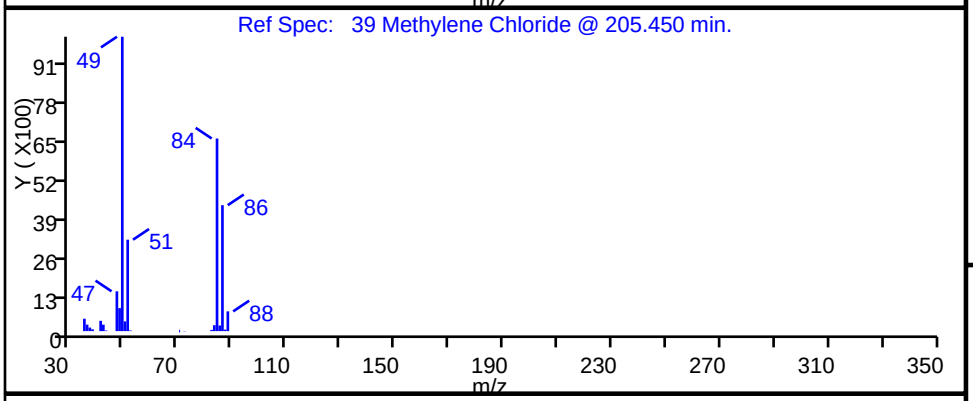
39 Methylene Chloride, CAS: 75-09-2

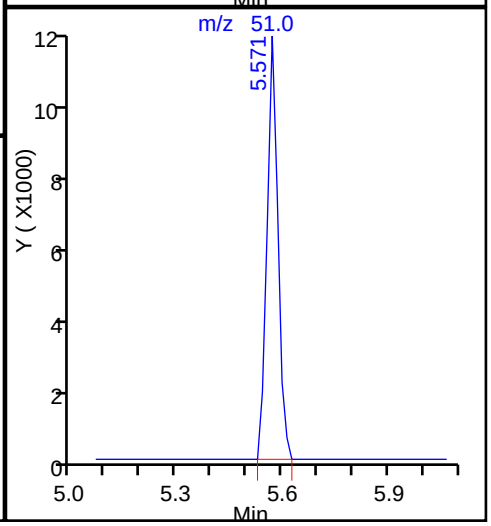


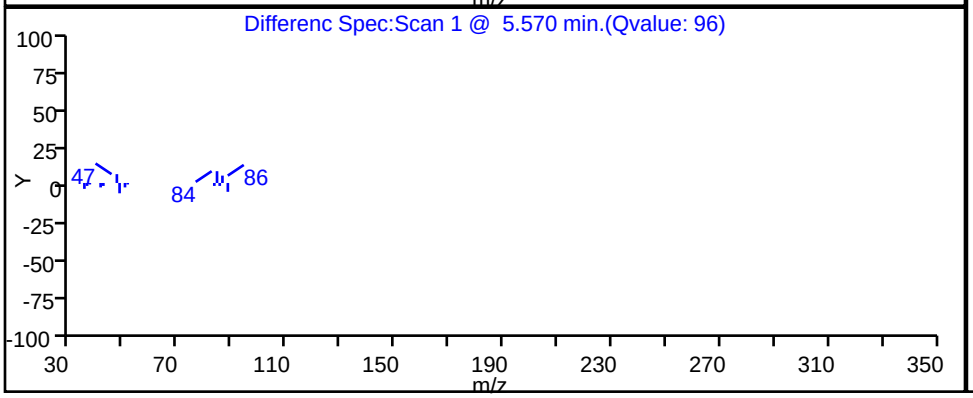












FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/10	G2_3363.D
Level 2	IC 280-320302/11	G2_3364.D
Level 3	IC 280-320302/12	G2_3365.D
Level 4	IC 280-320302/13	G2_3366.D
Level 5	IC 280-320302/14	G2_3367.D
Level 6	IC 280-320302/15	G2_3368.D
Level 7	IC 280-320302/16	G2_3369.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	+++++ 0.3661	0.4019 0.3732	0.4369	0.4233	0.4845	Ave		0.4143				10.6		15.0			
Chloromethane	+++++ 0.3968	0.5189 0.3923	0.4879	0.4567	0.5319	Ave		0.4641			0.1000	12.9		15.0			
Vinyl chloride	+++++ 0.3924	0.5112 0.3856	0.4801	0.4564	0.5211	Ave		0.4578				12.7		30.0			
Bromomethane	+++++ 0.2449	0.3302 0.2231	0.3078	0.2942	0.3267	Lin	0.4512	0.2195							0.9940		0.9900
Chloroethane	+++++ 0.2367	0.3285 0.2252	0.3052	0.3032	0.3190	Lin	0.4080	0.2205							0.9960		0.9900
Dichlorofluoromethane	+++++ 0.6675	0.8891 +++++	0.7777	0.7584	0.8599	Ave		0.7905				11.1		15.0			
Trichlorofluoromethane	+++++ 0.5144	0.6731 0.5381	0.6128	0.5840	0.6604	Ave		0.5971				10.7		15.0			
Ethyl ether	+++++ 0.1562	0.1501 0.1667	0.1615	0.1544	0.1853	Ave		0.1624				7.8		15.0			
Acrolein	+++++ 0.0137	0.0146 0.0145	0.0147	0.0136	0.0159	Ave		0.0145				5.7		15.0			
Acetone	+++++ 0.0239	0.0374 0.0246	0.0324	0.0298	0.0315	Lin1	0.0693	0.0246							0.9930		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	+++++ 0.2578	0.3147 0.2719	0.3051	0.2909	0.3322	Ave		0.2954				9.3		15.0			
1,1-Dichloroethene	+++++ 0.3339	0.3543 0.3515	0.3542	0.3554	0.4100	Ave		0.3599				7.2		30.0			
Iodomethane	+++++ 0.4683	0.5009 0.4961	0.5005	0.4892	0.5704	Ave		0.5042				6.9		15.0			
Methyl acetate	+++++ 0.0673	0.0853 0.0690	0.0850	0.0799	0.0885	Ave		0.0792				11.3		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 0.5864	0.6377 0.5848	0.6704	0.6581	0.7519	Ave		0.6482				9.6		15.0			
Carbon disulfide	+++++ 1.4343	1.7636 1.4369	1.7592	1.6701	1.8684	Ave		1.6554				11.0		15.0			
t-Butyl alcohol	+++++ 0.0080	0.0086 0.0090	0.0089	0.0083	0.0099	Ave		0.0088				7.5		15.0			
Methylene Chloride	+++++ 0.2866	0.5379 0.2954	0.4459	0.3535	0.3726	Lin2	0.2416	0.3075							0.9900		0.9900
Acrylonitrile	+++++ 0.0349	0.0399 0.0363	0.0404	0.0373	0.0427	Ave		0.0386				7.5		15.0			
Methyl tert-butyl ether	+++++ 0.4462	0.4309 0.4753	0.4540	0.4373	0.5270	Ave		0.4618				7.7		15.0			
trans-1,2-Dichloroethene	+++++ 0.3466	0.3943 0.3677	0.3900	0.3810	0.4342	Ave		0.3857				7.6		15.0			
Hexane	+++++ 3.1397	3.0879 3.3203	3.2431	3.3849	3.9993	Ave		3.3625				9.8		15.0			
Vinyl acetate	+++++ 0.2583	0.2399 0.2693	0.2643	0.2481	0.2995	Ave		0.2632				7.9		15.0			
1,1-Dichloroethane	+++++ 0.5829	0.7165 0.5998	0.6931	0.6650	0.7472	Ave		0.6674			0.1000	9.7		15.0			
2-Butanone (MEK)	+++++ 0.0413	0.0598 0.0431	0.0514	0.0455	0.0521	Ave		0.0489				14.1		15.0			
2-Butanol	+++++ 0.0061	0.0041 0.0068	0.0061	0.0057	0.0071	Lin2	-0.036	0.0067							0.9920		0.9900
cis-1,2-Dichloroethene	+++++ 0.3175	0.3332 0.3366	0.3396	0.3379	0.3910	Ave		0.3426				7.3		15.0			
2,2-Dichloropropane	+++++ 0.4725	0.5525 0.4887	0.5423	0.5220	0.5942	Ave		0.5287				8.4		15.0			
Chlorobromomethane	+++++ 0.0994	0.1187 0.1069	0.1152	0.1085	0.1209	Ave		0.1116				7.3		15.0			
Chloroform	+++++ 0.4920	0.5962 0.5095	0.5866	0.5581	0.6223	Ave		0.5608				9.1		30.0			
Tetrahydrofuran	+++++ 0.0258	0.0238 0.0280	0.0254	0.0236	0.0282	Ave		0.0258				7.7		15.0			
Isobutyl alcohol	+++++ 0.0027	0.0029 0.0029	0.0031	0.0028	0.0031	Ave		0.0029				5.4		15.0			
1,1,1-Trichloroethane	+++++ 0.4910	0.5908 0.5102	0.5630	0.5478	0.6221	Ave		0.5541				8.8		15.0			
Cyclohexane	+++++ 0.6923	0.6519 0.7016	0.6895	0.7532	0.8860	Ave		0.7291				11.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 0.4877	0.5178 0.5051	0.5437	0.5399	0.6231	Ave		0.5362				8.9		15.0			
Carbon tetrachloride	+++++ 0.4308	0.5049 0.4503	0.4846	0.4795	0.5412	Ave		0.4819				8.1		15.0			
1,2-Dichloroethane	0.2459 0.2444	0.3027 0.2564	0.3102	0.2714	0.3080	Ave		0.2770				10.6		15.0			
Benzene	1.3089 1.2832	1.4483 1.3046	1.4485	1.4056	1.6235	Ave		1.4032				8.5		15.0			
Trichloroethene	+++++ 0.3252	0.3490 0.3507	0.3437	0.3417	0.3944	Ave		0.3508				6.6		15.0			
2-Pentanone	+++++ 0.0632	0.0647 0.0665	0.0677	0.1085	0.0861	Lin	0.1758	0.0645							0.9940		0.9900
1,2-Dichloropropane	+++++ 0.2769	0.3281 0.2841	0.3153	0.2999	0.3447	Ave		0.3082				8.5		30.0			
Methylcyclohexane	+++++ 0.5680	0.5814 0.5748	0.5914	0.6232	0.7168	Ave		0.6093				9.2		15.0			
1,4-Dioxane	+++++ 0.0008	0.0006 0.0010	0.0008	0.0009	0.0010	Lin2	-0.006	0.0009							0.9910		0.9900
Dibromomethane	+++++ 0.0932	0.1104 0.1009	0.1152	0.1018	0.1147	Ave		0.1060				8.3		15.0			
Dichlorobromomethane	0.3142 0.3063	0.3508 0.3286	0.3393	0.3279	0.3746	Ave		0.3345				6.9		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0424	0.0281 0.0520	0.0265	0.0289	0.0376	Lin	-0.106	0.0521							0.9930		0.9900
cis-1,3-Dichloropropene	1.4755 1.7712	1.6337 1.9275	1.6693	1.6895	2.0947	Ave		1.7516				11.6		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.0908	0.0795 0.0934	0.0813	0.0847	0.1072	Ave		0.0895				11.4		15.0			
Toluene	+++++ 1.2947	1.2402 1.2688	1.3206	1.3934	1.6339	Ave		1.3586				10.6		30.0			
Ethyl methacrylate	+++++ 0.7823	0.5598 0.8767	0.6095	0.6682	0.8720	Lin1	-0.413	0.8554							0.9960		0.9900
trans-1,3-Dichloropropene	+++++ 0.2694	0.2601 0.2849	0.2761	0.2678	0.3241	Ave		0.2804				8.2		15.0			
1,1,2-Trichloroethane	+++++ 0.1308	0.1518 0.1405	0.1583	0.1400	0.1594	Ave		0.1468				7.8		15.0			
2-Hexanone	+++++ 0.2874	0.2529 0.3043	0.2459	0.2494	0.3337	Ave		0.2789				12.8		15.0			
1,3-Dichloropropane	1.1704 1.2102	1.3527 1.2892	1.4333	1.2926	1.5223	Ave		1.3244				9.3		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 1.3101	1.5183 1.4420	1.4381	1.4174	1.6375	Ave		1.4606				7.5		15.0			
Chlorodibromomethane	0.6982 0.7705	0.8233 0.8627	0.8526	0.7714	0.9249	Ave		0.8148				9.1		15.0			
Ethylene Dibromide	+++++ 0.5656	0.6077 0.6269	0.6313	0.5642	0.6768	Ave		0.6121				7.0		15.0			
1-Chlorohexane	+++++ 2.3517	1.6056 2.6437	1.6762	2.0973	2.7377	Lin1	-0.659	2.5917							0.9950		0.9900
Chlorobenzene	4.1784 3.6387	4.4690 3.8488	4.2081	3.9834	4.5854	Ave		4.1303			0.3000	8.1		15.0			
1,1,1,2-Tetrachloroethane	1.1719 1.1898	1.2561 1.2660	1.2417	1.2048	1.4090	Ave		1.2485				6.3		15.0			
Ethylbenzene	+++++ 2.4224	2.4689 2.5069	2.3908	2.5160	2.9773	Ave		2.5470				8.5		30.0			
m-Xylene & p-Xylene	+++++ 2.9106	2.8121 3.0931	2.7663	3.0138	3.5796	Ave		3.0293				9.8		15.0			
Styrene	+++++ 4.0500	3.3493 4.0216	3.5230	4.0286	4.8976	Ave		3.9783				13.6		15.0			
o-Xylene	+++++ 2.7357	2.5958 2.7061	2.6073	2.8414	3.3737	Ave		2.8100				10.3		15.0			
Bromoform	+++++ 0.3439	0.3198 0.3982	0.3492	0.3294	0.3931	Ave		0.3556			0.1000	9.2		15.0			
Isopropylbenzene	+++++ 4.8466	4.2751 4.6340	4.5092	5.2688	6.1577	Ave		4.9486				13.8		15.0			
Cyclohexanone	+++++ 0.0133	0.0112 0.0151	0.0109	0.0110	0.0155	Lin1	-0.236	0.0147							0.9940		0.9900
1,1,2,2-Tetrachloroethane	0.4613 0.4332	0.5202 0.4797	0.5381	0.4710	0.5365	Ave		0.4914			0.3000	8.3		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1248	0.1209 0.1395	0.1300	0.1251	0.1496	Ave		0.1316				8.2		15.0			
1,2,3-Trichloropropane	+++++ 0.1114	0.1355 0.1234	0.1400	0.1207	0.1365	Ave		0.1279				8.7		15.0			
Bromobenzene	+++++ 0.9000	0.9497 0.9783	0.9756	0.9523	1.0859	Ave		0.9736				6.3		15.0			
N-Propylbenzene	+++++ 1.4214	1.2339 1.5238	1.3415	1.5055	1.7480	Ave		1.4623				12.1		15.0			
1,3,5-Trimethylbenzene	+++++ 4.0005	3.6623 3.9099	3.8356	4.3269	4.9937	Ave		4.1215				11.7		15.0			
2-Chlorotoluene	+++++ 1.1058	1.1242 1.1441	1.1427	1.1990	1.3419	Ave		1.1763				7.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 1.0749	1.0490 1.1909	1.0478	1.1385	1.3024	Ave		1.1339				8.8		15.0			
tert-Butylbenzene	+++++ 4.0895	3.4810 4.2213	3.6991	4.2973	5.0377	Ave		4.1377				13.1		15.0			
1,2,4-Trimethylbenzene	+++++ 3.9682	3.8931 4.0041	3.9723	4.3431	4.9387	Ave		4.1866				9.6		15.0			
sec-Butylbenzene	+++++ 1.1582	0.9849 1.2641	1.0229	1.1984	1.3967	Ave		1.1709				13.1		15.0			
4-Isopropyltoluene	+++++ 4.6171	4.1334 4.5043	4.3464	5.0256	5.7463	Ave		4.7289				12.3		15.0			
1,3-Dichlorobenzene	+++++ 1.9122	2.2058 2.0510	2.1132	2.1030	2.3479	Ave		2.1222				6.9		15.0			
1,4-Dichlorobenzene	2.1186 1.8329	2.1932 1.9698	2.0634	2.0520	2.2627	Ave		2.0704				6.9		15.0			
n-Butylbenzene	+++++ 4.5327	4.2036 4.4342	4.2260	5.0193	5.6810	Ave		4.6828				12.2		15.0			
1,2-Dichlorobenzene	+++++ 1.5327	1.6917 1.6385	1.6245	1.6325	1.8571	Ave		1.6628				6.5		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0567	0.0594 0.0653	0.0543	0.0501	0.0677	Ave		0.0589				11.3		15.0			
1,2,4-Trichlorobenzene	+++++ 1.0505	0.8954 1.0747	0.8618	0.9756	1.2559	Ave		1.0190				14.0		15.0			
Hexachlorobutadiene	0.8346 0.8298	0.9160 +++++	0.7892	0.8940	0.9938	Ave		0.8762				8.4		15.0			
Naphthalene	+++++ 1.2373	0.7779 1.3070	0.8297	0.9750	1.3573	Lin1	-0.722	1.3033							0.9970		0.9900
1,2,3-Trichlorobenzene	+++++ 0.7707	0.7491 0.7872	0.6842	0.7492	0.8977	Ave		0.7730				9.1		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/10	G2_3363.D
Level 2	IC 280-320302/11	G2_3364.D
Level 3	IC 280-320302/12	G2_3365.D
Level 4	IC 280-320302/13	G2_3366.D
Level 5	IC 280-320302/14	G2_3367.D
Level 6	IC 280-320302/15	G2_3368.D
Level 7	IC 280-320302/16	G2_3369.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	+++++ 1779575	52928 3754063	106168	292902	605199	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	+++++ 1928629	68331 3946169	118561	316002	664427	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	+++++ 1907373	67317 3878062	116650	315852	650962	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Lin	+++++ 1190473	43485 2244069	74790	203594	408083	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Lin	+++++ 1150465	43256 2265276	74157	209835	398472	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	+++++ 3244723	117079 +++++	188967	524785	1074185	+++++ 30.0	1.00 +++++	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 2500540	88631 5412577	148893	404132	825006	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	+++++ 759091	19771 1676633	39251	106863	231425	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 664687	19220 1462792	35748	94114	197986	+++++ 300	10.00 600	20.0	50.0	100.0
Acetone	FB	Lin1	+++++ 464357	19690 989399	31457	82414	157489	+++++ 120	4.00 240	8.00	20.0	40.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	+++++ 1252846	41435 2734741	74133	201282	414930	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethene	FB	Ave	+++++ 1623004	46660 3535584	86070	245910	512124	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Iodomethane	FB	Ave	+++++ 2276112	65962 4989443	121610	338492	712550	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	+++++ 1636782	56164 3470196	103319	276316	552935	+++++ 150	5.00 300	10.0	25.0	50.0
Allyl chloride	FB	Ave	+++++ 2850325	83969 5881519	162908	455397	939242	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 6971609	232229 14451939	427470	1155698	2333901	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
t-Butyl alcohol	FB	Ave	+++++ 390275	11367 900597	21746	57258	123623	+++++ 300	10.0 600	20.0	50.0	100
Methylene Chloride	FB	Lin2	+++++ 1393234	70826 2970882	108348	244604	465407	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrylonitrile	FB	Ave	+++++ 1695174	52503 3655586	98168	258338	533423	+++++ 300	10.0 600	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	+++++ 2168717	56738 4780512	110324	302602	658326	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	+++++ 1684814	51919 3698424	94769	263681	542412	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	+++++ 3131114	80033 6739530	159825	480397	1014930	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	+++++ 2511357	63184 5416264	128448	343363	748297	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	+++++ 2833342	94347 6033247	168426	460165	933320	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 803143	31474 1734210	49922	125844	260350	+++++ 120	4.00 240	8.00	20.0	40.0
2-Butanol	FB	Lin2	+++++ 445080	8100 1025184	22150	59228	132274	+++++ 450	15.0 900	30.0	75.0	150
cis-1,2-Dichloroethene	FB	Ave	+++++ 1543418	43879 3385643	82511	233808	488466	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	+++++ 2296519	72753 4915682	131775	361182	742293	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobromomethane	FB	Ave	+++++ 483297	15636 1075092	27988	75102	150973	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroform	FB	Ave	+++++ 2391493	78503 5124646	142540	386230	777362	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 251132	6264 563318	12347	32618	70331	+++++ 60.0	2.00 120	4.00	10.0	20.0
Isobutyl alcohol	FB	Ave	+++++ 325822	9539 722239	18555	48319	96678	+++++ 750	25.0 1500	50.0	125	250
1,1,1-Trichloroethane	FB	Ave	+++++ 2386391	77800 5131334	136804	379081	777071	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	+++++ 3365136	85838 7057141	167542	521238	1106774	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	+++++ 2370615	68179 5080109	132124	373573	778349	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	+++++ 2093900	66488 4528999	117752	331812	676026	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	12056 1187828	39857 2578731	75371	187787	384766	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	64167 6237157	190717 13121738	351967	972649	2027986	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	+++++ 1580874	45961 3527157	83505	236461	492675	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Lin	+++++ 614114	17034 1337870	32889	150214	215029	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	+++++ 1345859	43205 2857275	76626	207499	430595	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Methylcyclohexane	FB	Ave	+++++ 2760645	76560 5781181	143700	431228	895384	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin2	+++++ 76960	1611 193813	3788	11812	24650	+++++ 600	20.0 1200	40.0	100	200
Dibromomethane	FB	Ave	+++++ 452971	14542 1014698	27986	70472	143286	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorobromomethane	FB	Ave	15403 1488979	46193 3304675	82441	226869	467964	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Lin	+++++ 206246	3695 522519	6450	19967	47013	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	13622 1766404	42342 3912514	82265	239783	531580	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	+++++ 1764505	41864 3758178	78975	234548	535596	+++++ 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	+++++ 6292940	163309 12761641	320889	964184	2040969	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Lin1	+++++ 780160	14509 1779494	30039	94833	221292	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	+++++ 1309323	34250 2865504	67092	185283	404867	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 635597	19994 1413044	38469	96902	199143	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	+++++ 1146559	26214 2470484	48471	141601	338734	+++++ 120	4.00 240	8.00	20.0	40.0
1,3-Dichloropropane	CBZ	Ave	10805 1206892	35061 2616740	70636	183453	386333	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	+++++ 1306535	39352 2927045	70869	201167	415552	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorodibromomethane	CBZ	Ave	6446 768438	21339 1751046	42017	109486	234723	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylene Dibromide	CBZ	Ave	+++++ 564038	15750 1272532	31111	80077	171767	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	Lin1	+++++ 1172655	20807 2683081	41302	148826	347387	+++++ 15.0	0.500 30.0	1.00	2.50	5.00
Chlorobenzene	CBZ	Ave	38575 3628786	115829 7812338	207380	565338	1163679	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	10819 1186530	32556 2569689	61194	170991	357568	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	+++++ 2415766	63991 5088473	117820	357079	755587	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	+++++ 2902670	72885 6278339	136327	427728	908437	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	+++++ 4039014	86809 8162971	173617	571753	1242905	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	+++++ 2728264	67280 5492779	128492	403263	856177	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	+++++ 342929	8289 808361	17209	46746	99771	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	+++++ 7418138	166666 14197299	325453	1097117	2363043	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Lin1	+++++ 532452	11590 1223578	21550	62613	157204	+++++ 1200	40.0 2400	80.0	200	400
1,1,2,2-Tetrachloroethane	DCB	Ave	6095 663063	20280 1469722	38836	98084	205898	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 191021	4715 427263	9382	26049	57395	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 170529	5283 377941	10102	25141	52363	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	+++++ 1377601	37023 2997359	70416	198298	416701	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	+++++ 2175577	48103 4668495	96821	313486	670803	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	+++++ 6123051	142773 11978777	276832	900973	1916337	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	+++++ 1692514	43827 3505310	82478	249662	514973	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 1645179	40896 3648733	75622	237070	499791	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	+++++ 6259387	135707 12932862	266984	894809	1933242	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	+++++ 6073732	151772 12267542	286702	904356	1895236	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	+++++ 1772738	38396 3872887	73829	249532	535994	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 10:14 Calibration End Date: 04/12/2016 12:10 Calibration ID: 25663

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	+++++ 7066922	161142 13799883	313699	1046474	2205137	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	+++++ 2926851	85993 6283851	152522	437908	901012	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	27991 2805461	85502 6035069	148929	427289	868315	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	+++++ 6937702	163878 13585221	305009	1045164	2180102	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	+++++ 2345880	65951 5020008	117250	339934	712672	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 86860	2317 200041	3921	10427	25971	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 1607958	34907 3292748	62199	203156	481956	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	11027 1270034	35709 +++++	56960	186155	381365	0.300 30.0	1.00 +++++	2.00	5.00	10.0
Naphthalene	DCB	Lin1	+++++ 1893854	30326 4004235	59881	203017	520870	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 1179694	29202 2411625	49380	155996	344490	+++++ 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: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3363.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-Apr-2016 10:14:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:00 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 10:47:10

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	5.473	5.473	0.000	0	209983	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2042573	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.686	0.007	88	384668	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	550498	12.5	12.5	
13 Dichlorodifluoromethane	85		3.811				ND	ND	
14 Chloromethane	50		4.007				ND	ND	
16 Vinyl chloride	62		4.160				ND	ND	
19 Bromomethane	94		4.510				ND	ND	
20 Chloroethane	64		4.579				ND	ND	
21 Dichlorofluoromethane	67		4.705				ND	ND	
22 Trichlorofluoromethane	101		4.789				ND	ND	
25 Ethyl ether	59		4.971				ND	ND	
28 Acrolein	56		5.096				ND	ND	
29 Acetone	43		5.194				ND	ND	
31 1,1,2-Trichloro-1,2,2-trif	151		5.222				ND	ND	
32 1,1-Dichloroethene	96		5.236				ND	ND	
34 Iodomethane	142		5.403				ND	ND	
35 Methyl acetate	43		5.431				ND	ND	
36 3-Chloro-1-propene	41		5.487				ND	ND	
37 Carbon disulfide	76		5.501				ND	ND	
38 2-Methyl-2-propanol	59		5.529				ND	ND	
39 Methylene Chloride	84		5.571				ND	ND	
40 Acrylonitrile	53		5.711				ND	ND	
41 Methyl tert-butyl ether	73		5.767				ND	ND	
42 trans-1,2-Dichloroethene	96		5.795				ND	ND	
43 Hexane	57		5.976				ND	ND	
44 Vinyl acetate	43		6.054				ND	ND	
46 1,1-Dichloroethane	63		6.118				ND	ND	
50 2-Butanone (MEK)	43		6.476				ND	ND	
52 sec-Butyl Alcohol	45		6.526				ND	ND	
53 cis-1,2-Dichloroethene	96		6.540				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77		6.576				ND	ND	
56 Chlorobromomethane	128		6.733				ND	ND	
57 Chloroform	83		6.747				ND	ND	
58 Tetrahydrofuran	42		6.769				ND	ND	
59 Isobutyl alcohol	41		6.933				ND	ND	
60 1,1,1-Trichloroethane	97		6.969				ND	ND	
61 Cyclohexane	56		7.048				ND	ND	
62 1,1-Dichloropropene	75		7.069				ND	ND	
63 Carbon tetrachloride	117		7.112				ND	ND	
64 1,2-Dichloroethane	62	7.219	7.212	0.007	57	12056	0.3000	0.2664	
66 Benzene	78	7.248	7.248	0.000	97	64167	0.3000	0.2798	
67 n-Heptane	43		7.341				ND	ND	
69 Trichloroethene	95		7.705				ND	ND	
70 2-Pentanone	43		7.734				ND	ND	
72 1,2-Dichloropropane	63		7.884				ND	ND	
73 Methylcyclohexane	55		7.913				ND	ND	
74 1,4-Dioxane	88		7.941				ND	ND	
75 Dibromomethane	93		7.991				ND	ND	
76 Dichlorobromomethane	83	8.063	8.063	0.000	95	15403	0.3000	0.2818	
78 2-Chloroethyl vinyl ether	63		8.206				ND	ND	
79 cis-1,3-Dichloropropene	75	8.392	8.385	0.007	93	13622	0.3000	0.2527	
80 4-Methyl-2-pentanone (MIBK	43		8.442				ND	ND	
81 Toluene	91		8.671				ND	ND	
82 Ethyl methacrylate	69		8.757				ND	ND	
83 trans-1,3-Dichloropropene	75		8.764				ND	ND	
84 1,1,2-Trichloroethane	97		8.921				ND	ND	
85 2-Hexanone	43		9.035				ND	ND	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	96	10805	0.3000	0.2651	
87 Tetrachloroethene	164		9.093				ND	ND	
88 Chlorodibromomethane	129	9.250	9.250	0.000	86	6446	0.3000	0.2571	
90 Ethylene Dibromide	107		9.371				ND	ND	
91 1-Chlorohexane	91		9.607				ND	ND	
92 Chlorobenzene	112	9.715	9.715	0.000	96	38575	0.3000	0.3035	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	85	10819	0.3000	0.2816	
94 Ethylbenzene	106		9.750				ND	ND	
95 m-Xylene & p-Xylene	106		9.829				ND	ND	
96 Styrene	104		10.137				ND	ND	
97 o-Xylene	106		10.144				ND	ND	
98 Bromoform	173		10.330				ND	ND	
99 Isopropylbenzene	105		10.401				ND	ND	
101 Cyclohexanone	55		10.508				ND	ND	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.587	0.007	90	6095	0.3000	0.2816	
103 trans-1,4-Dichloro-2-buten	53		10.623				ND	ND	
104 1,2,3-Trichloropropane	110		10.659				ND	ND	
105 Bromobenzene	156		10.709				ND	ND	
106 N-Propylbenzene	120		10.716				ND	ND	
107 1,3,5-Trimethylbenzene	105		10.823				ND	ND	
108 2-Chlorotoluene	126		10.830				ND	ND	
109 4-Chlorotoluene	126		10.902				ND	ND	
110 tert-Butylbenzene	119		11.116				ND	ND	
111 1,2,4-Trimethylbenzene	105		11.145				ND	ND	
112 sec-Butylbenzene	134		11.288				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119		11.381				ND	ND	
114 1,3-Dichlorobenzene	146		11.438				ND	ND	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	95	27991	0.3000	0.3070	
117 n-Butylbenzene	91		11.738				ND	ND	
118 1,2-Dichlorobenzene	146		11.853				ND	ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568				ND	ND	
121 1,2,4-Trichlorobenzene	180		13.490				ND	ND	
122 Hexachlorobutadiene	225	13.654	13.647	0.007	94	11027	0.3000	0.2866	
123 Naphthalene	128		13.840				ND	ND	
124 1,2,3-Trichlorobenzene	180		14.148				ND	ND	
S 149 1,2-Dichloroethene, Total	96				0		0.6000	0	
S 150 Trihalomethanes, Total	1				0		1.20	0.5389	
S 151 Xylenes, Total (URS)	1				0		0.6000	0	
S 152 Total BTEX	1				0			0.2798	
S 153 1,3-Dichloropropene, Total	1				0		0.6000	0.2527	
S 154 1,2-Dichloroethene, Total	1				0		0.6000	0	
S 155 Xylenes, Total	106				0		0.6000	0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-Main A_00026	Amount Added:	0.15	Units: uL
MV-Gas/Ket A_00044	Amount Added:	0.15	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.15	Units: uL
MV-567649-D_00001	Amount Added:	1.00	Units: uL

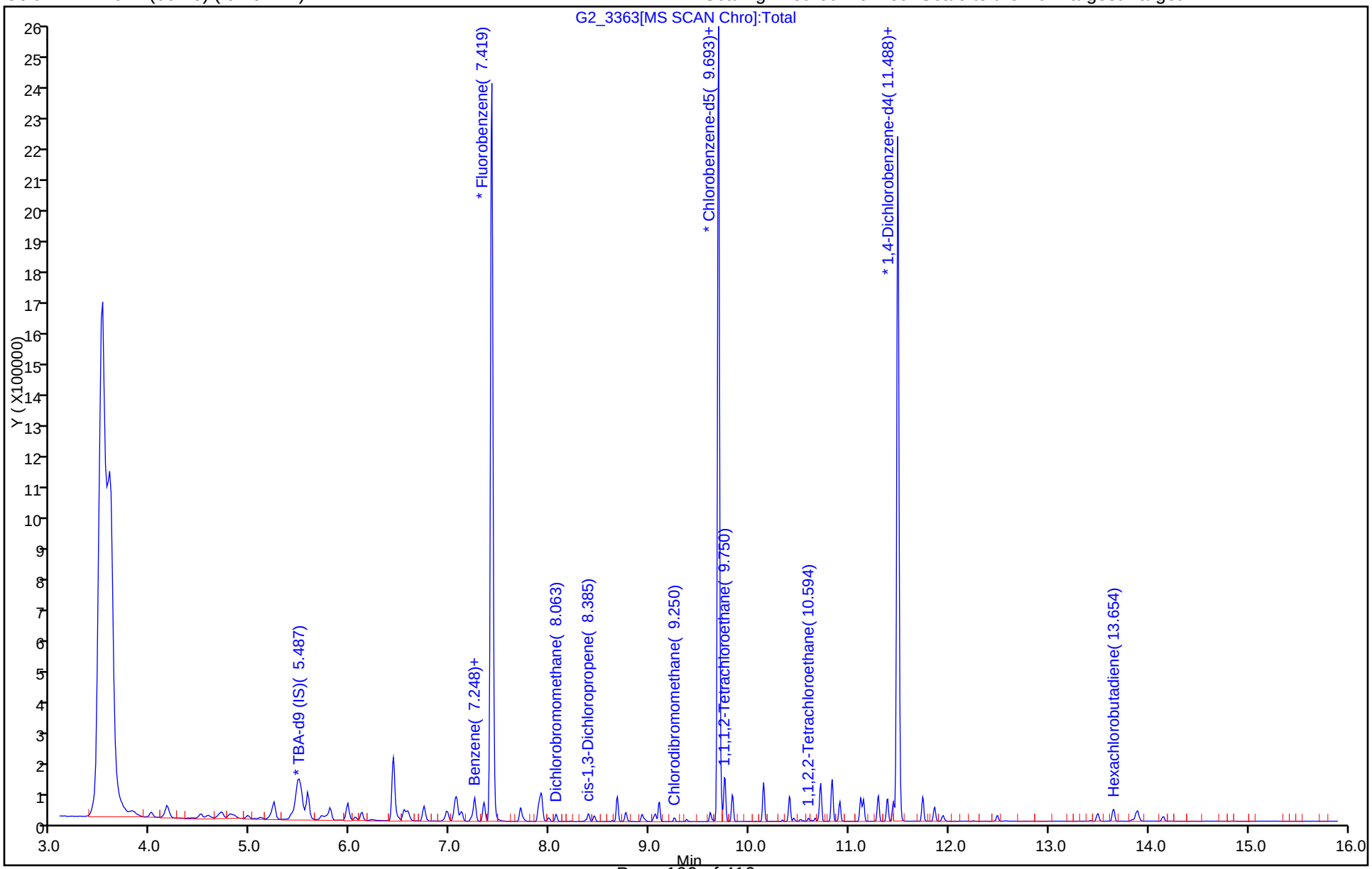
Report Date: 13-Apr-2016 05:42:00 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3363.D

Injection Date:	12-Apr-2016 10:14:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2016 10:33:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:04 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:04:07

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	5.473	5.473	0.000	0	198373	250.0	250.0	
* 2 Fluorobenzene	96	7.412	7.419	-0.007	98	1646000	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	323980	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.481	11.488	-0.007	97	487312	12.5	12.5	
13 Dichlorodifluoromethane	85	3.797	3.811	-0.014	98	52928	1.00	0.9701	
14 Chloromethane	50	4.007	4.007	0.000	98	68331	1.00	1.12	
16 Vinyl chloride	62	4.146	4.160	-0.014	98	67317	1.00	1.12	
19 Bromomethane	94	4.496	4.510	-0.014	90	43485	1.00	-0.5511	
20 Chloroethane	64	4.565	4.579	-0.014	99	43256	1.00	-0.3606	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	117079	1.00	1.15	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	88631	1.00	1.13	
25 Ethyl ether	59	4.970	4.971	-0.001	91	19771	1.00	0.9247	
28 Acrolein	56	5.096	5.096	0.000	98	19220	10.0	10.1	
29 Acetone	43	5.194	5.194	0.000	100	19690	4.00	3.26	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	41435	1.00	1.07	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	95	46660	1.00	0.9846	
34 Iodomethane	142	5.403	5.403	0.000	99	65962	1.00	0.99	
35 Methyl acetate	43	5.431	5.431	0.000	96	56164	5.00	5.39	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	83	83969	1.00	0.9837	
37 Carbon disulfide	76	5.501	5.501	0.000	99	232229	1.00	1.07	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	28	11367	10.0	9.82	
39 Methylene Chloride	84	5.571	5.571	0.000	96	70826	1.00	0.9636	
40 Acrylonitrile	53	5.711	5.711	0.000	99	52503	10.0	10.3	
41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	97	56738	1.00	0.9331	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	96	51919	1.00	1.02	
43 Hexane	57	5.976	5.976	0.000	94	80033	1.00	0.9183	
44 Vinyl acetate	43	6.046	6.054	-0.008	97	63184	2.00	1.82	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	94347	1.00	1.07	
50 2-Butanone (MEK)	43	6.475	6.476	-0.001	99	31474	4.00	4.89	
52 sec-Butyl Alcohol	45	6.518	6.526	-0.008	94	8100	15.0	14.5	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	43879	1.00	0.9725	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	72753	1.00	1.05	
56 Chlorobromomethane	128	6.733	6.733	0.000	94	15636	1.00	1.06	
57 Chloroform	83	6.740	6.747	-0.007	94	78503	1.00	1.06	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	6264	2.00	1.84	
59 Isobutyl alcohol	41	6.933	6.933	0.000	82	9539	25.0	25.0	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	77800	1.00	1.07	
61 Cyclohexane	56	7.047	7.048	-0.001	94	85838	1.00	0.8941	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	93	68179	1.00	0.9656	
63 Carbon tetrachloride	117	7.112	7.112	0.000	95	66488	1.00	1.05	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	88	39857	1.00	1.09	a
66 Benzene	78	7.248	7.248	0.000	96	190717	1.00	1.03	
67 n-Heptane	43	7.341	7.341	0.000	89	76237	1.00	0.8746	
69 Trichloroethene	95	7.705	7.705	0.000	97	45961	1.00	1.00	
70 2-Pentanone	43	7.734	7.734	0.000	98	17034	2.00	-0.7210	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	91	43205	1.00	1.06	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	76560	1.00	0.9543	
74 1,4-Dioxane	88	7.934	7.941	-0.007	75	1611	20.0	19.8	
75 Dibromomethane	93	7.984	7.991	-0.007	97	14542	1.00	1.04	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	46193	1.00	1.05	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	84	3695	1.00	2.57	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	42342	1.00	0.9327	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	41864	4.00	3.55	
81 Toluene	91	8.671	8.671	0.000	98	163309	1.00	0.9129	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	89	14509	1.00	1.14	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	34250	1.00	0.9276	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	19994	1.00	1.03	
85 2-Hexanone	43	9.035	9.035	0.000	96	26214	4.00	3.63	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	95	35061	1.00	1.02	
87 Tetrachloroethene	164	9.092	9.093	-0.001	97	39352	1.00	1.04	
88 Chlorodibromomethane	129	9.243	9.250	-0.007	89	21339	1.00	1.01	
90 Ethylene Dibromide	107	9.371	9.371	0.000	94	15750	1.00	0.99	
91 1-Chlorohexane	91	9.607	9.607	0.000	82	20807	0.5000	0.5640	
92 Chlorobenzene	112	9.707	9.715	-0.008	95	115829	1.00	1.08	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	94	32556	1.00	1.01	
94 Ethylbenzene	106	9.750	9.750	0.000	99	63991	1.00	0.9693	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	72885	1.00	0.9283	
96 Styrene	104	10.136	10.137	-0.001	83	86809	1.00	0.8419	
97 o-Xylene	106	10.144	10.144	0.000	89	67280	1.00	0.9238	
98 Bromoform	173	10.322	10.330	-0.008	92	8289	1.00	0.8993	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	166666	1.00	0.8639	
101 Cyclohexanone	55	10.508	10.508	0.000	93	11590	40.0	46.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	20280	1.00	1.06	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	86	4715	1.00	0.9187	
104 1,2,3-Trichloropropane	110	10.651	10.659	-0.007	86	5283	1.00	1.06	
105 Bromobenzene	156	10.708	10.709	-0.001	96	37023	1.00	0.9754	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	48103	1.00	0.8438	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	142773	1.00	0.8886	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	43827	1.00	0.9557	
109 4-Chlorotoluene	126	10.901	10.902	-0.001	99	40896	1.00	0.9251	
110 tert-Butylbenzene	119	11.116	11.116	0.000	95	135707	1.00	0.8413	
111 1,2,4-Trimethylbenzene	105	11.137	11.145	-0.008	96	151772	1.00	0.9299	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	38396	1.00	0.8412	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	-0.001	97	161142	1.00	0.8741	
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	85993	1.00	1.04	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	85502	1.00	1.06	
117 n-Butylbenzene	91	11.731	11.738	-0.007	99	163878	1.00	0.8977	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	95	65951	1.00	1.02	
119 1,2-Dibromo-3-Chloropropan	157	12.560	12.568	-0.008	63	2317	1.00	1.01	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	34907	1.00	0.8787	
122 Hexachlorobutadiene	225	13.640	13.647	-0.007	97	35709	1.00	1.05	
123 Naphthalene	128	13.833	13.840	-0.007	96	30326	1.00	1.15	
124 1,2,3-Trichlorobenzene	180	14.141	14.148	-0.008	95	29202	1.00	0.9690	
S 149 1,2-Dichloroethene, Total	96				0		2.00	1.99	
S 150 Trihalomethanes, Total	1				0		4.00	4.02	
S 151 Xylenes, Total (URS)	1				0		2.00	1.85	
S 152 Total BTEX	1				0			4.77	
S 153 1,3-Dichloropropene, Total	1				0		2.00	1.86	
S 154 1,2-Dichloroethene, Total	1				0		2.00	1.99	
S 155 Xylenes, Total	106				0		2.00	1.85	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.50	Units: uL
MV-Main A_00026	Amount Added:	0.50	Units: uL
MV-Gas/Ket A_00044	Amount Added:	0.50	Units: uL

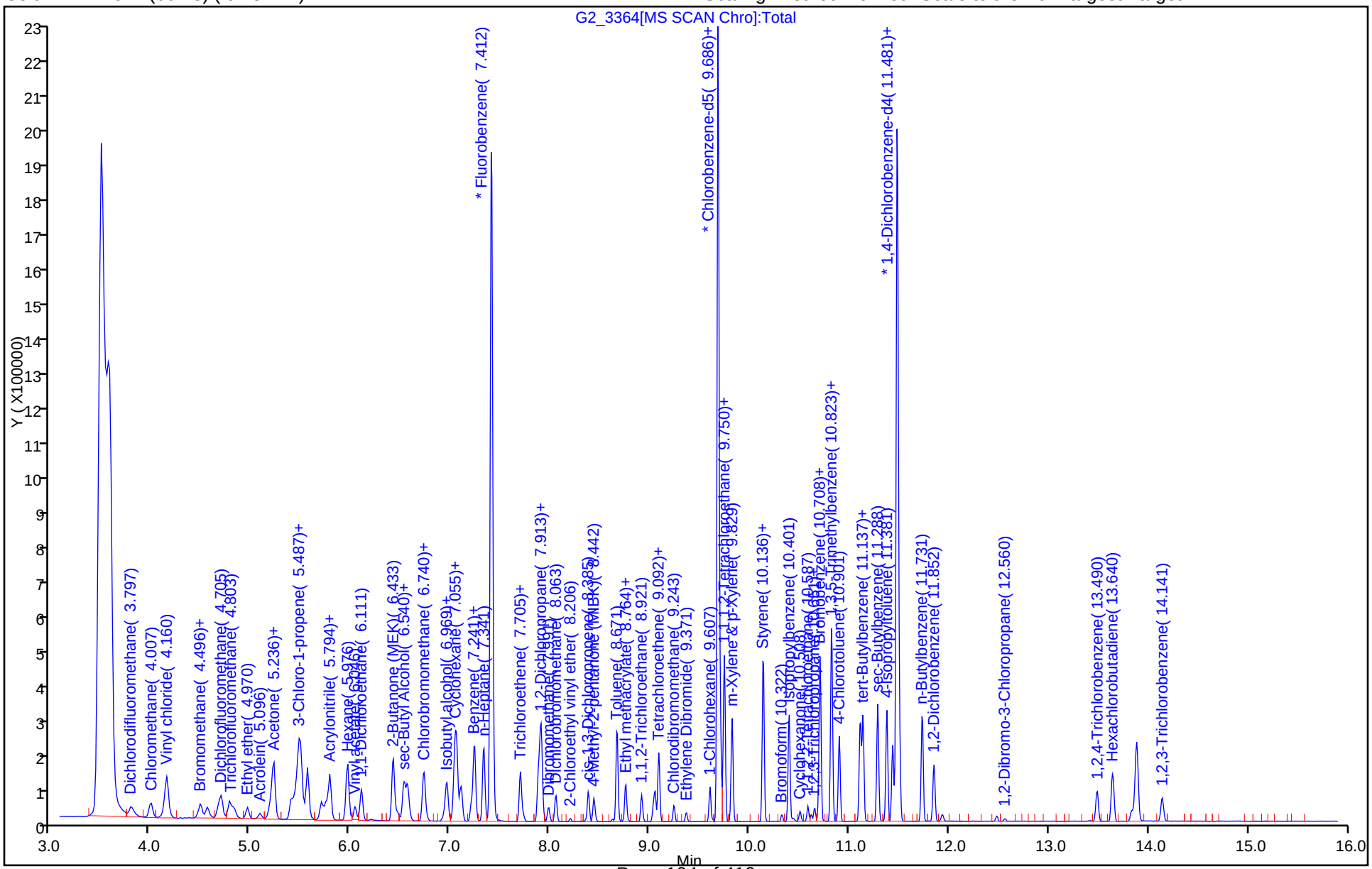
Report Date: 13-Apr-2016 05:42:04 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D

Injection Date:	12-Apr-2016 10:33:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

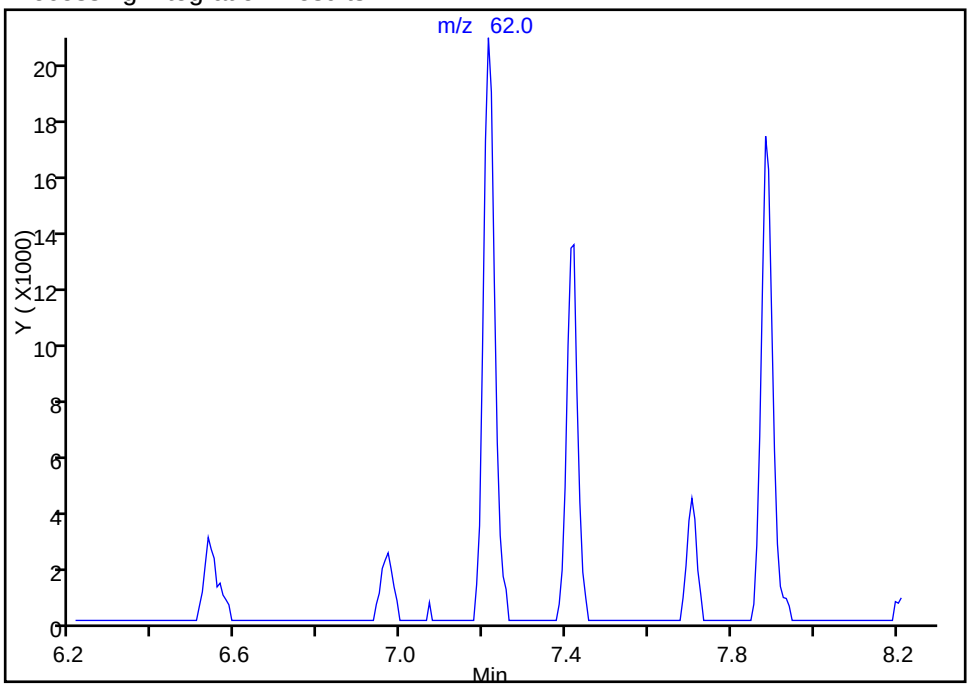
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3364.D				
Injection Date:	12-Apr-2016 10:33:30	Instrument ID:	VMS_G2		
Lims ID:	ic				
Client ID:					
Operator ID:	ilczyszynd	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

64 1,2-Dichloroethane, CAS: 107-06-2

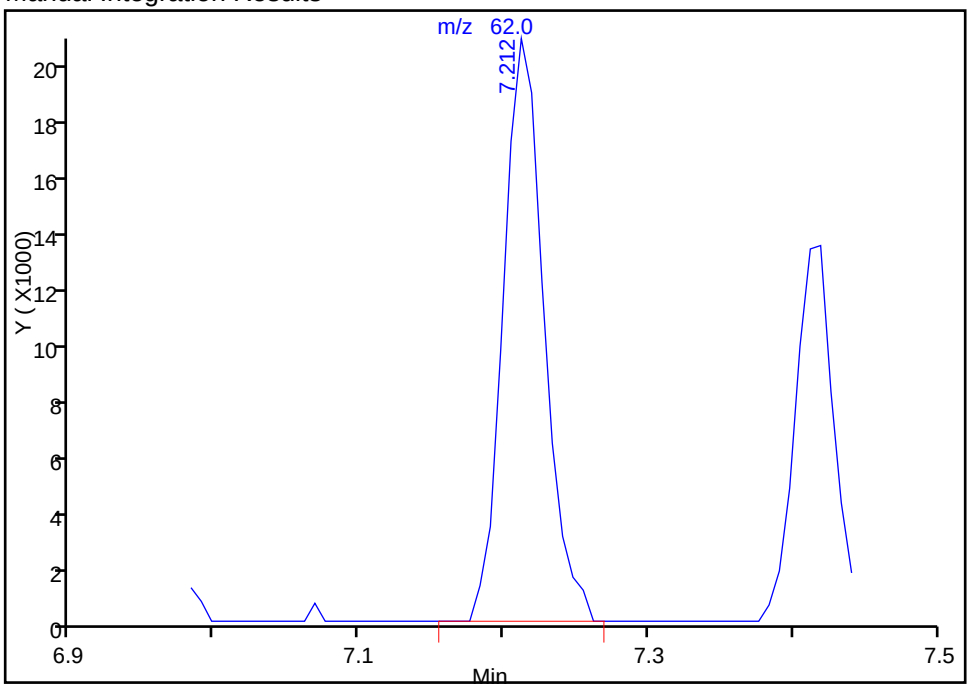
Not Detected
Expected RT: 7.21

Processing Integration Results



Manual Integration Results

RT: 7.21
Area: 39857
Amount: 1.092737
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:04:07
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2016 10:52:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:05 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:04:31

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	5.473	5.473	0.000	0	174222	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1518684	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	308006	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	451094	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	106168	2.00	2.11	
14 Chloromethane	50	4.007	4.007	0.000	99	118561	2.00	2.10	
16 Vinyl chloride	62	4.160	4.160	0.000	98	116650	2.00	2.10	
19 Bromomethane	94	4.510	4.510	0.000	91	74790	2.00	0.7486	
20 Chloroethane	64	4.579	4.579	0.000	100	74157	2.00	0.9179	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	188967	2.00	2.02	
22 Trichlorofluoromethane	101	4.803	4.789	0.014	98	148893	2.00	2.05	
25 Ethyl ether	59	4.971	4.971	0.000	92	39251	2.00	1.99	
28 Acrolein	56	5.096	5.096	0.000	99	35748	20.0	20.3	
29 Acetone	43	5.194	5.194	0.000	100	31457	8.00	7.71	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	74133	2.00	2.07	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	86070	2.00	1.97	
34 Iodomethane	142	5.403	5.403	0.000	98	121610	2.00	1.99	
35 Methyl acetate	43	5.431	5.431	0.000	96	103319	10.0	10.7	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	81	162908	2.00	2.07	
37 Carbon disulfide	76	5.515	5.501	0.014	99	427470	2.00	2.13	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	28	21746	20.0	20.4	
39 Methylene Chloride	84	5.571	5.571	0.000	95	108348	2.00	2.11	
40 Acrylonitrile	53	5.711	5.711	0.000	99	98168	20.0	20.9	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	110324	2.00	1.97	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	97	94769	2.00	2.02	
43 Hexane	57	5.976	5.976	0.000	94	159825	2.00	1.93	
44 Vinyl acetate	43	6.054	6.054	0.000	97	128448	4.00	4.02	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	168426	2.00	2.08	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	99	49922	8.00	8.41	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	92	22150	30.0	32.5	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	82511	2.00	1.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	131775	2.00	2.05	
56 Chlorobromomethane	128	6.733	6.733	0.000	95	27988	2.00	2.06	
57 Chloroform	83	6.747	6.747	0.000	94	142540	2.00	2.09	
58 Tetrahydrofuran	42	6.769	6.769	0.000	84	12347	4.00	3.94	
59 Isobutyl alcohol	41	6.940	6.933	0.007	88	18555	50.0	52.7	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	97	136804	2.00	2.03	
61 Cyclohexane	56	7.055	7.048	0.007	93	167542	2.00	1.89	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	132124	2.00	2.03	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	117752	2.00	2.01	
64 1,2-Dichloroethane	62	7.219	7.212	0.007	94	75371	2.00	2.24	a
66 Benzene	78	7.248	7.248	0.000	96	351967	2.00	2.06	
67 n-Heptane	43	7.341	7.341	0.000	90	153548	2.00	1.91	
69 Trichloroethene	95	7.705	7.705	0.000	97	83505	2.00	1.96	
70 2-Pentanone	43	7.734	7.734	0.000	98	32889	4.00	1.47	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	92	76626	2.00	2.05	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	143700	2.00	1.94	
74 1,4-Dioxane	88	7.934	7.941	-0.007	87	3788	40.0	40.3	
75 Dibromomethane	93	7.991	7.991	0.000	96	27986	2.00	2.17	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	82441	2.00	2.03	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	90	6450	2.00	3.05	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	82265	2.00	1.91	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	78975	8.00	7.27	
81 Toluene	91	8.678	8.671	0.007	98	320889	2.00	1.94	
82 Ethyl methacrylate	69	8.757	8.757	0.000	94	30039	2.00	1.91	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	67092	2.00	1.97	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	38469	2.00	2.16	
85 2-Hexanone	43	9.043	9.035	0.008	97	48471	8.00	7.05	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	98	70636	2.00	2.16	
87 Tetrachloroethene	164	9.093	9.093	0.000	96	70869	2.00	1.97	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	42017	2.00	2.09	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	31111	2.00	2.06	
91 1-Chlorohexane	91	9.607	9.607	0.000	85	41302	1.00	0.9010	
92 Chlorobenzene	112	9.715	9.715	0.000	96	207380	2.00	2.04	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	92	61194	2.00	1.99	
94 Ethylbenzene	106	9.750	9.750	0.000	99	117820	2.00	1.88	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	98	136327	2.00	1.83	
96 Styrene	104	10.144	10.137	0.007	84	173617	2.00	1.77	
97 o-Xylene	106	10.144	10.144	0.000	89	128492	2.00	1.86	
98 Bromoform	173	10.330	10.330	0.000	94	17209	2.00	1.96	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	325453	2.00	1.82	
101 Cyclohexanone	55	10.508	10.508	0.000	94	21550	80.0	75.7	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	95	38836	2.00	2.19	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	84	9382	2.00	1.97	
104 1,2,3-Trichloropropane	110	10.659	10.659	0.000	87	10102	2.00	2.19	
105 Bromobenzene	156	10.709	10.709	0.000	97	70416	2.00	2.00	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	96821	2.00	1.83	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	276832	2.00	1.86	
108 2-Chlorotoluene	126	10.830	10.830	0.000	94	82478	2.00	1.94	
109 4-Chlorotoluene	126	10.902	10.902	0.000	99	75622	2.00	1.85	
110 tert-Butylbenzene	119	11.116	11.116	0.000	94	266984	2.00	1.79	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	286702	2.00	1.90	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	73829	2.00	1.75	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	313699	2.00	1.84	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	97	152522	2.00	1.99	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	148929	2.00	1.99	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	305009	2.00	1.80	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	96	117250	2.00	1.95	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	71	3921	2.00	1.84	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	62199	2.00	1.69	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	89	56960	2.00	1.81	
123 Naphthalene	128	13.840	13.840	0.000	97	59881	2.00	1.83	
124 1,2,3-Trichlorobenzene	180	14.141	14.148	-0.007	94	49380	2.00	1.77	
S 149 1,2-Dichloroethene, Total	96				0		4.00	4.00	
S 150 Trihalomethanes, Total	1				0		8.00	8.18	
S 151 Xylenes, Total (URS)	1				0		4.00	3.68	
S 152 Total BTEX	1				0			9.57	
S 153 1,3-Dichloropropene, Total	1				0		4.00	3.88	
S 154 1,2-Dichloroethene, Total	1				0		4.00	4.00	
S 155 Xylenes, Total	106				0		4.00	3.68	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	1.00	Units: uL

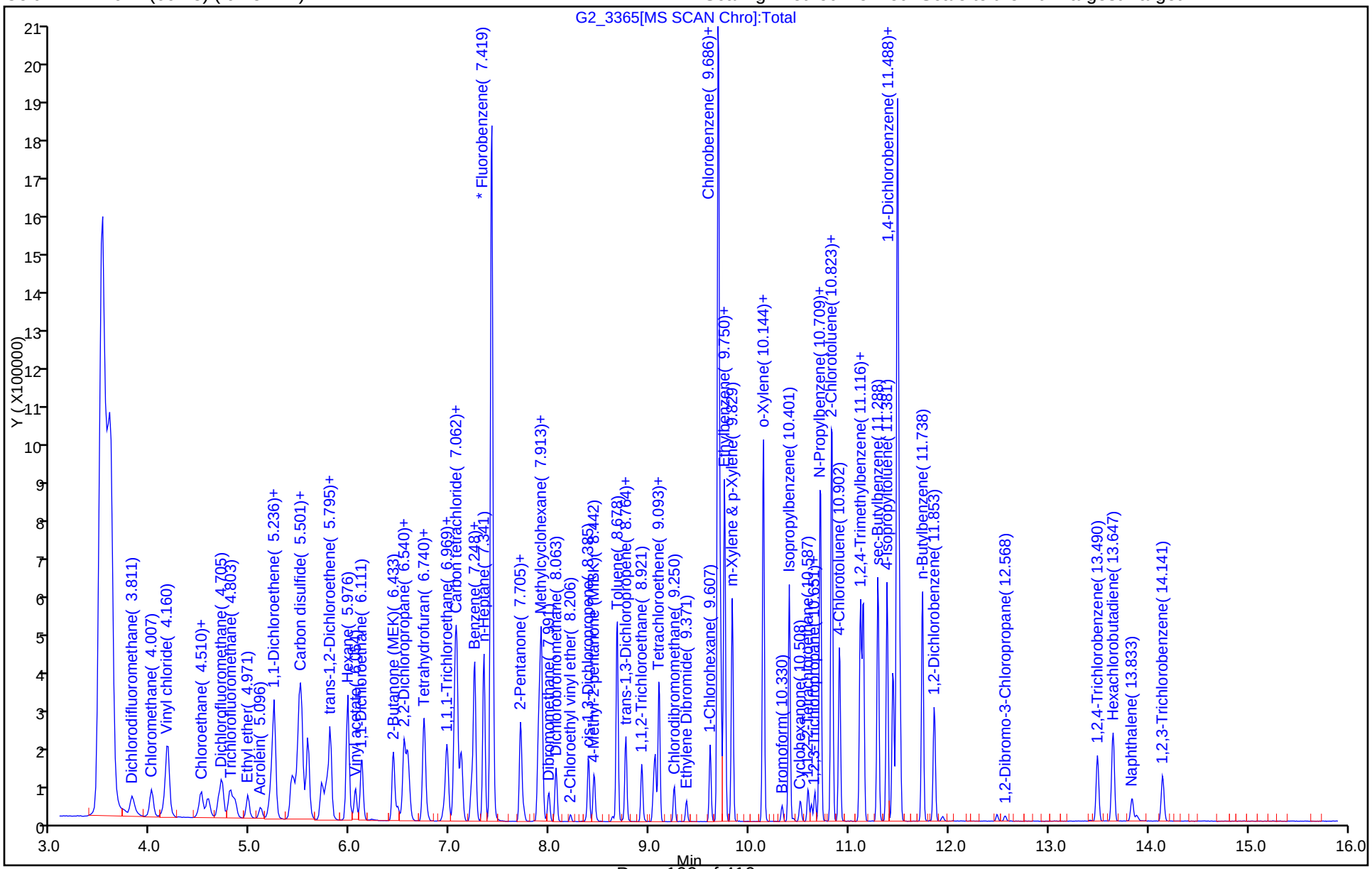
Report Date: 13-Apr-2016 05:42:05 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D

Injection Date:	12-Apr-2016 10:52:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

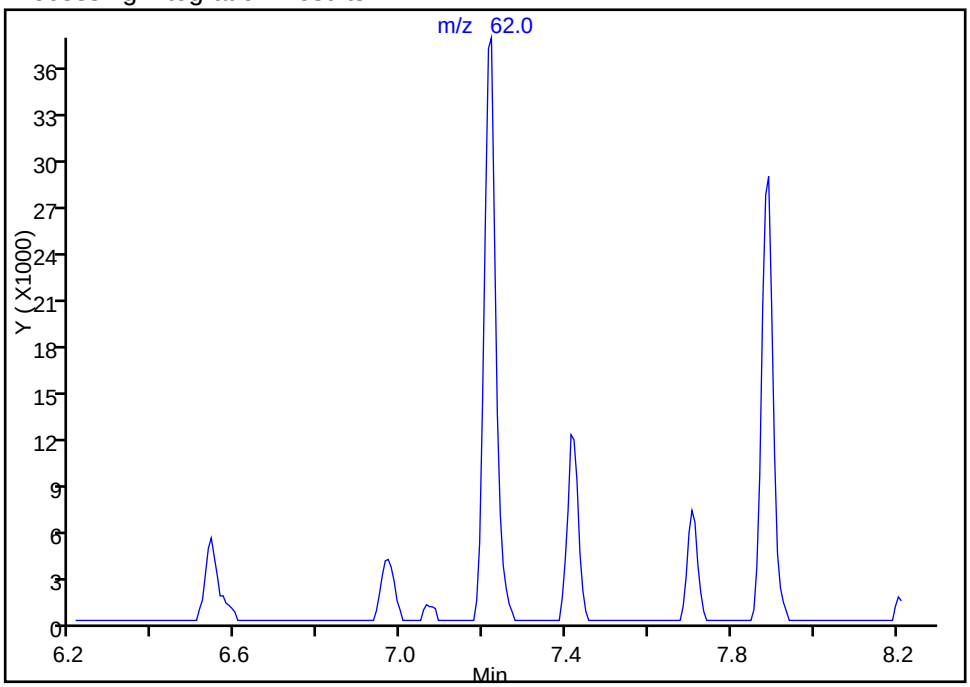
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3365.D
Injection Date: 12-Apr-2016 10:52:30 Instrument ID: VMS_G2
Lims ID: ic
Client ID:
Operator ID: ilczyszynd ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

64 1,2-Dichloroethane, CAS: 107-06-2

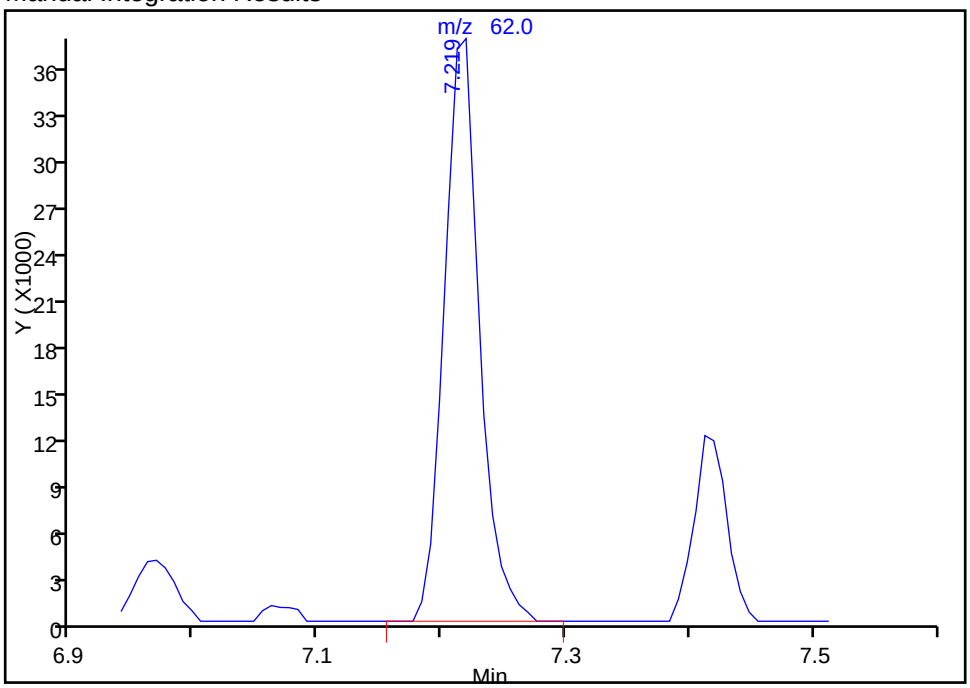
Not Detected
Expected RT: 7.21

Processing Integration Results



Manual Integration Results

RT: 7.22
Area: 75371
Amount: 2.239638
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:06:50
Audit Action: Assigned Compound ID
Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3366.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2016 11:12:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:06 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:07:27

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	5.473	5.473	0.000	0	192265	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1729964	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	354809	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	520568	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	292902	5.00	5.11	
14 Chloromethane	50	4.021	4.007	0.014	99	316002	5.00	4.92	
16 Vinyl chloride	62	4.160	4.160	0.000	98	315852	5.00	4.99	
19 Bromomethane	94	4.510	4.510	0.000	90	203594	5.00	4.65	
20 Chloroethane	64	4.579	4.579	0.000	100	209835	5.00	5.03	
21 Dichlorofluoromethane	67	4.719	4.705	0.014	97	524785	5.00	4.91	
22 Trichlorofluoromethane	101	4.803	4.789	0.014	98	404132	5.00	4.89	
25 Ethyl ether	59	4.970	4.971	-0.001	91	106863	5.00	4.76	
28 Acrolein	56	5.110	5.096	0.014	100	94114	50.0	46.9	
29 Acetone	43	5.194	5.194	0.000	99	82414	20.0	21.4	
31 1,1,2-Trichloro-1,2,2-trif	151	5.236	5.222	0.014	96	201282	5.00	4.92	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	245910	5.00	4.94	
34 Iodomethane	142	5.417	5.403	0.014	98	338492	5.00	4.85	
35 Methyl acetate	43	5.431	5.431	0.000	98	276316	25.0	25.2	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	82	455397	5.00	5.08	
37 Carbon disulfide	76	5.515	5.501	0.014	99	1155698	5.00	5.04	
38 2-Methyl-2-propanol	59	5.543	5.529	0.014	92	57258	50.0	47.1	
39 Methylene Chloride	84	5.571	5.571	0.000	95	244604	5.00	4.96	
40 Acrylonitrile	53	5.711	5.711	0.000	100	258338	50.0	48.4	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	302602	5.00	4.73	
42 trans-1,2-Dichloroethene	96	5.808	5.795	0.013	97	263681	5.00	4.94	
43 Hexane	57	5.976	5.976	0.000	93	480397	5.00	5.03	
44 Vinyl acetate	43	6.054	6.054	0.000	97	343363	10.0	9.42	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	460165	5.00	4.98	
50 2-Butanone (MEK)	43	6.483	6.476	0.007	100	125844	20.0	18.6	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	96	59228	75.0	69.1	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	233808	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	92	361182	5.00	4.94	
56 Chlorobromomethane	128	6.733	6.733	0.000	96	75102	5.00	4.86	
57 Chloroform	83	6.747	6.747	0.000	94	386230	5.00	4.98	
58 Tetrahydrofuran	42	6.769	6.769	0.000	87	32618	10.0	9.14	
59 Isobutyl alcohol	41	6.940	6.933	0.007	92	48319	125.0	120.4	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	379081	5.00	4.94	
61 Cyclohexane	56	7.055	7.048	0.007	92	521238	5.00	5.17	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	94	373573	5.00	5.03	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	331812	5.00	4.98	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	187787	5.00	4.90	
66 Benzene	78	7.248	7.248	0.000	97	972649	5.00	5.01	
67 n-Heptane	43	7.341	7.341	0.000	93	472030	5.00	5.15	
69 Trichloroethene	95	7.705	7.705	0.000	98	236461	5.00	4.87	
70 2-Pentanone	43	7.734	7.734	0.000	99	150214	10.0	14.1	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	94	207499	5.00	4.87	
73 Methylcyclohexane	55	7.913	7.913	0.000	95	431228	5.00	5.11	
74 1,4-Dioxane	88	7.941	7.941	0.000	94	11812	100.0	98.8	
75 Dibromomethane	93	7.991	7.991	0.000	95	70472	5.00	4.80	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	226869	5.00	4.90	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	93	19967	5.00	4.80	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	239783	5.00	4.82	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	234548	20.0	18.9	
81 Toluene	91	8.678	8.671	0.007	98	964184	5.00	5.13	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	91	94833	5.00	4.39	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	185283	5.00	4.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	93	96902	5.00	4.77	
85 2-Hexanone	43	9.043	9.035	0.007	96	141601	20.0	17.9	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	94	183453	5.00	4.88	
87 Tetrachloroethene	164	9.093	9.093	0.000	96	201167	5.00	4.85	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	109486	5.00	4.73	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	80077	5.00	4.61	
91 1-Chlorohexane	91	9.607	9.607	0.000	91	148826	2.50	2.28	
92 Chlorobenzene	112	9.715	9.715	0.000	95	565338	5.00	4.82	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	95	170991	5.00	4.83	
94 Ethylbenzene	106	9.750	9.750	0.000	99	357079	5.00	4.94	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	427728	5.00	4.97	
96 Styrene	104	10.144	10.137	0.007	85	571753	5.00	5.06	
97 o-Xylene	106	10.144	10.144	0.000	88	403263	5.00	5.06	
98 Bromoform	173	10.330	10.330	0.000	95	46746	5.00	4.63	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	1097117	5.00	5.32	
101 Cyclohexanone	55	10.508	10.508	0.000	94	62613	200.0	166.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	95	98084	5.00	4.79	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	85	26049	5.00	4.75	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	87	25141	5.00	4.72	
105 Bromobenzene	156	10.709	10.709	-0.001	97	198298	5.00	4.89	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	313486	5.00	5.15	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	900973	5.00	5.25	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	249662	5.00	5.10	
109 4-Chlorotoluene	126	10.909	10.902	0.007	98	237070	5.00	5.02	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	894809	5.00	5.19	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	904356	5.00	5.19	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	249532	5.00	5.12	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	1046474	5.00	5.31	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	97	437908	5.00	4.95	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	427289	5.00	4.96	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	1045164	5.00	5.36	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	96	339934	5.00	4.91	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	75	10427	5.00	4.25	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	93	203156	5.00	4.79	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	186155	5.00	5.12	
123 Naphthalene	128	13.840	13.840	0.000	97	203017	5.00	4.29	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	155996	5.00	4.85	
S 149 1,2-Dichloroethene, Total	96				0		10.0	9.87	
S 150 Trihalomethanes, Total	1				0		20.0	19.2	
S 151 Xylenes, Total (URS)	1				0		10.0	10.0	
S 152 Total BTEX	1				0			25.1	
S 153 1,3-Dichloropropene, Total	1				0		10.0	9.60	
S 154 1,2-Dichloroethene, Total	1				0		10.0	9.87	
S 155 Xylenes, Total	106				0		10.0	10.0	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	
MV-2cleve+AVA_00015	Amount Added:	2.50	Units: uL	
MV-Main A_00026	Amount Added:	2.50	Units: uL	
MV-Gas/Ket A_00044	Amount Added:	2.50	Units: uL	

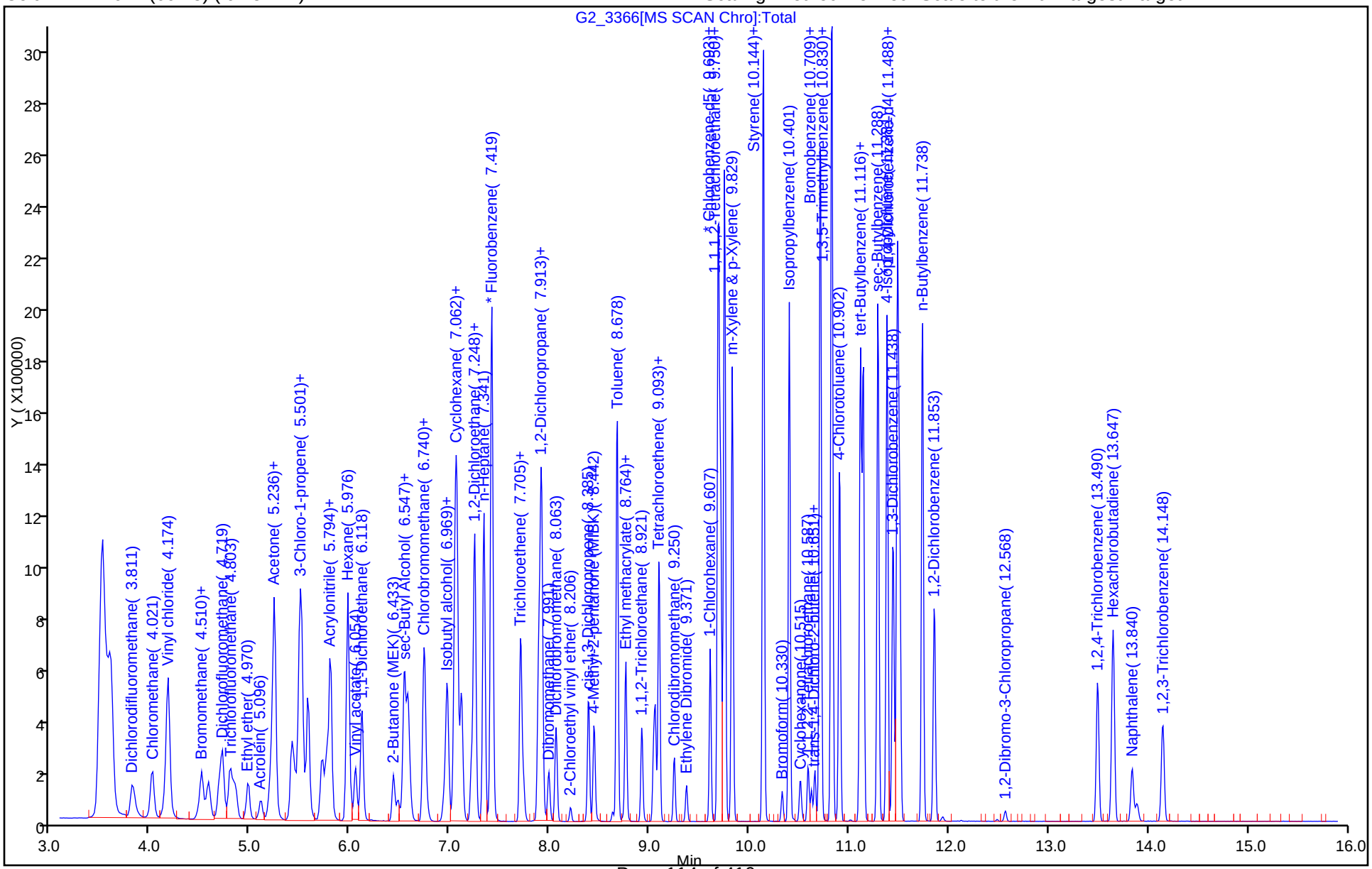
Report Date: 13-Apr-2016 05:42:07 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3366.D

Injection Date:	12-Apr-2016 11:12:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3367.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-Apr-2016 11:31:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:08 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 11:55:38

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	5.473	5.473	0.000	0	172129	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1561451	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	317224	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	479689	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	605199	10.0	11.7	
14 Chloromethane	50	4.007	4.007	0.000	99	664427	10.0	11.5	
16 Vinyl chloride	62	4.160	4.160	0.000	98	650962	10.0	11.4	
19 Bromomethane	94	4.510	4.510	0.000	90	408083	10.0	12.8	
20 Chloroethane	64	4.579	4.579	0.000	100	398472	10.0	12.6	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	98	1074185	10.0	11.1	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	100	825006	10.0	11.1	
25 Ethyl ether	59	4.971	4.971	0.000	93	231425	10.0	11.4	
28 Acrolein	56	5.096	5.096	0.000	99	197986	100.0	109.3	
29 Acetone	43	5.194	5.194	0.000	100	157489	40.0	48.5	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	414930	10.0	11.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	512124	10.0	11.4	
34 Iodomethane	142	5.403	5.403	0.000	98	712550	10.0	11.3	
35 Methyl acetate	43	5.431	5.431	0.000	98	552935	50.0	55.9	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	83	939242	10.0	11.6	
37 Carbon disulfide	76	5.501	5.501	0.000	99	2333901	10.0	11.3	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	123623	100.0	112.6	
39 Methylene Chloride	84	5.571	5.571	0.000	95	465407	10.0	11.3	
40 Acrylonitrile	53	5.711	5.711	0.000	99	533423	100.0	110.7	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	658326	10.0	11.4	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	96	542412	10.0	11.3	
43 Hexane	57	5.976	5.976	0.000	93	1014930	10.0	11.9	
44 Vinyl acetate	43	6.054	6.054	0.000	97	748297	20.0	22.8	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	933320	10.0	11.2	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	260350	40.0	42.7	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	95	132274	150.0	163.1	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	488466	10.0	11.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	742293	10.0	11.2	
56 Chlorobromomethane	128	6.733	6.733	0.000	92	150973	10.0	10.8	
57 Chloroform	83	6.747	6.747	0.000	94	777362	10.0	11.1	
58 Tetrahydrofuran	42	6.769	6.769	0.000	86	70331	20.0	21.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	92	96678	250.0	267.0	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	777071	10.0	11.2	
61 Cyclohexane	56	7.048	7.048	0.000	93	1106774	10.0	12.2	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	96	778349	10.0	11.6	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	676026	10.0	11.2	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	384766	10.0	11.1	
66 Benzene	78	7.248	7.248	0.000	96	2027986	10.0	11.6	
67 n-Heptane	43	7.341	7.341	0.000	93	1003461	10.0	12.1	
69 Trichloroethene	95	7.705	7.705	0.000	98	492675	10.0	11.2	
70 2-Pentanone	43	7.734	7.734	0.000	98	215029	20.0	24.0	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	95	430595	10.0	11.2	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	895384	10.0	11.8	
74 1,4-Dioxane	88	7.941	7.941	0.000	96	24650	200.0	219.8	
75 Dibromomethane	93	7.991	7.991	0.000	96	143286	10.0	10.8	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	467964	10.0	11.2	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	94	47013	10.0	9.26	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	94	531580	10.0	12.0	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	98	535596	40.0	47.9	
81 Toluene	91	8.671	8.671	0.000	98	2040969	10.0	12.0	
82 Ethyl methacrylate	69	8.757	8.757	0.000	93	221292	10.0	10.7	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	404867	10.0	11.6	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	199143	10.0	10.9	
85 2-Hexanone	43	9.035	9.035	0.000	96	338734	40.0	47.9	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	386333	10.0	11.5	
87 Tetrachloroethene	164	9.093	9.093	0.000	97	415552	10.0	11.2	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	234723	10.0	11.4	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	171767	10.0	11.1	
91 1-Chlorohexane	91	9.607	9.607	0.000	93	347387	5.00	5.54	
92 Chlorobenzene	112	9.715	9.715	0.000	93	1163679	10.0	11.1	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	95	357568	10.0	11.3	
94 Ethylbenzene	106	9.750	9.750	0.000	99	755587	10.0	11.7	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	908437	10.0	11.8	
96 Styrene	104	10.137	10.137	0.000	86	1242905	10.0	12.3	
97 o-Xylene	106	10.144	10.144	0.000	88	856177	10.0	12.0	
98 Bromoform	173	10.330	10.330	0.000	95	99771	10.0	11.1	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2363043	10.0	12.4	
101 Cyclohexanone	55	10.508	10.508	0.000	95	157204	400.0	438.7	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	205898	10.0	10.9	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	57395	10.0	11.4	
104 1,2,3-Trichloropropane	110	10.659	10.659	0.000	86	52363	10.0	10.7	
105 Bromobenzene	156	10.709	10.709	0.000	96	416701	10.0	11.2	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	670803	10.0	12.0	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1916337	10.0	12.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	514973	10.0	11.4	
109 4-Chlorotoluene	126	10.902	10.902	0.000	99	499791	10.0	11.5	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	1933242	10.0	12.2	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	1895236	10.0	11.8	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	535994	10.0	11.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	2205137	10.0	12.2	
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	901012	10.0	11.1	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	868315	10.0	10.9	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	2180102	10.0	12.1	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	97	712672	10.0	11.2	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	78	25971	10.0	11.5	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	481956	10.0	12.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	381365	10.0	11.4	
123 Naphthalene	128	13.840	13.840	0.000	97	520870	10.0	11.0	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	344490	10.0	11.6	
S 149 1,2-Dichloroethene, Total	96				0		20.0	22.7	
S 150 Trihalomethanes, Total	1				0		40.0	44.7	
S 151 Xylenes, Total (URS)	1				0		20.0	23.8	
S 153 1,3-Dichloropropene, Total	1				0		20.0	23.5	
S 154 1,2-Dichloroethene, Total	1				0		20.0	22.7	
S 155 Xylenes, Total	106				0		20.0	23.8	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	5.00	Units: uL
MV-Main A_00026	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	5.00	Units: uL

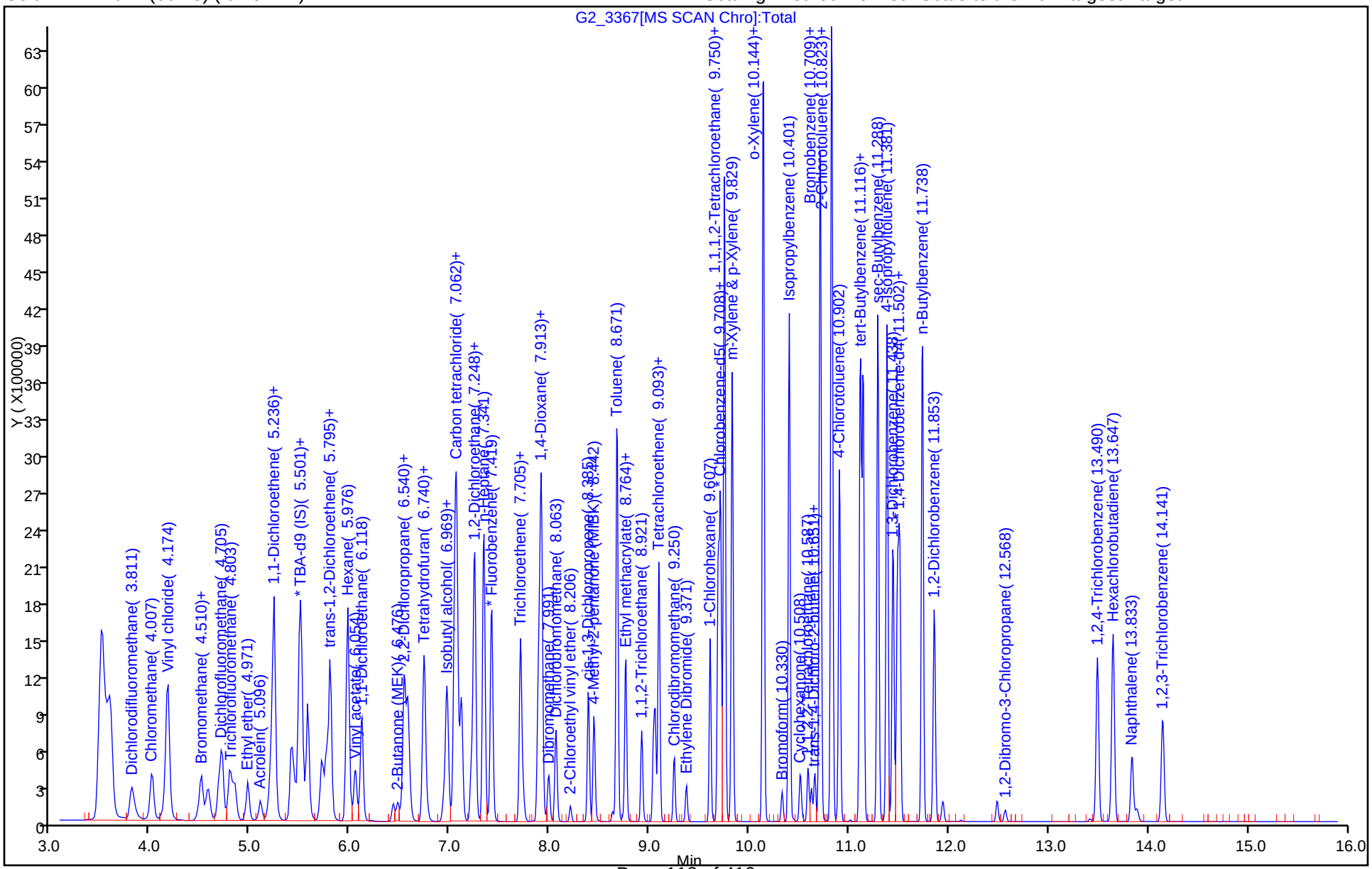
Report Date: 13-Apr-2016 05:42:08 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3367.D

Injection Date:	12-Apr-2016 11:31:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	14
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3368.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2016 11:50:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:09 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:12:43

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	5.473	5.473	0.000	0	229678	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2025271	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	415533	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	637745	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	1779575	30.0	26.5	
14 Chloromethane	50	4.021	4.007	0.014	99	1928629	30.0	25.6	
16 Vinyl chloride	62	4.174	4.160	0.014	98	1907373	30.0	25.7	
19 Bromomethane	94	4.510	4.510	0.000	90	1190473	30.0	31.4	
20 Chloroethane	64	4.579	4.579	0.000	100	1150465	30.0	30.4	
21 Dichlorofluoromethane	67	4.719	4.705	0.014	97	3244723	30.0	26.0	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	2500540	30.0	25.8	
25 Ethyl ether	59	4.970	4.971	-0.001	93	759091	30.0	28.9	
28 Acrolein	56	5.096	5.096	0.000	99	664687	300.0	283.0	
29 Acetone	43	5.194	5.194	0.000	100	464357	120.0	113.8	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	1252846	30.0	26.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	99	1623004	30.0	27.8	
34 Iodomethane	142	5.403	5.403	0.000	98	2276112	30.0	27.9	
35 Methyl acetate	43	5.431	5.431	0.000	98	1636782	150.0	127.6	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	2850325	30.0	27.1	
37 Carbon disulfide	76	5.515	5.501	0.014	99	6971609	30.0	26.0	
38 2-Methyl-2-propanol	59	5.543	5.529	0.014	92	390275	300.0	274.1	
39 Methylene Chloride	84	5.571	5.571	0.000	94	1393234	30.0	27.2	
40 Acrylonitrile	53	5.711	5.711	0.000	99	1695174	300.0	271.1	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	96	2168717	30.0	29.0	
42 trans-1,2-Dichloroethene	96	5.795	5.795	-0.001	97	1684814	30.0	27.0	
43 Hexane	57	5.976	5.976	0.000	92	3131114	30.0	28.0	
44 Vinyl acetate	43	6.054	6.054	0.000	97	2511357	60.0	58.9	
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	2833342	30.0	26.2	
50 2-Butanone (MEK)	43	6.483	6.476	0.007	100	803143	120.0	101.5	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	95	445080	450.0	414.7	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	1543418	30.0	27.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	2296519	30.0	26.8	
56 Chlorobromomethane	128	6.733	6.733	0.000	93	483297	30.0	26.7	
57 Chloroform	83	6.747	6.747	0.000	94	2391493	30.0	26.3	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	251132	60.0	60.1	
59 Isobutyl alcohol	41	6.940	6.933	0.007	94	325822	750.0	693.7	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	2386391	30.0	26.6	
61 Cyclohexane	56	7.048	7.048	0.000	92	3365136	30.0	28.5	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	2370615	30.0	27.3	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	2093900	30.0	26.8	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	1187828	30.0	26.5	
66 Benzene	78	7.248	7.248	0.000	96	6237157	30.0	27.4	
67 n-Heptane	43	7.341	7.341	0.000	92	3078939	30.0	28.7	
69 Trichloroethene	95	7.705	7.705	0.000	98	1580874	30.0	27.8	
70 2-Pentanone	43	7.734	7.734	0.000	99	614114	60.0	56.1	
72 1,2-Dichloropropane	63	7.891	7.884	0.007	96	1345859	30.0	27.0	
73 Methylcyclohexane	55	7.913	7.913	0.000	96	2760645	30.0	28.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	94	76960	600.0	519.8	
75 Dibromomethane	93	7.991	7.991	0.000	97	452971	30.0	26.4	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	1488979	30.0	27.5	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	206246	30.0	26.5	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	1766404	30.0	30.3	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	97	1764505	120.0	121.7	
81 Toluene	91	8.678	8.671	0.007	98	6292940	30.0	28.6	
82 Ethyl methacrylate	69	8.757	8.757	-0.001	91	780160	30.0	27.9	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	1309323	30.0	28.8	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	91	635597	30.0	26.7	
85 2-Hexanone	43	9.035	9.035	0.000	95	1146559	120.0	123.7	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	94	1206892	30.0	27.4	
87 Tetrachloroethene	164	9.093	9.093	0.000	97	1306535	30.0	26.9	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	768438	30.0	28.4	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	564038	30.0	27.7	
91 1-Chlorohexane	91	9.607	9.607	0.000	97	1172655	15.0	13.9	
92 Chlorobenzene	112	9.715	9.715	0.000	93	3628786	30.0	26.4	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	96	1186530	30.0	28.6	
94 Ethylbenzene	106	9.750	9.750	0.000	98	2415766	30.0	28.5	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	2902670	30.0	28.8	
96 Styrene	104	10.136	10.137	-0.001	87	4039014	30.0	30.5	
97 o-Xylene	106	10.144	10.144	0.000	88	2728264	30.0	29.2	
98 Bromoform	173	10.330	10.330	0.000	97	342929	30.0	29.0	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	7418138	30.0	29.4	
101 Cyclohexanone	55	10.508	10.508	0.000	94	532452	1200.0	1108.8	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	663063	30.0	26.4	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	191021	30.0	28.4	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	170529	30.0	26.1	
105 Bromobenzene	156	10.709	10.709	0.000	97	1377601	30.0	27.7	
106 N-Propylbenzene	120	10.716	10.716	0.000	98	2175577	30.0	29.2	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	6123051	30.0	29.1	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	1692514	30.0	28.2	
109 4-Chlorotoluene	126	10.902	10.902	0.000	98	1645179	30.0	28.4	
110 tert-Butylbenzene	119	11.116	11.116	0.000	94	6259387	30.0	29.7	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	6073732	30.0	28.4	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	1772738	30.0	29.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	7066922	30.0	29.3	
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	98	2926851	30.0	27.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	96	2805461	30.0	26.6	
117 n-Butylbenzene	91	11.738	11.738	0.000	98	6937702	30.0	29.0	
118 1,2-Dichlorobenzene	146	11.853	11.853	0.000	97	2345880	30.0	27.7	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	79	86860	30.0	28.9	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	1607958	30.0	30.9	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	97	1270034	30.0	28.5	
123 Naphthalene	128	13.833	13.840	-0.007	97	1893854	30.0	29.0	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	1179694	30.0	29.9	
S 149 1,2-Dichloroethene, Total	96				0		60.0	54.8	
S 150 Trihalomethanes, Total	1				0		120.0	111.2	
S 151 Xylenes, Total (URS)	1				0		60.0	58.0	
S 152 Total BTEX	1				0			142.6	
S 153 1,3-Dichloropropene, Total	1				0		60.0	59.2	
S 154 1,2-Dichloroethene, Total	1				0		60.0	54.8	
S 155 Xylenes, Total	106				0		60.0	58.0	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	15.00	Units: uL
MV-Main A_00026	Amount Added:	15.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	15.00	Units: uL

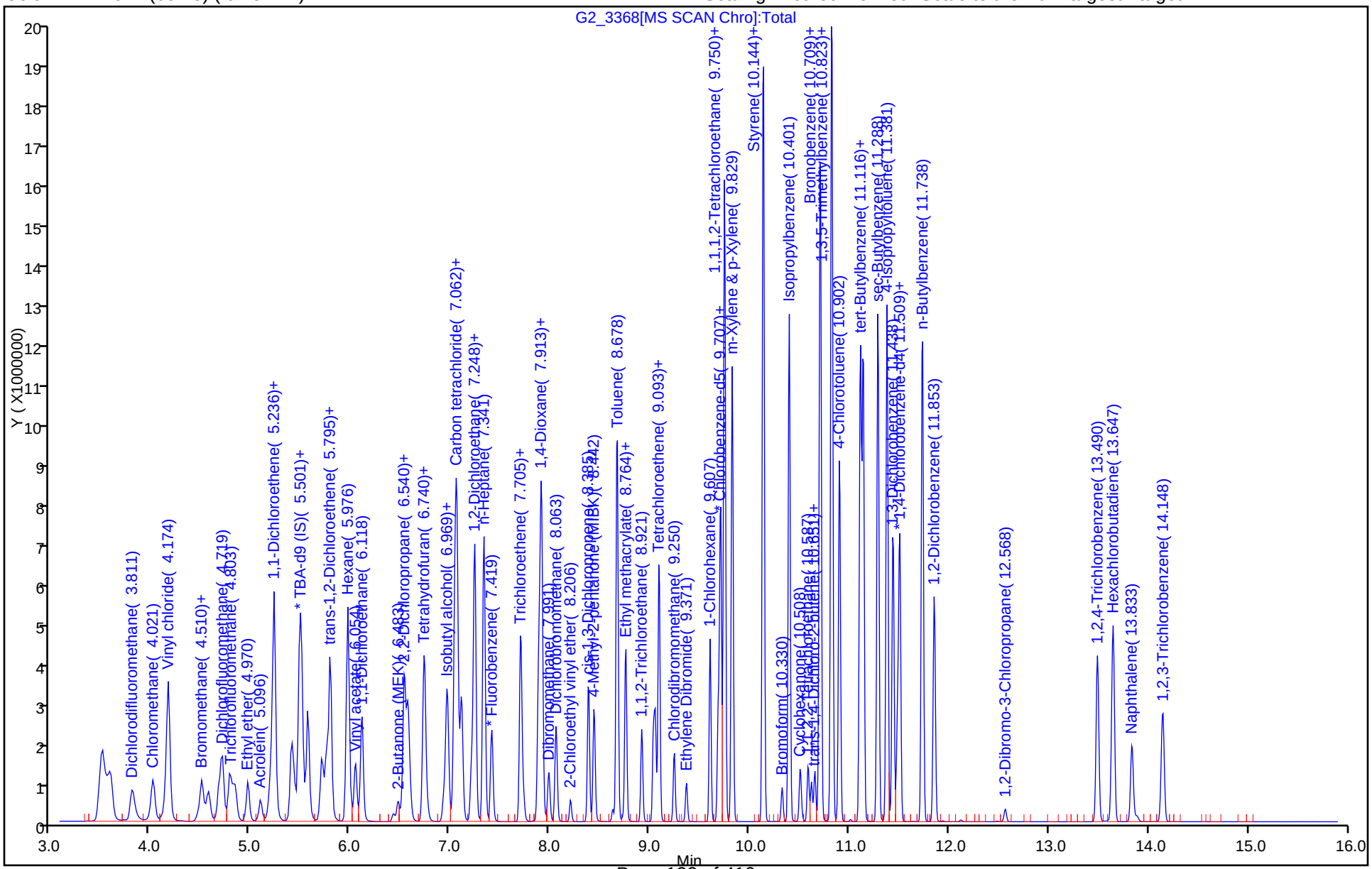
Report Date: 13-Apr-2016 05:42:09 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3368.D

Injection Date:	12-Apr-2016 11:50:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	15
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2016 12:10:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub88

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:10 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 12-Apr-2016 12:48:00

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	5.473	5.473	0.000	0	227320	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	2095404	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	422876	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	638278	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	100	3754063	60.0	54.0	
14 Chloromethane	50	4.021	4.007	0.014	99	3946169	60.0	50.7	
16 Vinyl chloride	62	4.160	4.160	0.000	99	3878062	60.0	50.5	
19 Bromomethane	94	4.510	4.510	0.000	90	2244069	60.0	58.9	
20 Chloroethane	64	4.579	4.579	0.000	100	2265276	60.0	59.4	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	98	6806506	60.0	51.4	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	100	5412577	60.0	54.1	
25 Ethyl ether	59	4.970	4.971	-0.001	92	1676633	60.0	61.6	
28 Acrolein	56	5.096	5.096	0.000	99	1462792	599.9	601.9	
29 Acetone	43	5.194	5.194	0.000	100	989399	240.0	237.3	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	2734741	60.0	55.2	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	99	3535584	60.0	58.6	
34 Iodomethane	142	5.403	5.403	0.000	98	4989443	60.0	59.0	
35 Methyl acetate	43	5.431	5.431	0.000	98	3470196	300.0	261.4	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	87	5881519	60.0	54.1	
37 Carbon disulfide	76	5.501	5.501	0.000	99	14451939	60.0	52.1	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	900597	600.0	611.2	
39 Methylene Chloride	84	5.571	5.571	0.000	93	2970882	60.0	56.9	
40 Acrylonitrile	53	5.711	5.711	0.000	100	3655586	600.0	565.1	
41 Methyl tert-butyl ether	73	5.767	5.767	-0.001	96	4780512	60.0	61.8	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	98	3698424	60.0	57.2	
43 Hexane	57	5.976	5.976	0.000	92	6739530	60.0	59.2	
44 Vinyl acetate	43	6.054	6.054	0.000	97	5416264	120.0	122.7	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	6033247	60.0	53.9	
50 2-Butanone (MEK)	43	6.476	6.476	0.000	100	1734210	240.0	211.8	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	94	1025184	900.0	916.6	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	82	3385643	60.0	58.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
54 2,2-Dichloropropane	77	6.576	6.576	0.000	88	4915682	60.0	55.5	
56 Chlorobromomethane	128	6.733	6.733	0.000	95	1075092	60.0	57.5	
57 Chloroform	83	6.747	6.747	0.000	94	5124646	60.0	54.5	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	563318	120.0	130.3	
59 Isobutyl alcohol	41	6.933	6.933	0.000	95	722239	1500.0	1486.1	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	99	5131334	60.0	55.2	
61 Cyclohexane	56	7.048	7.048	0.000	91	7057141	60.0	57.7	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	5080109	60.0	56.5	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	4528999	60.0	56.1	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	2578731	60.0	55.5	
66 Benzene	78	7.248	7.248	0.000	97	13121738	60.0	55.8	
67 n-Heptane	43	7.341	7.341	0.000	90	6458539	60.0	58.2	
69 Trichloroethene	95	7.705	7.705	0.000	99	3527157	60.0	60.0	
70 2-Pentanone	43	7.734	7.734	0.000	99	1337870	120.0	121.1	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	96	2857275	60.0	55.3	
73 Methylcyclohexane	55	7.913	7.913	0.000	93	5781181	60.0	56.6	
74 1,4-Dioxane	88	7.941	7.941	0.000	95	193813	1200.0	1255.7	
75 Dibromomethane	93	7.991	7.991	0.000	97	1014698	60.0	57.1	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	3304675	60.0	58.9	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	522519	60.0	61.8	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	3912514	60.0	66.0	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	96	3758178	240.0	250.6	
81 Toluene	91	8.678	8.671	0.007	98	12761641	60.0	56.0	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	91	1779494	60.0	62.0	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	2865504	60.0	61.0	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	91	1413044	60.0	57.4	
85 2-Hexanone	43	9.035	9.035	0.000	94	2470484	240.0	261.8	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	2616740	60.0	58.4	
87 Tetrachloroethene	164	9.093	9.093	-0.001	98	2927045	60.0	59.2	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	1751046	60.0	63.5	
90 Ethylene Dibromide	107	9.371	9.371	0.000	99	1272532	60.0	61.5	
91 1-Chlorohexane	91	9.607	9.607	0.000	98	2683081	30.0	30.9	
92 Chlorobenzene	112	9.715	9.715	0.000	93	7812338	60.0	55.9	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.743	0.007	96	2569689	60.0	60.8	
94 Ethylbenzene	106	9.750	9.750	0.000	98	5088473	60.0	59.1	e
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	98	6278339	60.0	61.3	a
96 Styrene	104	10.136	10.137	-0.001	86	8162971	60.0	60.7	
97 o-Xylene	106	10.144	10.144	0.000	87	5492779	60.0	57.8	
98 Bromoform	173	10.329	10.330	-0.001	96	808361	60.0	67.2	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	14197299	60.0	56.2	e
101 Cyclohexanone	55	10.508	10.508	0.000	93	1223578	2400.0	2483.6	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	1469722	60.0	58.6	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	92	427263	60.0	63.6	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	377941	60.0	57.9	
105 Bromobenzene	156	10.708	10.709	-0.001	95	2997359	60.0	60.3	
106 N-Propylbenzene	120	10.716	10.716	0.000	96	4668495	60.0	62.5	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	96	11978777	60.0	56.9	
108 2-Chlorotoluene	126	10.830	10.830	0.000	96	3505310	60.0	58.4	
109 4-Chlorotoluene	126	10.909	10.902	0.007	97	3648733	60.0	63.0	
110 tert-Butylbenzene	119	11.116	11.116	0.000	92	12932862	60.0	61.2	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	97	12267542	60.0	57.4	
112 sec-Butylbenzene	134	11.288	11.288	0.000	96	3872887	60.0	64.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
113 4-Isopropyltoluene	119	11.381	11.381	0.000	95	13799883	60.0	57.2	e
114 1,3-Dichlorobenzene	146	11.445	11.438	0.007	98	6283851	60.0	58.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	6035069	60.0	57.1	
117 n-Butylbenzene	91	11.738	11.738	0.000	96	13585221	60.0	56.8	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	97	5020008	60.0	59.1	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	82	200041	60.0	66.5	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	3292748	60.0	63.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	2629154	60.0	58.8	
123 Naphthalene	128	13.833	13.840	-0.007	97	4004235	60.0	60.7	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	2411625	60.0	61.1	
S 149 1,2-Dichloroethene, Total	96				0		120.0	116.2	
S 150 Trihalomethanes, Total	1				0		240.0	244.2	
S 151 Xylenes, Total (URS)	1				0		120.0	119.0	
S 152 Total BTEX	1				0			289.9	
S 153 1,3-Dichloropropene, Total	1				0		120.0	127.0	
S 154 1,2-Dichloroethene, Total	1				0		120.0	116.2	
S 155 Xylenes, Total	106				0		120.0	119.0	

QC Flag Legend

Processing Flags
e - Potential Peak Saturated
Review Flags
a - User Assigned ID

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	30.00	Units: uL
MV-Main A_00026	Amount Added:	30.00	Units: uL
MV-Gas/Ket A_00044	Amount Added:	30.00	Units: uL

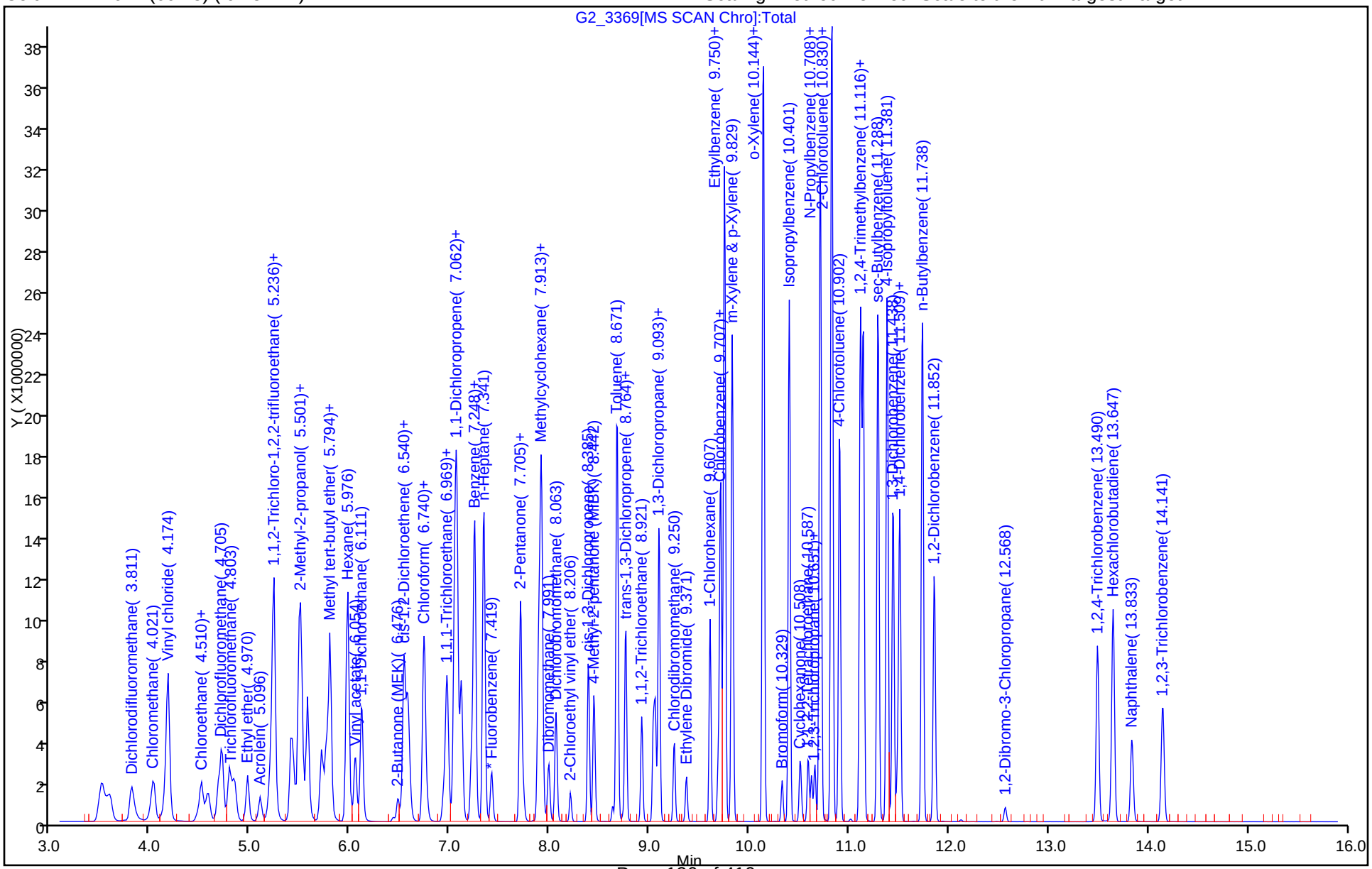
Report Date: 13-Apr-2016 05:42:10 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D

Injection Date:	12-Apr-2016 12:10:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	16
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

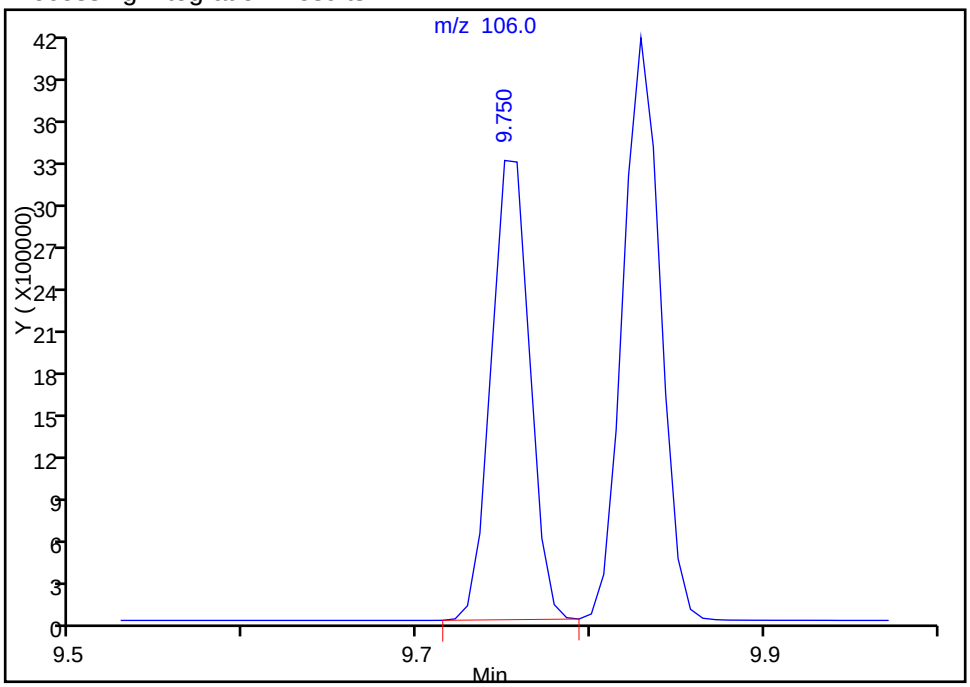
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3369.D				
Injection Date:	12-Apr-2016 12:10:30	Instrument ID:	VMS_G2		
Lims ID:	ic				
Client ID:					
Operator ID:	ilczyszynd	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		
Column:	DB-624 (60.25) (0.25 mm)	Detector	MS SCAN		

95 m-Xylene & p-Xylene, CAS: 179601-23-1

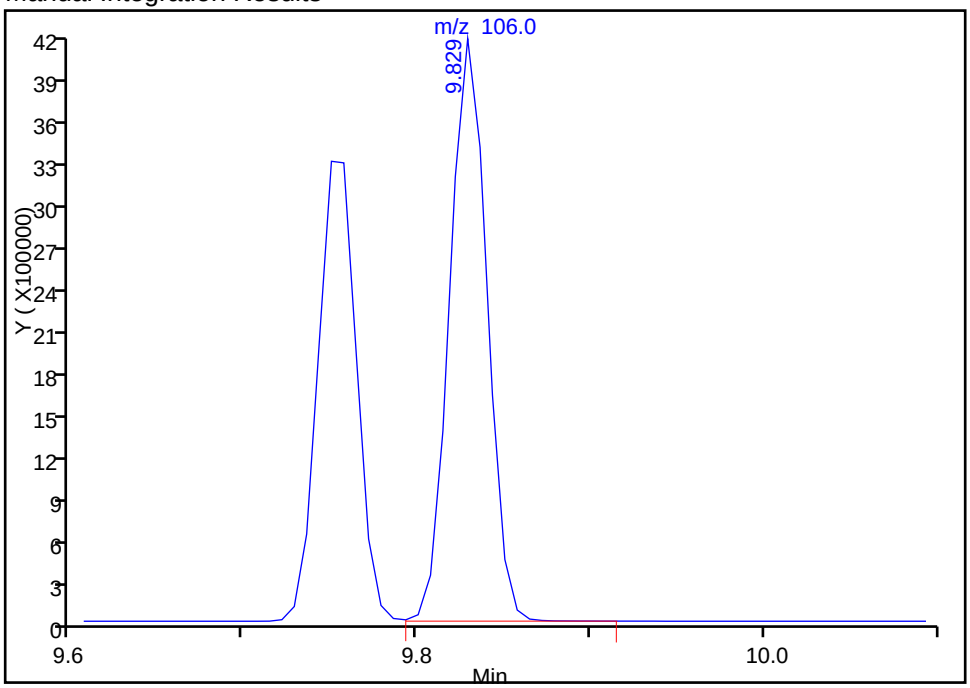
Processing Integration Results

RT: 9.75
Area: 5088473
Amount: 51.308214
Amount Units: ug/l



Manual Integration Results

RT: 9.83
Area: 6278339
Amount: 61.264156
Amount Units: ug/l



Reviewer: ilczyszynd, 12-Apr-2016 12:48:00
Audit Action: Assigned Compound ID
Audit Reason: Wrong peak

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/18	G2_3361.D
Level 2	IC 280-320302/19	G2_3373.D
Level 3	IC 280-320302/20	G2_3374.D
Level 4	ICIS 280-320302/21	G2_3375.D
Level 5	IC 280-320302/22	G2_3376.D
Level 6	IC 280-320302/23	G2_3377.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	+++++ 0.0009	0.0012	0.0010	0.0010	0.0009	Ave		0.0010				10.9		15.0			
Propene oxide	0.0266 +++++	0.0282	0.0265	0.0277	0.0221	Ave		0.0262				9.1		15.0			
Isopropyl alcohol	0.0068 0.0057	0.0063	0.0058	0.0061	0.0057	Ave		0.0061				7.4		15.0			
Acetonitrile	0.0131 0.0115	0.0132	0.0120	0.0130	0.0114	Ave		0.0124				6.6		15.0			
Isopropyl ether	0.1989 0.2272	0.2106	0.2097	0.2341	0.2182	Ave		0.2164				5.9		15.0			
Chloroprene	0.5988 0.6254	0.6151	0.6322	0.6900	0.6201	Ave		0.6303				5.0		15.0			
Ethyl tert-Butyl Ether (ETBE)	0.6092 0.6809	0.6480	0.6457	0.7241	0.6669	Ave		0.6625				5.8		15.0			
Ethyl acetate	0.0957 0.0917	0.0991	0.0914	0.0990	0.0892	Ave		0.0943				4.5		15.0			
Propionitrile	0.0129 0.0129	0.0134	0.0131	0.0139	0.0127	Ave		0.0131				3.4		15.0			
Methacrylonitrile	0.0611 0.0611	0.0648	0.0640	0.0698	0.0619	Ave		0.0638				5.2		15.0			
Tert-amyl methyl ether	0.4107 0.5096	0.4471	0.4558	0.5147	0.4933	Ave		0.4719				8.7		15.0			
Methyl methacrylate	0.0223 0.0319	0.0235	0.0253	0.0295	0.0298	Ave		0.0270				14.4		15.0			
2-Nitropropane	0.0206 0.0242	0.0210	0.0205	0.0240	0.0234	Ave		0.0223				7.9		15.0			
cis-1,4-Dichloro-2-butene	0.1191 0.1617	0.1323	0.1361	0.1540	0.1506	Ave		0.1423				11.1		15.0			
Dibromofluoromethane (Surr)	0.2550 0.2594	0.2576	0.2594	0.2758	0.2493	Ave		0.2594				3.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

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								
1,2-Dichloroethane-d4 (Surr)	0.2133 0.2170	0.2247	0.2209	0.2368	0.2116	Ave		0.2207				4.2		15.0			
Toluene-d8 (Surr)	5.4051 5.6175	5.4077	5.6824	6.2840	5.7273	Ave		5.6873				5.7		15.0			
4-Bromofluorobenzene (Surr)	1.1442 1.3669	1.1557	1.2607	1.3813	1.3038	Ave		1.2688				8.0		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-320302/18	G2_3361.D
Level 2	IC 280-320302/19	G2_3373.D
Level 3	IC 280-320302/20	G2_3374.D
Level 4	ICIS 280-320302/21	G2_3375.D
Level 5	IC 280-320302/22	G2_3376.D
Level 6	IC 280-320302/23	G2_3377.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	FB	Ave	+++++ 409867	17695	38343	68099	211632	+++++ 3000	100	250	500	1500
Propene oxide	FB	Ave	414474 +++++	840750	1938042	3677516	10139154	100 +++++	200	500	1000	3000
Isopropyl alcohol	FB	Ave	10625 512921	18786	42460	81749	259060	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Ave	25475 1294515	49170	109767	216290	655244	12.5 750	25.0	62.5	125	375
Isopropyl ether	FB	Ave	38707 2559247	78555	191741	389006	1248981	1.25 75.0	2.50	6.25	12.5	37.5
Chloroprene	FB	Ave	93235 5636416	183580	462396	917185	2839657	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl tert-Butyl Ether (ETBE)	FB	Ave	118576 7670600	241772	590286	1203197	3817221	1.25 75.0	2.50	6.25	12.5	37.5
Ethyl acetate	FB	Ave	29795 1652542	59151	133698	263095	816587	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	25018 1457189	49929	119539	231258	726077	12.5 750	25.0	62.5	125	375
Methacrylonitrile	FB	Ave	95172 5508477	193424	467888	927346	2834422	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	79935 5740925	166802	416690	855179	2823346	1.25 75.0	2.50	6.25	12.5	37.5
Methyl methacrylate	FB	Ave	6931 574893	14006	37053	78429	272646	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	6420 436832	12524	30058	63728	214201	2.00 120	4.00	10.0	20.0	60.0
cis-1,4-Dichloro-2-butene	DCB	Ave	9948 805383	21132	52839	111768	383836	2.00 120	4.00	10.0	20.0	60.0
Dibromofluoromethane (Surr)	FB	Ave	39713 2338163	76882	189747	366689	1141354	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	33207 1955867	67064	161541	314796	969139	1.00 60.0	2.00	5.00	10.0	30.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 320302

SDG No.:

Instrument ID: VMS_G2 GC Column: DB-624 (60. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/12/2016 12:48 Calibration End Date: 04/12/2016 14:49 Calibration ID: 25662

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
Toluene-d8 (Surr)	CBZ	Ave	168846 9979459	324675	836272	1679804	5201660	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	47784 3404686	92291	244669	501119	1661381	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:
Ave = Average ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3361.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-Apr-2016 12:48:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:11 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:34:47

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	5.473	5.473	0.000	0	207175	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1946442	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	390481	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	522024	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	92	39713	1.00	0.9830	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	33207	1.00	0.9662	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	168846	1.00	0.9504	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	47784	1.00	0.9018	
18 Ethylene oxide	43	4.454	4.454	0.000	100	38609	40.0	-21.6	
23 Ethanol	45		4.817				ND	ND	
27 Propene oxide	58	5.068	5.054	0.014	97	414474	100.0	106.6	
30 Isopropyl alcohol	45	5.222	5.208	0.014	88	10625	10.0	11.2	
33 Acetonitrile	41	5.417	5.417	0.000	100	25475	12.5	13.2	
45 Isopropyl ether	87	6.082	6.082	0.000	93	38707	1.25	1.15	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	93235	1.00	0.9500	
48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	97	118576	1.25	1.15	
49 Ethyl acetate	43	6.476	6.475	0.001	95	29795	2.00	2.03	
51 Propionitrile	54	6.533	6.526	0.007	98	25018	12.5	12.2	
55 Methacrylonitrile	41	6.661	6.654	0.007	92	95172	10.0	9.58	
65 Tert-amyl methyl ether	73	7.248	7.241	0.007	95	79935	1.25	1.09	
68 n-Butanol	56	7.427	7.434	-0.007	25	21043	25.0	25.3	
71 Methyl methacrylate	100	7.841	7.841	0.000	91	6931	2.00	1.65	
77 2-Nitropropane	41	8.192	8.192	0.000	93	6420	2.00	1.85	
89 Tetrahydrothiophene	60		9.293				ND	ND	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	35	9948	2.00	1.67	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	96	163450	1.00	0.9452	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	68685	1.00	0.9698	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.08	Units: uL
MV-Supp A_00018	Amount Added:	0.50	Units: uL

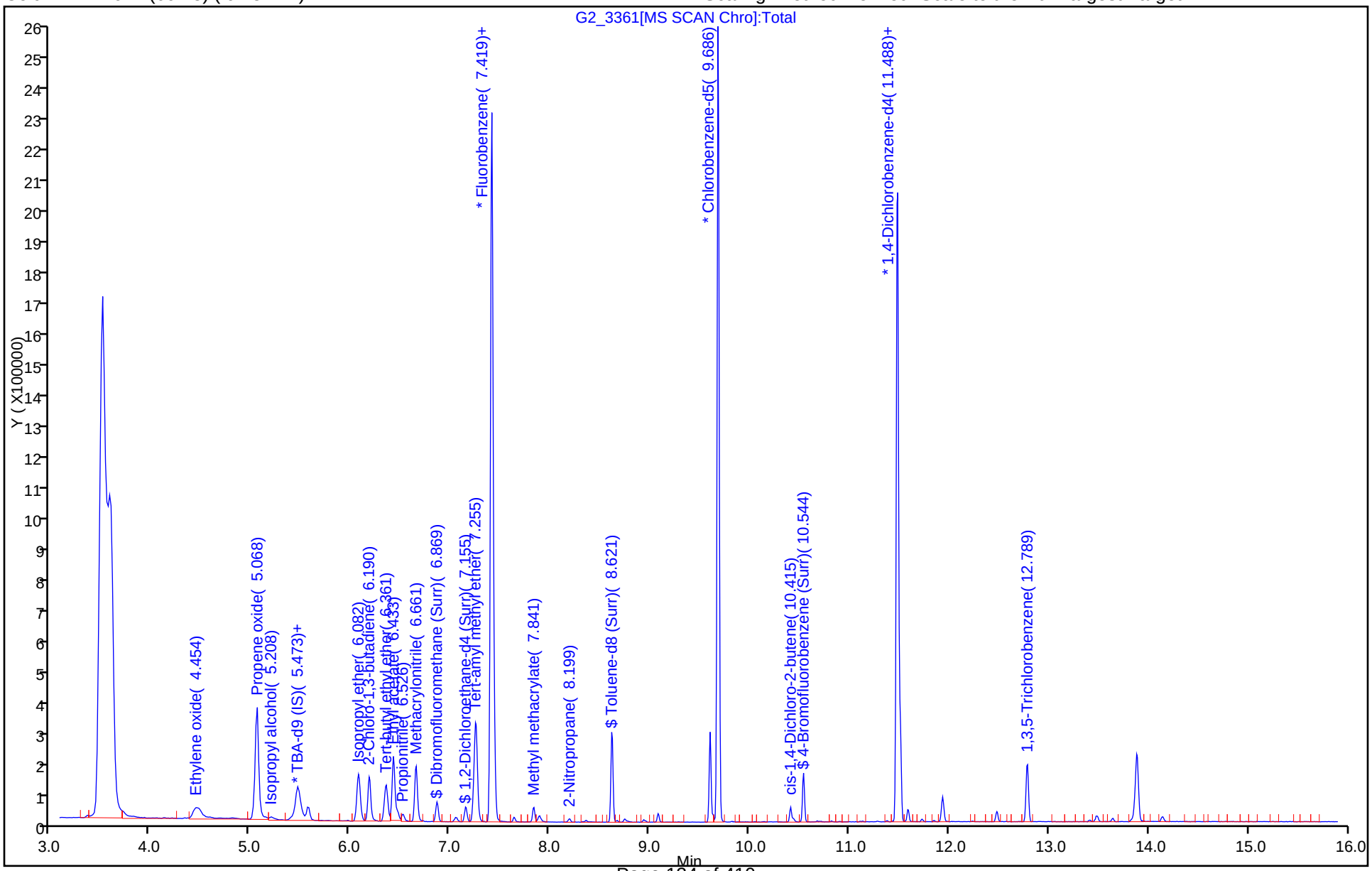
Report Date: 13-Apr-2016 05:42:12 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3361.D

Injection Date:	12-Apr-2016 12:48:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	18
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3373.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-Apr-2016 13:31:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:12 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:03

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	5.473	5.473	0.000	0	195402	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1865381	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	375247	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	499110	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	76882	2.00	1.99	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	98	67064	2.00	2.04	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	324675	2.00	1.90	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	92291	2.00	1.82	
18 Ethylene oxide	43	4.468	4.454	0.014	99	74357	80.0	39.4	
23 Ethanol	45	4.817	4.817	0.000	97	17695	100.0	116.4	
27 Propene oxide	58	5.054	5.054	0.000	97	840750	200.0	225.7	
30 Isopropyl alcohol	45	5.208	5.208	0.000	95	18786	20.0	20.7	
33 Acetonitrile	41	5.403	5.417	-0.014	99	49170	25.0	26.6	
45 Isopropyl ether	87	6.082	6.082	0.000	93	78555	2.50	2.43	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	183580	2.00	1.95	
48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	97	241772	2.50	2.45	
49 Ethyl acetate	43	6.475	6.475	0.000	99	59151	4.00	4.20	
51 Propionitrile	54	6.526	6.526	0.000	99	49929	25.0	25.5	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	193424	20.0	20.3	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	92	166802	2.50	2.37	
68 n-Butanol	56	7.434	7.434	0.000	26	31684	50.0	49.4	
71 Methyl methacrylate	100	7.841	7.841	0.000	92	14006	4.00	3.47	
77 2-Nitropropane	41	8.192	8.192	0.000	96	12524	4.00	3.77	
89 Tetrahydrothiophene	60	9.286	9.293	-0.007	79	1398	4.00	7.14	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	35	21132	4.00	3.72	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	318458	2.00	1.93	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	96	125366	2.00	1.85	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.16	Units: uL
MV-Supp A_00018	Amount Added:	1.00	Units: uL

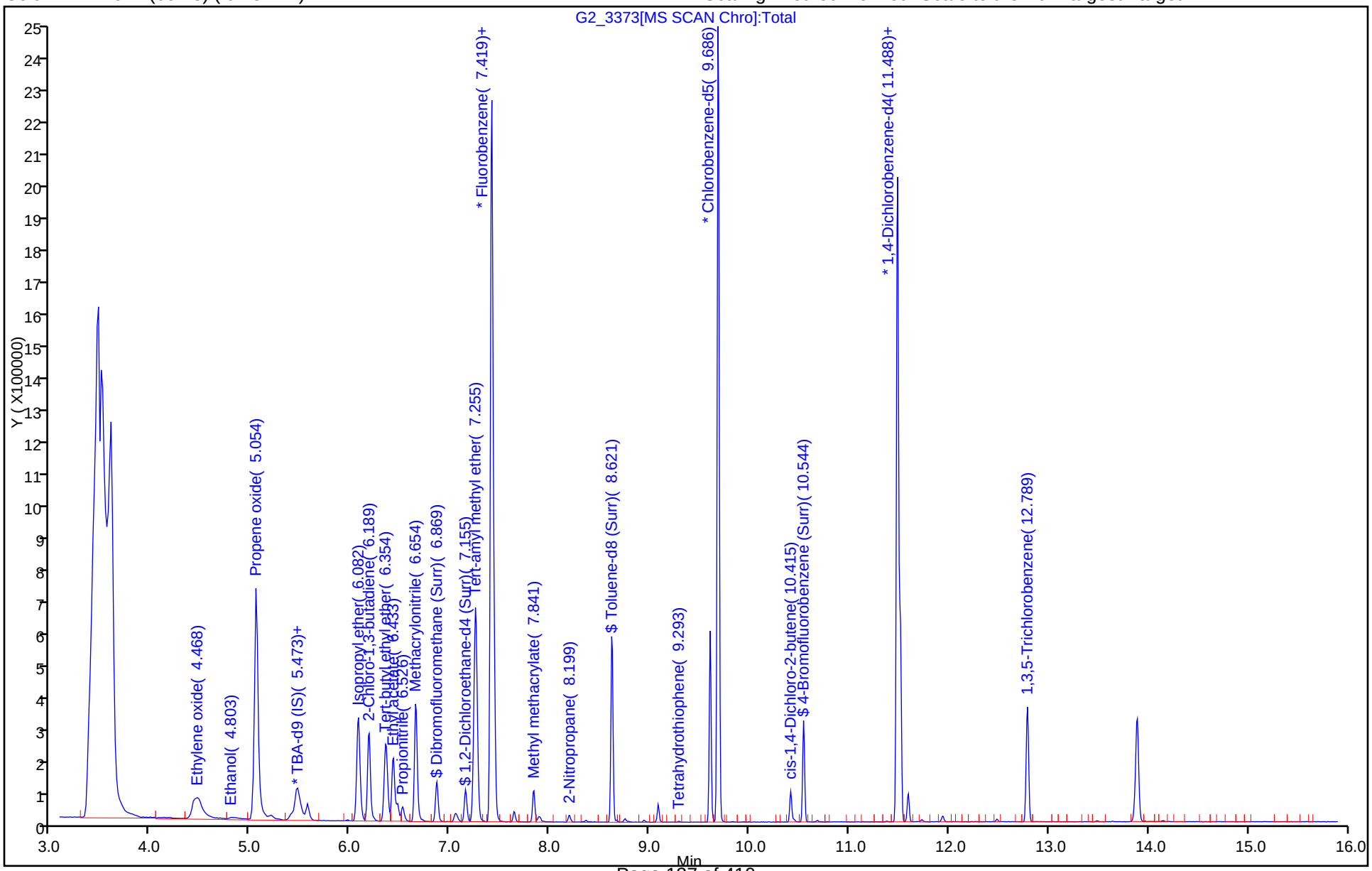
Report Date: 13-Apr-2016 05:42:13 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3373.D

Injection Date:	12-Apr-2016 13:31:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	19
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3374.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 12-Apr-2016 13:51:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:13 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:19

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	5.473	5.473	0.000	0	187474	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1828421	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	367919	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	95	485179	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	189747	5.00	5.00	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	161541	5.00	5.00	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	836272	5.00	5.00	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	244669	5.00	4.97	
18 Ethylene oxide	43	4.454	4.454	0.000	99	164888	200.0	192.7	
23 Ethanol	45	4.817	4.817	0.000	98	38343	250.0	257.4	
27 Propene oxide	58	5.054	5.054	0.000	96	1938042	500.0	530.7	
30 Isopropyl alcohol	45	5.208	5.208	0.000	97	42460	50.0	47.8	
33 Acetonitrile	41	5.403	5.417	-0.014	97	109767	62.5	60.7	
45 Isopropyl ether	87	6.082	6.082	0.000	94	191741	6.25	6.06	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	462396	5.00	5.02	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	590286	6.25	6.09	
49 Ethyl acetate	43	6.476	6.475	0.001	98	133698	10.0	9.69	
51 Propionitrile	54	6.526	6.526	0.000	99	119539	62.5	62.2	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	467888	50.0	50.2	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	96	416690	6.25	6.04	
68 n-Butanol	56	7.434	7.434	0.000	60	63963	125.0	119.7	
71 Methyl methacrylate	100	7.841	7.841	0.000	93	37053	10.0	9.37	
77 2-Nitropropane	41	8.199	8.192	0.007	96	30058	10.0	9.22	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	91	4653	10.0	10.9	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	90	52839	10.0	9.57	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	789790	5.00	4.91	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	299506	5.00	4.55	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.40	Units: uL
MV-Supp A_00018	Amount Added:	2.50	Units: uL

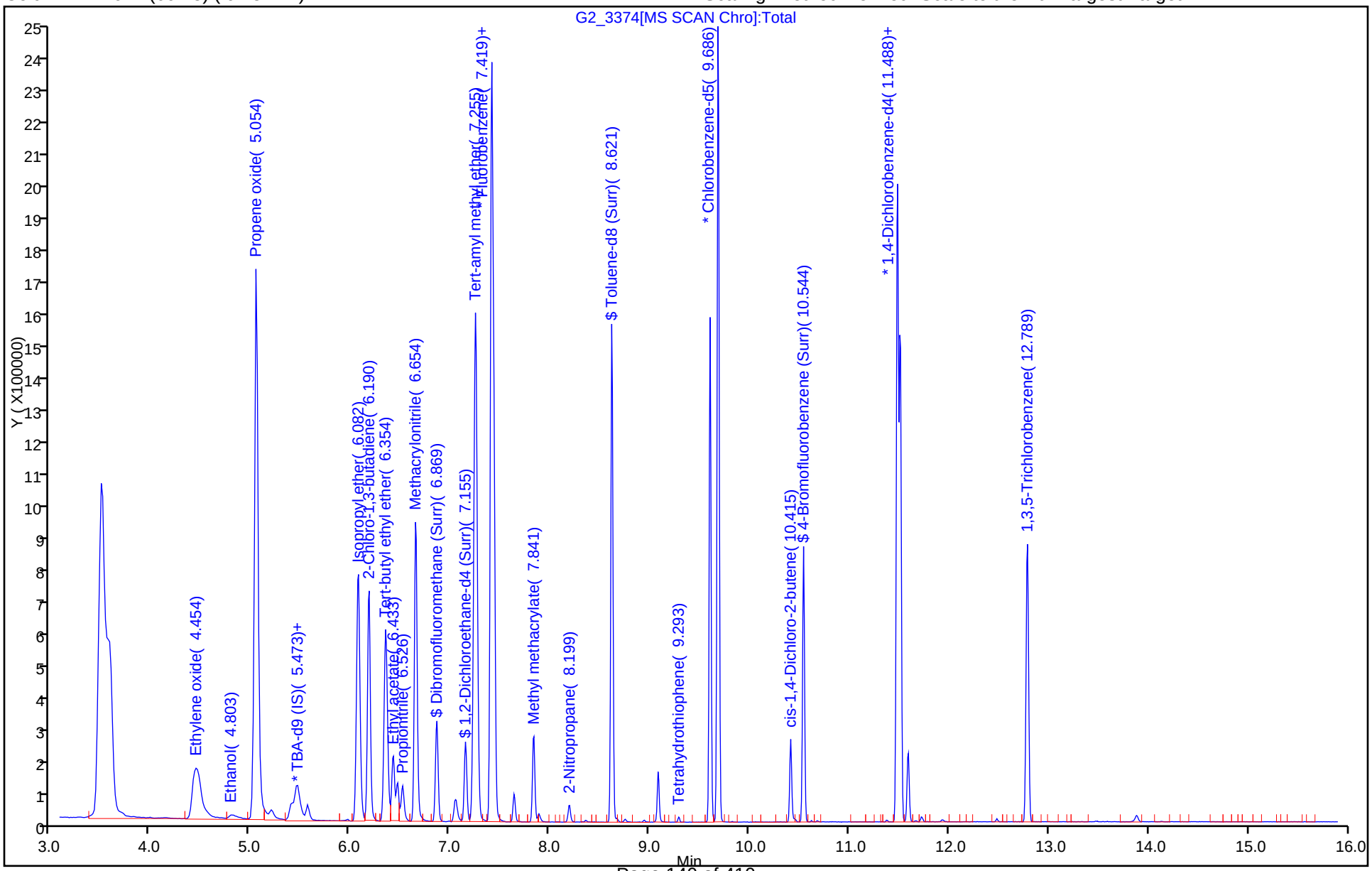
Report Date: 13-Apr-2016 05:42:13 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3374.D

Injection Date:	12-Apr-2016 13:51:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	20
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3375.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 12-Apr-2016 14:10:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:14 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:35

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	5.473	5.473	0.000	0	168192	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1661633	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	334145	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	453484	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	366689	10.0	10.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	314796	10.0	10.7	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1679804	10.0	11.0	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	501119	10.0	10.9	
18 Ethylene oxide	43	4.454	4.454	0.000	100	304809	400.0	476.8	
23 Ethanol	45	4.817	4.817	0.000	99	68099	500.0	503.0	
27 Propene oxide	58	5.054	5.054	0.000	96	3677516	1000.0	1108.2	
30 Isopropyl alcohol	45	5.208	5.208	0.000	98	81749	100.0	101.3	
33 Acetonitrile	41	5.417	5.417	0.000	99	216290	125.0	131.5	
45 Isopropyl ether	87	6.082	6.082	0.000	94	389006	12.5	13.5	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	917185	10.0	10.9	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	1203197	12.5	13.7	
49 Ethyl acetate	43	6.475	6.475	0.000	99	263095	20.0	21.0	
51 Propionitrile	54	6.526	6.526	0.000	99	231258	125.0	132.4	
55 Methacrylonitrile	41	6.654	6.654	0.000	93	927346	100.0	109.4	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	97	855179	12.5	13.6	
68 n-Butanol	56	7.434	7.434	0.000	77	118667	250.0	262.0	
71 Methyl methacrylate	100	7.841	7.841	0.000	93	78429	20.0	21.8	
77 2-Nitropropane	41	8.192	8.192	0.000	98	63728	20.0	21.5	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	92	10670	20.0	19.2	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	34	111768	20.0	21.6	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	1633970	10.0	10.9	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	654745	10.0	10.6	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL
MV-Supp A_00018	Amount Added:	5.00	Units: uL

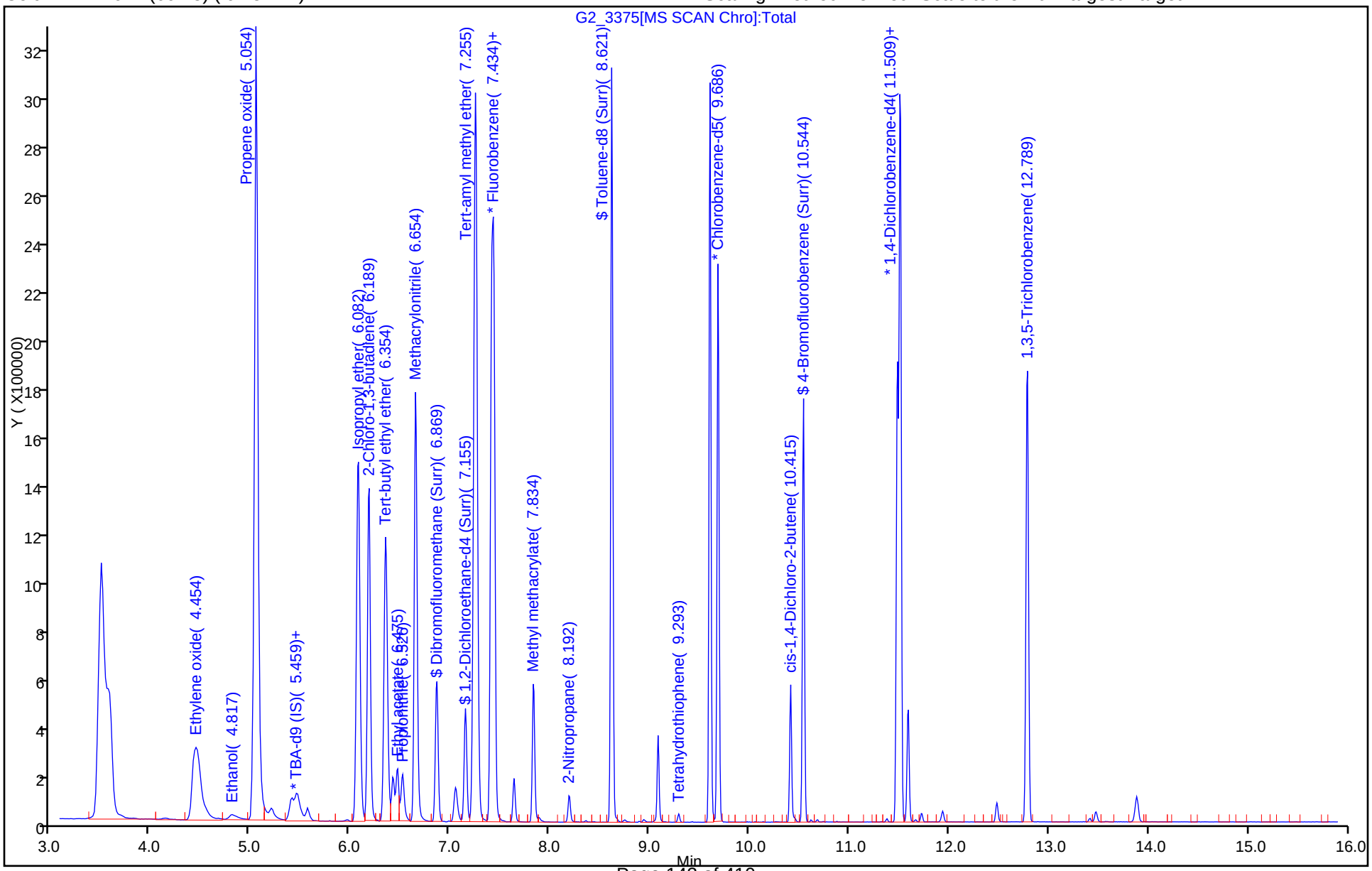
Report Date: 13-Apr-2016 05:42:14 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3375.D

Injection Date:	12-Apr-2016 14:10:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icis			Worklist Smp#:	21
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3376.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-Apr-2016 14:29:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:35:59

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	5.473	5.473	0.000	0	197080	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1907941	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	378429	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	530960	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	1141354	30.0	28.8	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	969139	30.0	28.8	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	5201660	30.0	30.2	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	1661381	30.0	30.8	
18 Ethylene oxide	43	4.454	4.454	0.000	100	856114	1200.0	1285.0	
23 Ethanol	45	4.817	4.817	0.000	99	211632	1500.0	1361.3	
27 Propene oxide	58	5.054	5.054	0.000	98	10139154	3000.0	2660.9	
30 Isopropyl alcohol	45	5.208	5.208	0.000	99	259060	300.0	279.6	
33 Acetonitrile	41	5.417	5.417	0.000	100	655244	375.0	347.0	
45 Isopropyl ether	87	6.082	6.082	0.000	94	1248981	37.5	37.8	
47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	2839657	30.0	29.5	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	3817221	37.5	37.8	
49 Ethyl acetate	43	6.476	6.475	0.001	99	816587	60.0	56.7	
51 Propionitrile	54	6.526	6.526	0.000	99	726077	375.0	362.0	
55 Methacrylonitrile	41	6.654	6.654	0.000	92	2834422	300.0	291.2	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	2823346	37.5	39.2	
68 n-Butanol	56	7.434	7.434	0.000	82	365899	750.0	732.2	
71 Methyl methacrylate	100	7.834	7.841	-0.007	93	272646	60.0	66.1	
77 2-Nitropropane	41	8.192	8.192	0.000	99	214201	60.0	63.0	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	94	42620	60.0	53.6	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	94	383836	60.0	63.5	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	5353410	30.0	30.4	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	2255342	30.0	31.3	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	2.40	Units: uL
MV-Supp A_00018	Amount Added:	15.00	Units: uL

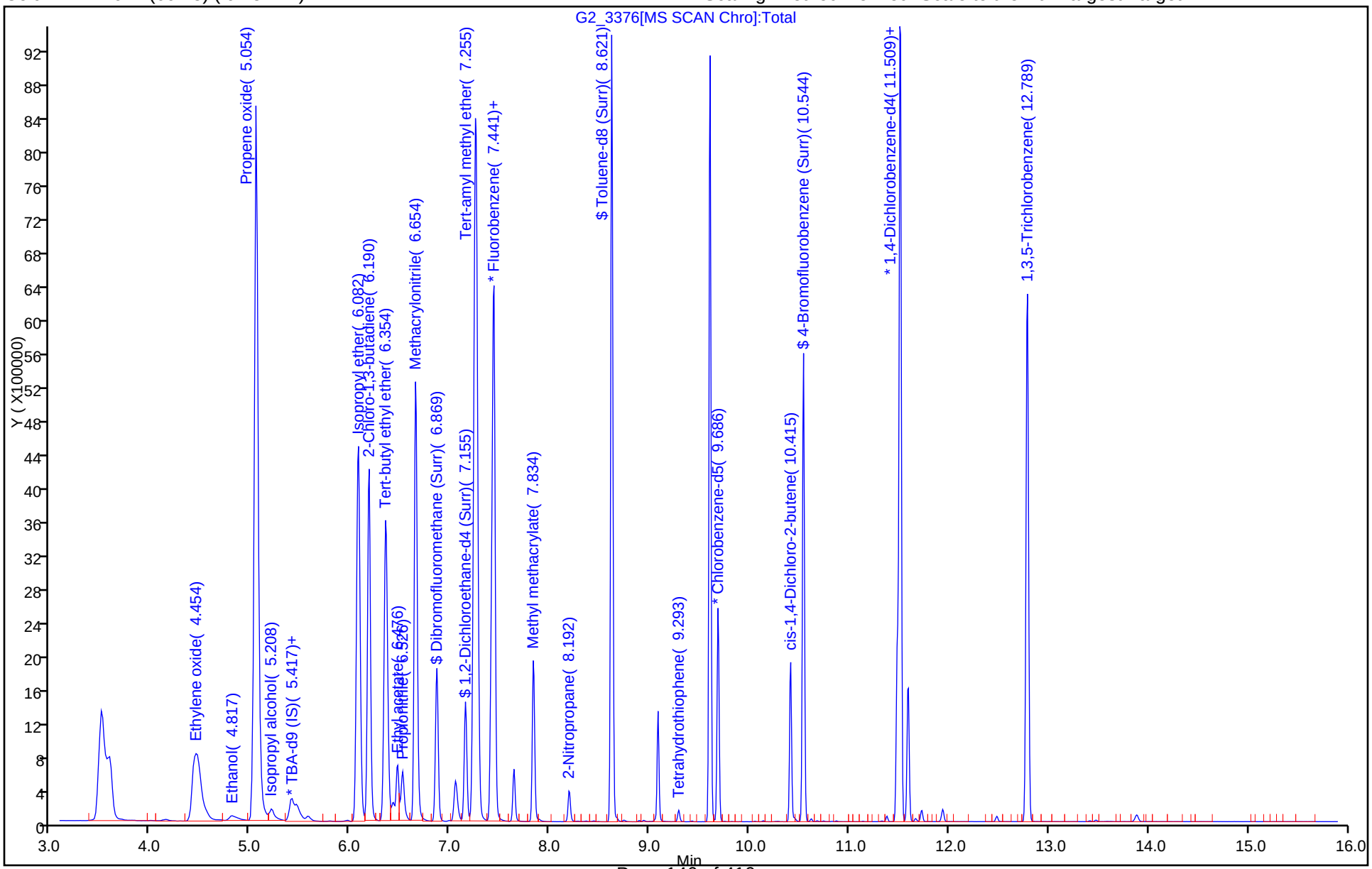
Report Date: 13-Apr-2016 05:42:15 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3376.D

Injection Date:	12-Apr-2016 14:29:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	22
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-Apr-2016 14:49:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: ilczyszynd Date: 13-Apr-2016 05:36:13

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	5.473	5.473	0.000	0	193602	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	99	1877520	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	370104	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	518912	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	94	2338163	60.0	60.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	1955867	60.0	59.0	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	93	9979459	60.0	59.3	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	89	3404686	60.0	64.6	
18 Ethylene oxide	43	4.454	4.454	0.000	100	1497298	2400.0	1750.7	
23 Ethanol	45	4.817	4.817	0.000	100	409867	3000.0	2679.1	
27 Propene oxide	58	5.054	5.054	0.000	97	16844057	6000.0	4277.2	
30 Isopropyl alcohol	45	5.208	5.208	0.000	100	512921	600.0	562.6	
33 Acetonitrile	41	5.403	5.417	-0.014	99	1294515	750.0	696.6	
45 Isopropyl ether	87	6.082	6.082	0.000	94	2559247	75.0	78.7	
47 2-Chloro-1,3-butadiene	53	6.189	6.189	0.000	92	5636416	60.0	59.5	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	7670600	75.0	77.1	
49 Ethyl acetate	43	6.468	6.475	-0.007	99	1652542	120.0	116.6	
51 Propionitrile	54	6.526	6.526	0.000	99	1457189	750.0	738.2	
55 Methacrylonitrile	41	6.654	6.654	0.000	91	5508477	600.0	575.0	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	5740925	75.0	81.0	
68 n-Butanol	56	7.434	7.434	0.000	48	743622	1500.0	1530.3	
71 Methyl methacrylate	100	7.834	7.841	-0.007	92	574893	120.0	141.6	
77 2-Nitropropane	41	8.192	8.192	0.000	99	436832	120.0	130.5	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	93	102086	120.0	123.2	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	93	805383	120.0	136.3	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	10383381	60.0	60.4	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	98	4590845	60.0	65.2	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	4.80	Units: uL
MV-Supp A_00018	Amount Added:	30.00	Units: uL

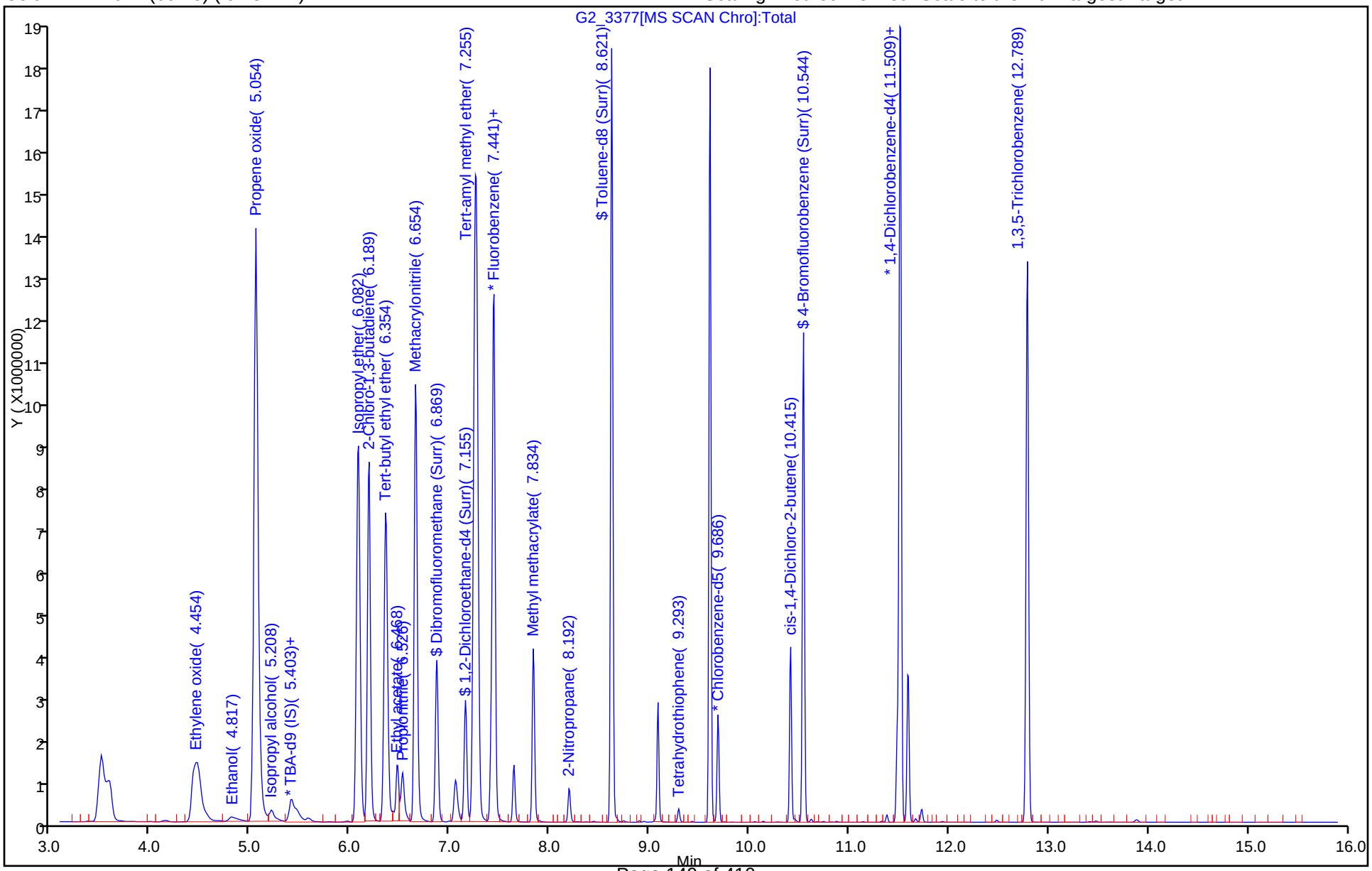
Report Date: 13-Apr-2016 05:42:16 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Injection Date:	12-Apr-2016 14:49:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	ic			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-321369/10	H3761.D
Level 2	IC 280-321369/11	H3762.D
Level 3	IC 280-321369/12	H3763.D
Level 4	IC 280-321369/13	H3764.D
Level 5	IC 280-321369/14	H3765.D
Level 6	IC 280-321369/15	H3766.D
Level 7	IC 280-321369/16	H3767.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	0.5804 0.6415	0.5114 0.6264	0.4621	0.6133	0.6311	Ave		0.5809				11.8		15.0			
Chloromethane	0.3037 0.2746	0.2438 0.2697	0.2583	0.2673	0.2748	Ave		0.2703			0.1000	6.8		15.0			
Vinyl chloride	0.3465 0.3390	0.3097 0.3420	0.2914	0.3286	0.3373	Ave		0.3278				6.1		30.0			
Bromomethane	0.4019 0.3231	0.3144 0.2981	0.2928	0.3264	0.3306	Ave		0.3268				11.0		15.0			
Chloroethane	0.2057 0.2121	0.2159 0.2025	0.2093	0.2109	0.2161	Ave		0.2103				2.4		15.0			
Dichlorofluoromethane	0.9705 0.8842	0.8665 0.9143	0.8396	0.8673	0.8796	Ave		0.8888				4.8		15.0			
Trichlorofluoromethane	0.9498 0.9592	0.8777 0.9961	0.8449	0.9188	0.9508	Ave		0.9282				5.6		15.0			
Ethyl ether	0.1302 0.1278	0.1253 0.1381	0.1293	0.1405	0.1295	Ave		0.1315				4.2		15.0			
Acrolein	+++++ 0.0067	0.0092 0.0074	0.0087	0.0081	0.0070	Ave		0.0078				12.5		15.0			
1,1-Dichloroethene	0.4937 0.4521	0.4428 0.4601	0.4165	0.4802	0.4655	Ave		0.4587				5.5		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.7457 0.7485	0.7104 0.7547	0.6894	0.7905	0.7649	Ave		0.7435				4.5		15.0			
Acetone	+++++ 0.0162	+++++ 0.0187	0.0172	0.0180	0.0162	Ave		0.0172				6.4		15.0			
Iodomethane	1.4399 1.1100	1.1313 1.1303	1.0762	1.1506	1.1053	Ave		1.1634				10.7		15.0			
Carbon disulfide	1.7009 1.5469	1.4872 1.5813	1.4213	1.6105	1.5667	Ave		1.5593				5.7		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	0.7751 0.5970	0.6282 0.6343	0.5521	0.6269	0.6035	Ave		0.6310				11.0		15.0			
Methyl acetate	0.0616 0.0634	0.0616 0.0696	0.0568	0.0669	0.0594	Ave		0.0628				6.9		15.0			
Methylene Chloride	+++++ 0.2945	0.4636 0.3031	0.3628	0.3387	0.3069	Lin2	0.1644	0.2942							0.9990		0.9900
t-Butyl alcohol	+++++ 1.3892	1.4692 1.3320	1.4215	1.4672	1.4472	Ave		1.4211				3.7		15.0			
Acrylonitrile	0.0166 0.0163	0.0162 0.0182	0.0155	0.0170	0.0160	Ave		0.0165				5.3		15.0			
Methyl tert-butyl ether	0.5509 0.4921	0.5122 0.5407	0.4903	0.5408	0.4955	Ave		0.5175				5.0		15.0			
trans-1,2-Dichloroethene	0.4509 0.4688	0.4536 0.4805	0.4457	0.4858	0.4630	Ave		0.4641				3.3		15.0			
Hexane	3.2834 3.2806	3.1043 3.2700	2.8646	3.4005	3.2368	Ave		3.2057				5.4		15.0			
1,1-Dichloroethane	0.8695 0.7622	0.7881 0.7889	0.7535	0.7809	0.7468	Ave		0.7843			0.1000	5.2		15.0			
Vinyl acetate	0.2873 0.2741	0.2418 0.3005	0.2541	0.2892	0.2625	Ave		0.2728				7.7		15.0			
cis-1,2-Dichloroethene	0.4560 0.4292	0.4355 0.4396	0.4119	0.4397	0.4287	Ave		0.4344				3.1		15.0			
2,2-Dichloropropane	+++++ 0.8645	1.0918 0.8680	0.9060	0.9262	0.8729	Ave		0.9216				9.4		15.0			
2-Butanone (MEK)	+++++ 0.0319	0.0262 0.0348	0.0276	0.0295	0.0300	Ave		0.0300				10.2		15.0			
2-Butanol	+++++ 1.3047	1.3710 1.3133	1.3218	1.3945	1.2938	Ave		1.3332				3.0		15.0			
Chlorobromomethane	0.1693 0.1732	0.1681 0.1846	0.1666	0.1814	0.1719	Ave		0.1736				4.0		15.0			
Tetrahydrofuran	+++++ 0.0222	0.0246 0.0250	0.0272	0.0242	0.0213	Ave		0.0241				8.6		15.0			
Chloroform	0.9006 0.7999	0.8446 0.8273	0.8039	0.8386	0.7998	Ave		0.8307				4.3		30.0			
1,1,1-Trichloroethane	0.9836 0.9580	0.9090 0.9770	0.8930	0.9863	0.9542	Ave		0.9516				3.9		15.0			
Cyclohexane	0.9661 0.7964	0.8016 0.8051	0.7421	0.8236	0.7943	Ave		0.8185				8.5		15.0			
1,1-Dichloropropene	0.8893 0.8107	0.8055 0.8190	0.7605	0.8328	0.8077	Ave		0.8179				4.7		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	0.9988 1.0047	0.9336 1.0113	0.9004	1.0165	0.9934	Ave		0.9798				4.6		15.0			
Isobutyl alcohol	+++++ 0.5542	0.4478 0.5008	0.4210	0.4868	0.5176	Ave		0.4880				9.8		15.0			
Benzene	1.4191 1.3032	1.2717 1.3085	1.2217	1.3193	1.2869	Ave		1.3043				4.6		15.0			
1,2-Dichloroethane	0.2610 0.2631	0.2586 0.2721	0.2566	0.2714	0.2578	Ave		0.2630				2.4		15.0			
Trichloroethene	0.7827 0.6133	0.6639 0.6136	0.5920	0.6248	0.6195	Ave		0.6443				10.1		15.0			
2-Pentanone	+++++ 0.1779	0.1721 0.1457	0.1600	0.1926	0.1677	Ave		0.1693				9.4		15.0			
Methylcyclohexane	0.8041 0.7413	0.7417 0.7423	0.6753	0.7694	0.7453	Ave		0.7456				5.2		15.0			
1,2-Dichloropropane	0.4658 0.3875	0.4095 0.3909	0.3912	0.4080	0.3874	Ave		0.4057				6.9		30.0			
Dibromomethane	0.2033 0.1911	0.1985 0.1985	0.1930	0.2010	0.1864	Ave		0.1960				3.1		15.0			
1,4-Dioxane	+++++ 0.0010	+++++ 0.0011	0.0007	0.0010	0.0009	Lin2	-0.014	0.0011							0.9970		0.9900
Dichlorobromomethane	0.7348 0.6614	0.6926 0.6693	0.6254	0.6648	0.6382	Ave		0.6695				5.4		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0613	+++++ 0.0763	0.0456	0.0552	0.0481	Lin	-0.200	0.0772							0.9910		0.9900
cis-1,3-Dichloropropene	2.3008 2.4500	2.3616 2.4036	2.3580	2.4840	2.3722	Ave		2.3900				2.6		15.0			
4-Methyl-2-pentanone (MIBK)	0.1081 0.1139	0.1079 0.1200	0.1053	0.1154	0.1133	Ave		0.1120				4.6		15.0			
Toluene	1.6867 1.6070	1.6088 1.5980	1.5486	1.6608	1.6107	Ave		1.6172				2.8		30.0			
trans-1,3-Dichloropropene	0.3938 0.3658	0.3611 0.3786	0.3502	0.3681	0.3658	Ave		0.3690				3.7		15.0			
Ethyl methacrylate	+++++ 1.1196	0.9773 1.1499	1.0941	1.1770	1.0487	Ave		1.0944				6.6		15.0			
1,1,2-Trichloroethane	+++++ 0.2052	0.2470 0.2118	0.2351	0.2304	0.2106	Ave		0.2234				7.4		15.0			
Tetrachloroethene	2.7808 3.0842	2.9267 2.9686	2.8016	3.1726	3.0266	Ave		2.9659				4.8		15.0			
1,3-Dichloropropane	1.7438 1.6066	1.6606 1.5992	1.5981	1.6993	1.5527	Ave		1.6372				4.1		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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-Hexanone	0.2803 0.3381	0.3081 0.3479	0.3038	0.3347	0.3363	Ave		0.3213				7.6		15.0			
Chlorodibromomethane	1.9550 2.1341	2.0825 2.1101	2.0695	2.2385	2.0551	Ave		2.0921				4.1		15.0			
Ethylene Dibromide	0.8923 1.1881	1.1066 1.1896	1.1200	1.2075	1.1464	Ave		1.1215				9.6		15.0			
1-Chlorohexane	4.3518 4.0430	4.2202 3.8697	3.8814	4.1892	4.0324	Ave		4.0840				4.4		15.0			
Chlorobenzene	4.3972 4.7748	4.8242 4.6275	4.6268	4.9181	4.6674	Ave		4.6909			0.3000	3.6		15.0			
1,1,1,2-Tetrachloroethane	3.2799 2.4413	2.6186 2.3766	2.5098	2.5960	2.3896	Ave		2.6017				12.1		15.0			
Ethylbenzene	2.5551 2.6840	2.5779 2.5092	2.5622	2.7436	2.6203	Ave		2.6075				3.1		30.0			
m-Xylene & p-Xylene	3.1798 3.5044	3.5286 3.3825	3.3136	3.6344	3.5152	Ave		3.4369				4.5		15.0			
o-Xylene	2.7602 3.0279	2.9942 2.8993	2.9330	3.2264	2.9385	Ave		2.9685				4.8		15.0			
Styrene	4.1413 4.4405	4.4123 4.3028	4.2338	4.5917	4.3823	Ave		4.3578				3.4		15.0			
Bromoform	0.8529 1.0776	1.0136 1.0765	0.9955	1.1247	1.0653	Ave		1.0295			0.1000	8.6		15.0			
Isopropylbenzene	6.2223 5.9392	6.0142 5.8657	5.6979	6.0655	5.9129	Ave		5.9597				2.8		15.0			
Cyclohexanone	+++++ 0.0136	0.0140 0.0134	0.0128	0.0143	0.0132	Ave		0.0135				4.0		15.0			
Bromobenzene	1.2482 1.3499	1.3178 1.3772	1.2803	1.3649	1.3296	Ave		1.3240				3.5		15.0			
1,1,2,2-Tetrachloroethane	0.8854 0.6817	0.7577 0.7107	0.7054	0.7426	0.6961	Ave		0.7399			0.3000	9.4		15.0			
1,2,3-Trichloropropane	0.2200 0.1664	0.1717 0.1741	0.1672	0.1778	0.1632	Ave		0.1772				11.0		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1467	0.1373 0.1538	0.1436	0.1502	0.1449	Ave		0.1461				3.9		15.0			
N-Propylbenzene	1.5544 1.5111	1.5179 1.4984	1.4753	1.5490	1.4969	Ave		1.5147				1.9		15.0			
2-Chlorotoluene	1.2323 1.1716	1.1977 1.1628	1.1365	1.1771	1.1521	Ave		1.1757				2.7		15.0			
1,3,5-Trimethylbenzene	4.8631 4.4212	4.4805 4.3464	4.3682	4.4921	4.3267	Ave		4.4712				4.1		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	1.3450 1.3797	1.3798 1.3156	1.3884	1.3527	1.3533	Ave		1.3592				1.9		15.0			
tert-Butylbenzene	5.5685 5.0078	5.1468 4.9045	5.0015	5.1378	4.9943	Ave		5.1087				4.3		15.0			
1,2,4-Trimethylbenzene	4.4378 4.0651	4.2407 3.9954	4.0152	4.1569	4.0388	Ave		4.1357				3.8		15.0			
sec-Butylbenzene	1.5891 1.4846	1.5307 1.4353	1.4788	1.5249	1.4905	Ave		1.5049				3.2		15.0			
1,3-Dichlorobenzene	2.3893 2.3369	2.0709 2.3142	2.2829	2.3427	2.2838	Ave		2.2887				4.5		15.0			
4-Isopropyltoluene	6.2357 5.8140	5.7640 5.6015	5.8010	5.9884	5.7886	Ave		5.8562				3.4		15.0			
1,4-Dichlorobenzene	2.8815 2.8317	3.2347 2.7460	2.9559	2.9397	2.8161	Ave		2.9151				5.4		15.0			
n-Butylbenzene	5.9791 5.5290	5.7076 5.3103	5.3613	5.6150	5.5036	Ave		5.5723				4.0		15.0			
1,2-Dichlorobenzene	1.9129 1.9413	2.0483 1.9365	2.0669	1.9469	1.8934	Ave		1.9638				3.4		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1338	0.1239 0.1397	0.1335	0.1428	0.1347	Ave		0.1347				4.8		15.0			
1,2,4-Trichlorobenzene	1.1321 1.4008	1.2250 1.3088	1.2986	1.3649	1.3353	Ave		1.2951				7.0		15.0			
Hexachlorobutadiene	1.9268 1.9032	1.9524 1.6674	1.8870	1.9398	1.9296	Ave		1.8866				5.3		15.0			
Naphthalene	+++++ 1.0790	0.9453 1.0743	0.9750	1.0405	1.0567	Ave		1.0285				5.4		15.0			
1,2,3-Trichlorobenzene	0.7233 0.9835	0.8510 0.9019	0.9039	0.9314	0.9327	Ave		0.8897				9.4		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-321369/10	H3761.D
Level 2	IC 280-321369/11	H3762.D
Level 3	IC 280-321369/12	H3763.D
Level 4	IC 280-321369/13	H3764.D
Level 5	IC 280-321369/14	H3765.D
Level 6	IC 280-321369/15	H3766.D
Level 7	IC 280-321369/16	H3767.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	10666 1249858	31571 2409966	57552	199233	410974	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	5582 534887	15050 1037860	32171	86828	178962	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	6367 660500	19116 1315814	36289	106754	219652	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	7386 629503	19410 1146764	36469	106031	215280	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	3781 413274	13329 779089	26062	68491	140709	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	17835 1722604	53489 3517747	104573	281731	572796	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	17455 1868730	54182 3832409	105227	298465	619206	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl ether	FB	Ave	2392 248978	7737 531324	16107	45646	84337	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 130656	5660 284252	10802	26338	45335	+++++ 300	10.00 600	20.0	50.0	100.0
1,1-Dichloroethene	FB	Ave	9074 880691	27336 1770241	51873	155985	303157	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	13705 1458244	43853 2903687	85868	256774	498142	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Acetone	FB	Ave	+++++ 126216	+++++ 287232	8588	23344	42096	+++++ 120	+++++ 240	8.00	20.0	40.0
Iodomethane	FB	Ave	26463 2162428	69841 4348988	134043	373732	719760	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	31258 3013659	91808 6084185	177023	523153	1020285	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Allyl chloride	FB	Ave	14244 1163019	38778 2440553	68765	203651	392993	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	5663 617943	19021 1338928	35374	108650	193417	1.50 150	5.00 300	10.0	25.0	50.0
Methylene Chloride	FB	Lin2	+++++ 573778	28622 1166294	45180	110004	199838	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
t-Butyl alcohol	TBA	Ave	+++++ 138810	4761 305554	9125	27541	50044	+++++ 300	10.0 600	20.0	50.0	100
Acrylonitrile	FB	Ave	3055 317835	9994 701487	19286	55123	103986	3.00 300	10.0 600	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	10125 958765	31618 2080548	61069	175670	322680	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	8287 913375	28002 1848821	55517	157801	301539	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexane	CBZ	Ave	14329 1394673	42126 2844405	79006	244085	468131	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	15979 1484962	48653 3035366	93842	253668	486313	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	10559 1068194	29852 2312021	63283	187903	341910	0.600 60.0	2.00 120	4.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	8380 836187	26887 1691463	51304	142828	279167	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	+++++ 1684177	67402 3339634	112846	300871	568418	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 248960	6480 536110	13765	38274	78132	+++++ 120	4.00 240	8.00	20.0	40.0
2-Butanol	TBA	Ave	+++++ 195551	6664 451896	12728	39264	67109	+++++ 450	15.0 900	30.0	75.0	150
Chlorobromomethane	FB	Ave	3111 337406	10375 710376	20746	58927	111977	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 86609	3033 192398	6763	15703	27788	+++++ 60.0	2.00 120	4.00	10.0	20.0
Chloroform	FB	Ave	16551 1558422	52140 3182914	100118	272397	520866	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	18077 1866332	56113 3759020	111219	320374	621386	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	17755 1551475	49483 3097655	92426	267529	517290	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloropropene	FB	Ave	16343 1579318	49726 3151074	94721	270527	525988	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	18355 1957359	57634 3890983	112145	330201	646909	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isobutyl alcohol	TBA	Ave	+++++ 138447	3628 287199	6757	22842	44741	+++++ 750	25.0 1500	50.0	125	250

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	26080 2538894	78505 5034426	152164	428533	838050	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	4796 512593	15967 1046894	31961	88164	167889	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	14385 1194739	40986 2360817	73731	202942	403448	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Pentanone	FB	Ave	+++++ 693064	21254 1121078	39856	125127	218412	+++++ 60.0	2.00 120	4.00	10.0	20.0
Methylcyclohexane	FB	Ave	14778 1444177	45785 2855928	84104	249910	485375	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	8560 754893	25282 1503900	48725	132515	252278	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	3736 372370	12253 763803	24036	65277	121385	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin2	+++++ 40061	+++++ 85964	1783	6180	12136	+++++ 600	+++++ 1200	40.0	100	200
Dichlorobromomethane	FB	Ave	13504 1288533	42755 2575055	77897	215955	415601	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chloroethyl vinyl ether	FB	Lin	+++++ 119498	+++++ 293468	5676	17931	31303	+++++ 30.0	+++++ 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	10041 1041546	32048 2090748	65034	178301	343080	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	7943 887622	26641 1847566	52479	149942	295226	1.20 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	30998 3130831	99316 6148534	192874	539461	1048888	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Ave	7238 712576	22290 1456778	43619	119555	238197	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Ave	+++++ 475971	13263 1000229	30176	84483	151673	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 399716	15250 814939	29281	74832	137172	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	12136 1311202	39716 2582215	77268	227726	437721	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	7610 683006	22535 1391057	44076	121979	224563	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	4893 575022	16726 1210501	33510	96110	194580	1.20 120	4.00 240	8.00	20.0	40.0
Chlorodibromomethane	CBZ	Ave	8532 907284	28260 1835466	57077	160679	297217	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylene Dibromide	CBZ	Ave	3894 505097	15017 1034747	30890	86674	165802	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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	9496 859403	28635 1683028	53524	150352	291595	0.150 15.0	0.500 30.0	1.00	2.50	5.00
Chlorobenzene	CBZ	Ave	19190 2029910	65466 4025239	127608	353019	675030	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	14314 1037879	35536 2067292	69221	186343	345593	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	11151 1141052	34983 2182622	70665	196934	378964	0.300 30.0	1.00 60.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	13877 1489801	47885 2942290	91389	260879	508386	0.300 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	12046 1287234	40633 2521929	80892	231594	424986	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	18073 1887800	59876 3742786	116768	329591	633791	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromoform	CBZ	Ave	3722 458139	13755 936413	27457	80734	154067	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	42179 4374926	138460 8409257	269518	767811	1491668	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Ave	+++++ 230646	7593 464973	14102	40993	76158	+++++ 1200	40.0 2400	80.0	200	400
Bromobenzene	DCB	Ave	8461 994398	30339 1974339	60560	172784	335427	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6002 502146	17444 1018892	33366	93997	175598	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	1491 122561	3954 249619	7907	22502	41180	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 108081	3161 220465	6793	19012	36553	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	10537 1113143	34945 2148152	69783	196078	377639	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	8353 863007	27574 1667096	53758	149011	290655	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	32965 3256763	103151 6231166	206622	568634	1091502	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	9117 1016340	31765 1886098	65671	171231	341408	0.300 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	37747 3688817	118491 7031249	236577	650377	1259928	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	30082 2994464	97631 5727956	189925	526202	1018870	0.300 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	10772 1093604	35240 2057629	69951	193032	376023	0.300 30.0	1.00 60.0	2.00	5.00	10.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/18/2016 22:46 Calibration End Date: 04/19/2016 01:10 Calibration ID: 25713

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
1,3-Dichlorobenzene	DCB	Ave	16196 1721382	47677 3317636	107984	296557	576134	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Isopropyltoluene	DCB	Ave	42270 4282690	132701 8030514	274395	758044	1460300	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	19533 2085867	74471 3936734	139817	372127	710414	0.300 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	40530 4072746	131402 7613002	253598	710782	1388403	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	12967 1430029	47157 2776243	97768	246454	477656	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 98558	2853 200297	6315	18080	33975	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	7674 1031885	28202 1876407	61425	172782	336850	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	13061 1401972	44948 2390401	89257	245547	486797	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	+++++ 794791	21763 1540116	46121	131715	266576	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	4903 724447	19593 1292994	42755	117902	235306	0.300 30.0	1.00 60.0	2.00	5.00	10.0

Curve Type Legend:

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

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3761.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Apr-2016 22:46:30 ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:09 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 00:51:09

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	3.983	3.965	0.018	96	81186	250.0	250.0	
* 2 Fluorobenzene	96	6.751	6.750	0.001	98	765742	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.086	11.085	0.001	88	181839	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.098	14.097	0.001	98	282444	12.5	12.5	
28 Dichlorodifluoromethane	85	2.120	2.115	0.005	96	10666	0.3000	0.2997	
30 Chloromethane	50	2.242	2.237	0.005	91	5582	0.3000	0.3371	
32 Vinyl chloride	62	2.364	2.359	0.005	94	6367	0.3000	0.3171	
35 Bromomethane	94	2.660	2.655	0.005	91	7386	0.3000	0.3690	
36 Chloroethane	64	2.729	2.725	0.004	93	3781	0.3000	0.2934	
37 Dichlorofluoromethane	67	2.903	2.899	0.004	96	17835	0.3000	0.3275	
38 Trichlorofluoromethane	101	2.973	2.969	0.005	97	17455	0.3000	0.3070	
40 Ethyl ether	59	3.217	3.212	0.005	82	2392	0.3000	0.2969	
44 Acrolein	56		3.352				ND	ND	
45 1,1-Dichloroethene	96	3.478	3.456	0.022	98	9074	0.3000	0.3229	
46 1,1,2-Trichloro-1,2,2-trif	151	3.478	3.491	-0.013	89	13705	0.3000	0.3009	
47 Acetone	43		3.491				ND	ND	
48 Iodomethane	142	3.652	3.630	0.022	99	26463	0.3000	0.3713	
50 Carbon disulfide	76	3.721	3.717	0.004	99	31258	0.3000	0.3272	
52 3-Chloro-1-propene	41	3.809	3.804	0.005	84	14244	0.3000	0.3685	
53 Methyl acetate	43	3.826	3.822	0.004	60	5663	1.50	1.47	
54 Methylene Chloride	84		3.943				ND	ND	
55 2-Methyl-2-propanol	59		4.048				ND	ND	
57 Acrylonitrile	53	4.226	4.205	0.021	33	3055	3.00	3.02	
56 Methyl tert-butyl ether	73	4.226	4.222	0.004	72	10125	0.3000	0.3194	
58 trans-1,2-Dichloroethene	96	4.226	4.222	0.004	96	8287	0.3000	0.2915	
59 Hexane	57	4.488	4.501	-0.013	94	14329	0.3000	0.3073	
60 1,1-Dichloroethane	63	4.679	4.675	0.004	94	15979	0.3000	0.3326	
61 Vinyl acetate	43	4.731	4.709	0.022	96	10559	0.6000	0.6319	
67 2-Butanone (MEK)	43		5.354				ND	ND	
65 cis-1,2-Dichloroethene	96	5.358	5.354	0.004	81	8380	0.3000	0.3149	
66 2,2-Dichloropropane	77		5.354				ND	ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45		5.580				ND	ND	
73 Chlorobromomethane	128	5.637	5.632	0.005	90	3111	0.3000	0.2926	
74 Tetrahydrofuran	42		5.702				ND	ND	
75 Chloroform	83	5.706	5.719	-0.013	93	16551	0.3000	0.3253	
76 1,1,1-Trichloroethane	97	5.967	5.963	0.004	98	18077	0.3000	0.3101	
77 Cyclohexane	56	6.037	6.033	0.004	90	17755	0.3000	0.3541	
78 1,1-Dichloropropene	75	6.141	6.154	-0.013	95	16343	0.3000	0.3262	
79 Carbon tetrachloride	117	6.176	6.172	0.004	98	18355	0.3000	0.3058	
80 Isobutyl alcohol	41		6.276				ND	ND	
81 Benzene	78	6.403	6.416	-0.013	96	26080	0.3000	0.3264	
82 1,2-Dichloroethane	62	6.437	6.433	0.004	4	4796	0.3000	0.2977	a
84 n-Heptane	43	6.716	6.712	0.004	93	19223	0.3000	0.3223	
86 Trichloroethene	95	7.221	7.216	0.005	95	14385	0.3000	0.3645	
88 2-Pentanone	43		7.460				ND	ND	
89 Methylcyclohexane	55	7.465	7.478	-0.013	91	14778	0.3000	0.3235	
90 1,2-Dichloropropane	63	7.517	7.512	0.005	89	8560	0.3000	0.3444	
92 Dibromomethane	93	7.691	7.687	0.005	91	3736	0.3000	0.3112	
93 1,4-Dioxane	88		7.704				ND	ND	
94 Dichlorobromomethane	83	7.882	7.878	0.004	95	13504	0.3000	0.3293	
96 2-Chloroethyl vinyl ether	63		8.278				ND	ND	
97 cis-1,3-Dichloropropene	75	8.492	8.487	0.005	94	10041	0.3000	0.2888	
98 4-Methyl-2-pentanone (MIBK	43	8.718	8.696	0.022	95	7943	1.20	1.16	
99 Toluene	91	8.962	8.957	0.005	99	30998	0.3000	0.3129	
100 trans-1,3-Dichloropropene	75	9.275	9.271	0.004	90	7238	0.3000	0.3202	
101 Ethyl methacrylate	69		9.393				ND	ND	
102 1,1,2-Trichloroethane	97	9.519	9.532	-0.013	35	7865	0.3000	0.5748	
103 Tetrachloroethene	164	9.745	9.741	0.004	95	12136	0.3000	0.2813	
104 1,3-Dichloropropane	76	9.797	9.776	0.021	86	7610	0.3000	0.3195	
105 2-Hexanone	43	9.919	9.915	0.004	92	4893	1.20	1.05	
108 Chlorodibromomethane	129	10.128	10.124	0.004	86	8532	0.3000	0.2803	
109 Ethylene Dibromide	107	10.320	10.315	0.005	97	3894	0.3000	0.2387	
110 1-Chlorohexane	91	11.103	11.099	0.004	62	9496	0.1500	0.1598	
111 Chlorobenzene	112	11.121	11.134	-0.013	94	19190	0.3000	0.2812	
112 1,1,1,2-Tetrachloroethane	131	11.260	11.255	0.005	73	14314	0.3000	0.3782	
113 Ethylbenzene	106	11.295	11.308	-0.013	98	11151	0.3000	0.2940	
114 m-Xylene & p-Xylene	106	11.486	11.482	0.004	98	13877	0.3000	0.2776	
115 o-Xylene	106	12.061	12.056	0.005	95	12046	0.3000	0.2790	
116 Styrene	104	12.078	12.074	0.004	94	18073	0.3000	0.2851	
117 Bromoform	173	12.339	12.335	0.004	92	3722	0.3000	0.2485	
118 Isopropylbenzene	105	12.548	12.544	0.004	95	42179	0.3000	0.3132	
120 Cyclohexanone	55		12.683				ND	ND	
122 Bromobenzene	156	12.931	12.927	0.004	94	8461	0.3000	0.2828	
121 1,1,2,2-Tetrachloroethane	83	12.931	12.927	0.004	63	6002	0.3000	0.3590	
123 1,2,3-Trichloropropane	110	13.001	12.979	0.022	75	1491	0.3000	0.3724	
124 trans-1,4-Dichloro-2-buten	53		13.014				ND	ND	
125 N-Propylbenzene	120	13.070	13.066	0.004	99	10537	0.3000	0.3079	
126 2-Chlorotoluene	126	13.157	13.171	-0.014	96	8353	0.3000	0.3144	
127 1,3,5-Trimethylbenzene	105	13.279	13.275	0.004	92	32965	0.3000	0.3263	
128 4-Chlorotoluene	126	13.297	13.292	0.005	98	9117	0.3000	0.2969	
129 tert-Butylbenzene	119	13.645	13.658	-0.013	93	37747	0.3000	0.3270	
130 1,2,4-Trimethylbenzene	105	13.715	13.710	0.005	94	30082	0.3000	0.3219	
131 sec-Butylbenzene	134	13.906	13.902	0.004	94	10772	0.3000	0.3168	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.028	14.024	0.004	94	16196	0.3000	0.3132	
133 4-Isopropyltoluene	119	14.063	14.058	0.005	96	42270	0.3000	0.3194	
134 1,4-Dichlorobenzene	146	14.115	14.111	0.004	92	19533	0.3000	0.2965	
137 n-Butylbenzene	91	14.481	14.494	-0.013	98	40530	0.3000	0.3219	
138 1,2-Dichlorobenzene	146	14.515	14.511	0.004	96	12967	0.3000	0.2922	
139 1,2-Dibromo-3-Chloropropan	157		15.294				ND	ND	
141 1,2,4-Trichlorobenzene	180	16.065	16.061	0.004	92	7674	0.3000	0.2622	
142 Hexachlorobutadiene	225	16.204	16.200	0.004	94	13061	0.3000	0.3064	
143 Naphthalene	128		16.287				ND	ND	
144 1,2,3-Trichlorobenzene	180	16.500	16.513	-0.013	92	4903	0.3000	0.2439	
S 151 1,2-Dichloroethene, Total	96				0		0.6000	0.6064	
S 149 1,2-Dichloroethene, Total	1				0		0.6000	0.6064	
S 150 Xylenes, Total	106				0		0.6000	0.5565	
S 148 1,3-Dichloropropene, Total	1				0		0.6000	0.6090	
S 145 Trihalomethanes, Total	1				0		1.20	1.18	
S 146 Xylenes, Total (URS)	1				0		0.6000	0.5565	
S 147 Total BTEX	1				0			1.49	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	0.15	Units: uL
MV-Gas/Ket A_00045	Amount Added:	0.15	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.15	Units: uL

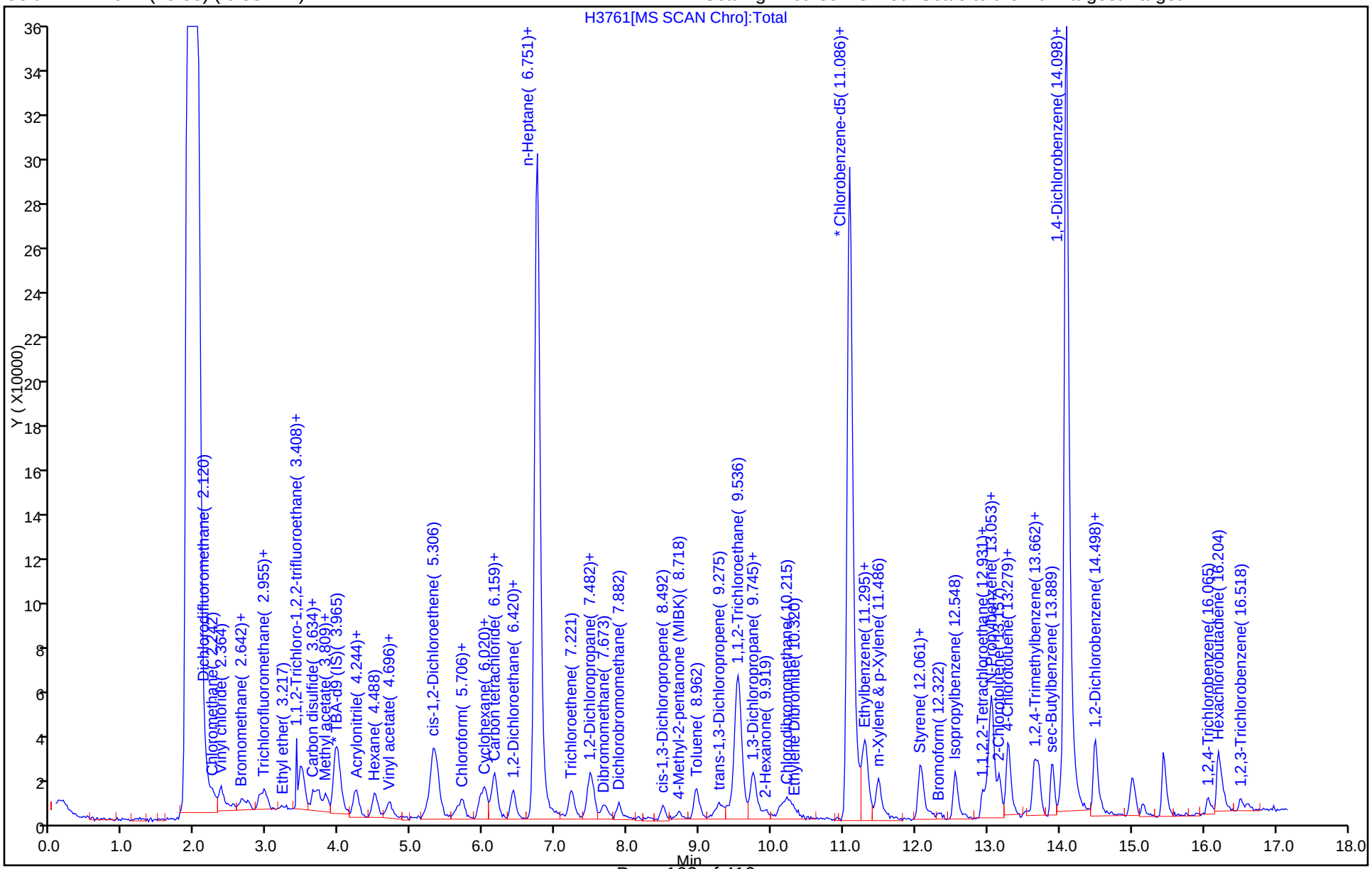
Report Date: 19-Apr-2016 09:18:10 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3761.D

Injection Date:	18-Apr-2016 22:46:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	10
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



Manual Integration/User Assign Peak Report

TestAmerica Denver

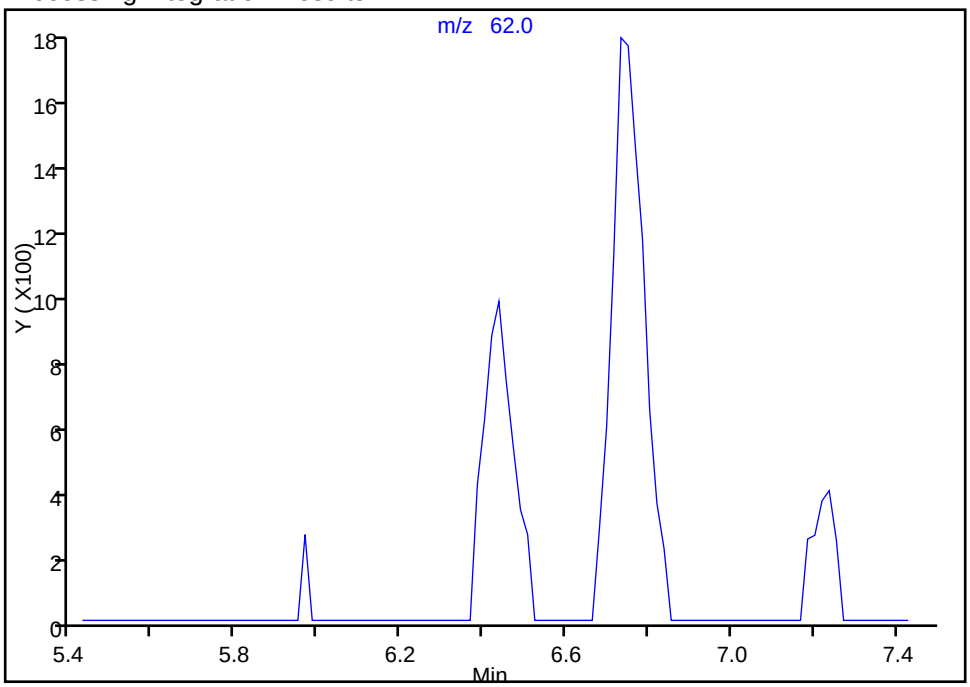
Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3761.D
Injection Date: 18-Apr-2016 22:46:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 3 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

82 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

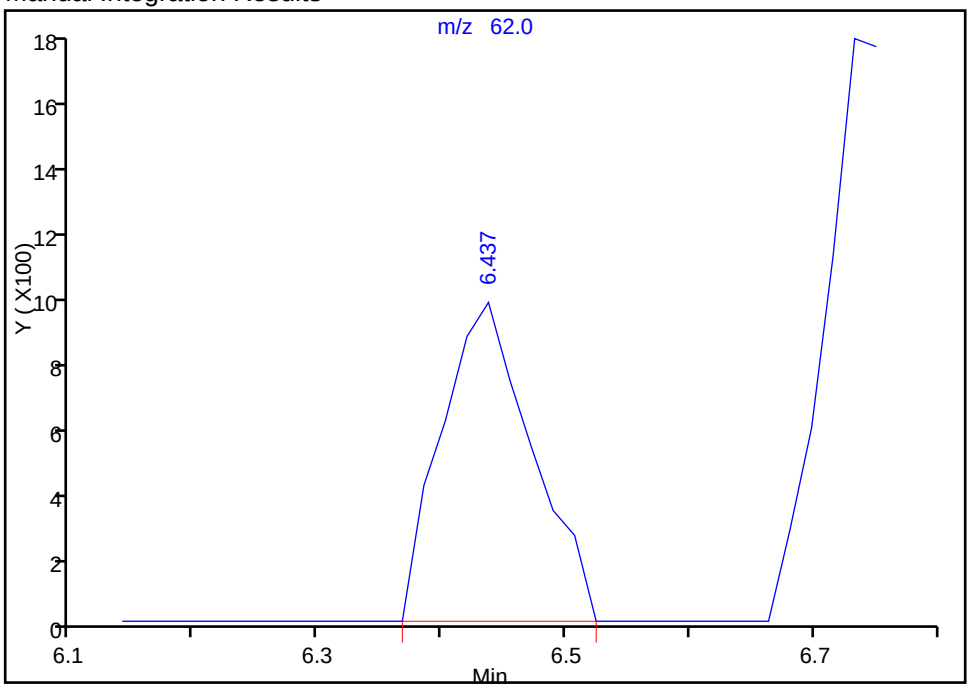
Not Detected
Expected RT: 6.43

Processing Integration Results



Manual Integration Results

RT: 6.44
Area: 4796
Amount: 0.297736
Amount Units: ug/l



Reviewer: seifertj, 19-Apr-2016 07:34:31
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3762.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Apr-2016 23:09:30 ALS Bottle#: 4 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:20 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 01:13:40

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	3.983	3.965	0.018	96	81011	250.0	250.0	
* 2 Fluorobenzene	96	6.751	6.750	0.001	98	771661	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.086	11.085	0.001	87	169630	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.098	14.097	0.001	96	287778	12.5	12.5	
28 Dichlorodifluoromethane	85	2.121	2.115	0.006	99	31571	1.00	0.8804	
30 Chloromethane	50	2.242	2.237	0.005	98	15050	1.00	0.9019	
32 Vinyl chloride	62	2.347	2.359	-0.012	97	19116	1.00	0.9447	
35 Bromomethane	94	2.660	2.655	0.005	93	19410	1.00	0.9622	
36 Chloroethane	64	2.730	2.725	0.005	98	13329	1.00	1.03	
37 Dichlorofluoromethane	67	2.904	2.899	0.005	97	53489	1.00	0.9748	
38 Trichlorofluoromethane	101	2.974	2.969	0.006	99	54182	1.00	0.9456	
40 Ethyl ether	59	3.217	3.212	0.005	89	7737	1.00	0.9528	
44 Acrolein	56	3.357	3.352	0.005	96	5660	10.0	11.7	
45 1,1-Dichloroethene	96	3.461	3.456	0.005	98	27336	1.00	0.9654	
46 1,1,2-Trichloro-1,2,2-trif	151	3.478	3.491	-0.013	95	43853	1.00	0.9555	
47 Acetone	43		3.491				ND	ND	
48 Iodomethane	142	3.635	3.630	0.005	99	69841	1.00	0.9725	
50 Carbon disulfide	76	3.722	3.717	0.005	100	91808	1.00	0.9538	
52 3-Chloro-1-propene	41	3.809	3.804	0.005	84	38778	1.00	1.00	
53 Methyl acetate	43	3.827	3.822	0.005	60	19021	5.00	4.91	
54 Methylene Chloride	84	3.949	3.943	0.006	93	28622	1.00	1.02	
55 2-Methyl-2-propanol	59	4.070	4.048	0.022	91	4761	10.0	10.3	
57 Acrylonitrile	53	4.210	4.205	0.005	33	9994	10.0	9.79	
56 Methyl tert-butyl ether	73	4.227	4.222	0.005	73	31618	1.00	0.9897	
58 trans-1,2-Dichloroethene	96	4.227	4.222	0.005	99	28002	1.00	0.9774	
59 Hexane	57	4.488	4.501	-0.013	95	42126	1.00	0.9683	
60 1,1-Dichloroethane	63	4.680	4.675	0.005	95	48653	1.00	1.00	
61 Vinyl acetate	43	4.715	4.709	0.006	97	29852	2.00	1.77	
66 2,2-Dichloropropane	77	5.359	5.354	0.005	79	67402	1.00	1.18	
67 2-Butanone (MEK)	43	5.359	5.354	0.005	31	6480	4.00	3.50	
65 cis-1,2-Dichloroethene	96	5.359	5.354	0.005	81	26887	1.00	1.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.568	5.580	-0.012	94	6664	15.0	15.4	
73 Chlorobromomethane	128	5.637	5.632	0.005	91	10375	1.00	0.9682	
74 Tetrahydrofuran	42	5.724	5.702	0.022	36	3033	2.00	2.04	
75 Chloroform	83	5.707	5.719	-0.012	94	52140	1.00	1.02	
76 1,1,1-Trichloroethane	97	5.951	5.963	-0.012	98	56113	1.00	0.9552	
77 Cyclohexane	56	6.020	6.033	-0.013	89	49483	1.00	0.9794	
78 1,1-Dichloropropene	75	6.142	6.154	-0.012	97	49726	1.00	0.9848	
79 Carbon tetrachloride	117	6.160	6.172	-0.012	96	57634	1.00	0.9528	
80 Isobutyl alcohol	41	6.299	6.276	0.023	90	3628	25.0	22.9	
81 Benzene	78	6.403	6.416	-0.013	96	78505	1.00	0.9750	
82 1,2-Dichloroethane	62	6.421	6.433	-0.012	95	15967	1.00	0.9836	
84 n-Heptane	43	6.699	6.712	-0.013	94	57248	1.00	0.9524	
86 Trichloroethene	95	7.222	7.216	0.006	96	40986	1.00	1.03	
88 2-Pentanone	43	7.465	7.460	0.005	50	21254	2.00	2.03	
89 Methylcyclohexane	55	7.483	7.478	0.005	92	45785	1.00	0.99	
90 1,2-Dichloropropane	63	7.517	7.512	0.005	95	25282	1.00	1.01	
92 Dibromomethane	93	7.692	7.687	0.006	96	12253	1.00	1.01	
93 1,4-Dioxane	88		7.704				ND	ND	
94 Dichlorobromomethane	83	7.883	7.878	0.005	99	42755	1.00	1.03	
96 2-Chloroethyl vinyl ether	63		8.278				ND	ND	
97 cis-1,3-Dichloropropene	75	8.492	8.487	0.005	96	32048	1.00	0.9881	
98 4-Methyl-2-pentanone (MIBK	43	8.719	8.696	0.023	97	26641	4.00	3.85	
99 Toluene	91	8.945	8.957	-0.012	98	99316	1.00	0.99	
100 trans-1,3-Dichloropropene	75	9.276	9.271	0.005	92	22290	1.00	0.9784	
101 Ethyl methacrylate	69	9.398	9.393	0.005	86	13263	1.00	0.8930	
102 1,1,2-Trichloroethane	97	9.537	9.532	0.005	39	15250	1.00	1.11	
103 Tetrachloroethene	164	9.746	9.741	0.005	97	39716	1.00	0.9868	
104 1,3-Dichloropropane	76	9.781	9.776	0.005	89	22535	1.00	1.01	
105 2-Hexanone	43	9.920	9.915	0.005	97	16726	4.00	3.84	
108 Chlorodibromomethane	129	10.129	10.124	0.005	90	28260	1.00	1.00	
109 Ethylene Dibromide	107	10.320	10.315	0.005	99	15017	1.00	0.9867	
110 1-Chlorohexane	91	11.086	11.099	-0.013	74	28635	0.5000	0.5167	
111 Chlorobenzene	112	11.121	11.134	-0.013	94	65466	1.00	1.03	
112 1,1,1,2-Tetrachloroethane	131	11.261	11.255	0.006	81	35536	1.00	1.01	
113 Ethylbenzene	106	11.313	11.308	0.005	99	34983	1.00	0.9887	
114 m-Xylene & p-Xylene	106	11.487	11.482	0.005	99	47885	1.00	1.03	
115 o-Xylene	106	12.061	12.056	0.005	97	40633	1.00	1.01	
116 Styrene	104	12.079	12.074	0.005	93	59876	1.00	1.01	
117 Bromoform	173	12.340	12.335	0.005	96	13755	1.00	0.9846	
118 Isopropylbenzene	105	12.549	12.544	0.005	95	138460	1.00	1.01	
120 Cyclohexanone	55	12.688	12.683	0.005	87	7593	40.0	41.4	
122 Bromobenzene	156	12.932	12.927	0.005	92	30339	1.00	1.00	
121 1,1,2,2-Tetrachloroethane	83	12.932	12.927	0.005	63	17444	1.00	1.02	
123 1,2,3-Trichloropropane	110	12.984	12.979	0.005	76	3954	1.00	0.9693	
124 trans-1,4-Dichloro-2-buten	53	13.019	13.014	0.005	55	3161	1.00	0.9399	
125 N-Propylbenzene	120	13.071	13.066	0.005	99	34945	1.00	1.00	
126 2-Chlorotoluene	126	13.176	13.171	0.005	97	27574	1.00	1.02	
127 1,3,5-Trimethylbenzene	105	13.280	13.275	0.005	95	103151	1.00	1.00	
128 4-Chlorotoluene	126	13.297	13.292	0.005	98	31765	1.00	1.02	
129 tert-Butylbenzene	119	13.646	13.658	-0.012	94	118491	1.00	1.01	
130 1,2,4-Trimethylbenzene	105	13.715	13.710	0.005	97	97631	1.00	1.03	
131 sec-Butylbenzene	134	13.907	13.902	0.005	94	35240	1.00	1.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.029	14.024	0.005	96	47677	1.00	0.9049	
133 4-Isopropyltoluene	119	14.063	14.058	0.005	97	132701	1.00	0.9843	
134 1,4-Dichlorobenzene	146	14.116	14.111	0.005	97	74471	1.00	1.11	
137 n-Butylbenzene	91	14.481	14.494	-0.013	97	131402	1.00	1.02	
138 1,2-Dichlorobenzene	146	14.516	14.511	0.005	98	47157	1.00	1.04	
139 1,2-Dibromo-3-Chloropropan	157	15.282	15.294	-0.012	85	2853	1.00	0.9197	
141 1,2,4-Trichlorobenzene	180	16.066	16.061	0.005	94	28202	1.00	0.9459	
142 Hexachlorobutadiene	225	16.205	16.200	0.005	97	44948	1.00	1.03	
143 Naphthalene	128	16.292	16.287	0.005	97	21763	1.00	0.9191	
144 1,2,3-Trichlorobenzene	180	16.518	16.513	0.005	95	19593	1.00	0.9566	
S 151 1,2-Dichloroethene, Total	96				0		2.00	1.98	
S 149 1,2-Dichloroethene, Total	1				0		2.00	1.98	
S 150 Xylenes, Total	106				0		2.00	2.04	
S 148 1,3-Dichloropropene, Total	1				0		2.00	1.97	
S 145 Trihalomethanes, Total	1				0		4.00	4.03	
S 146 Xylenes, Total (URS)	1				0		2.00	2.04	
S 147 Total BTEX	1				0			4.99	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	0.50	Units: uL
MV-Gas/Ket A_00045	Amount Added:	0.50	Units: uL
MV-2cleve+AVA_00015	Amount Added:	0.50	Units: uL

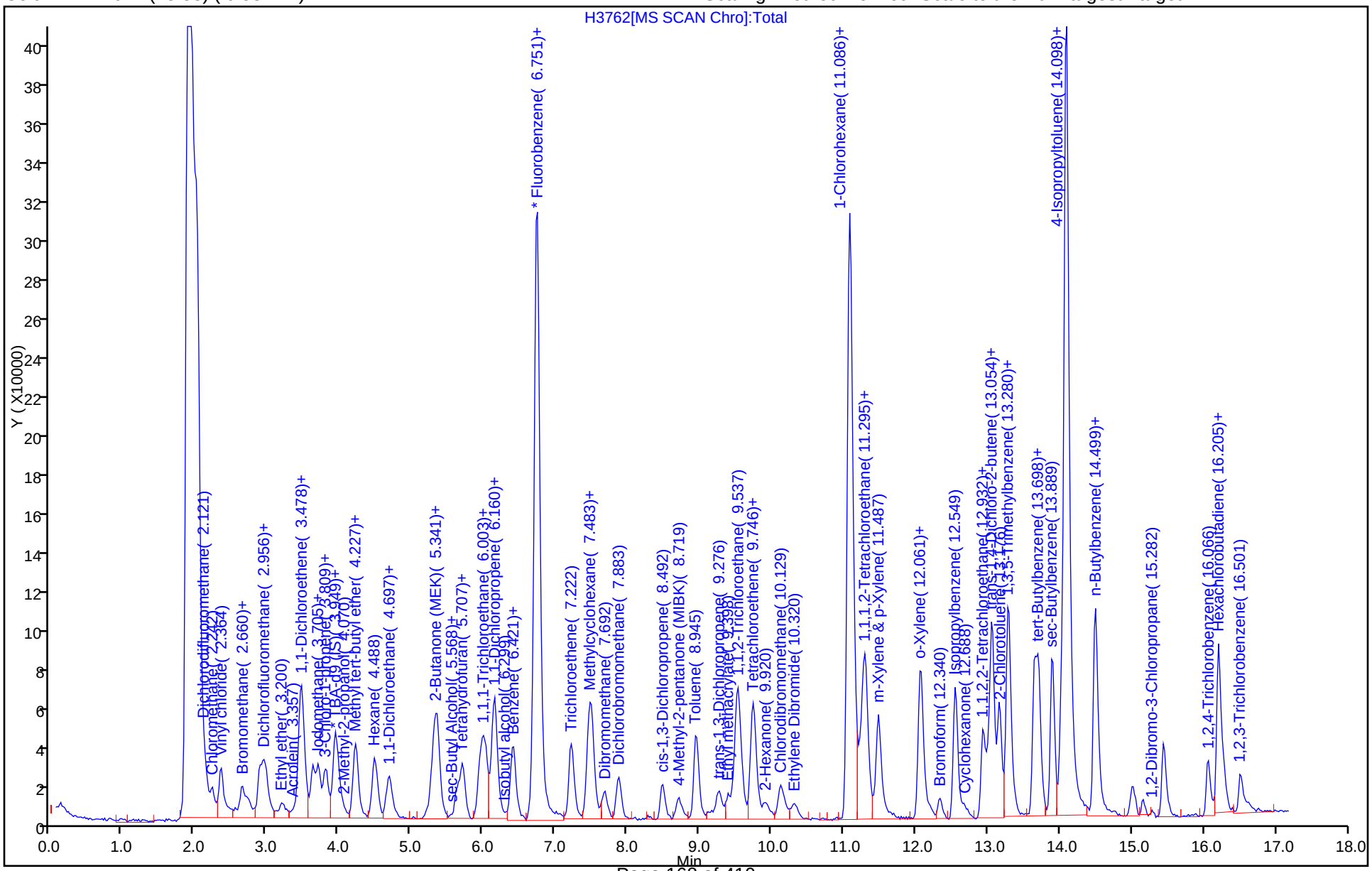
Report Date: 19-Apr-2016 09:18:22 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3762.D

Injection Date:	18-Apr-2016 23:09:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	11
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: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3763.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Apr-2016 23:33:30 ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:28 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 01:11:43

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	3.977	3.965	0.012	96	80243	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.750	-0.005	98	778423	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.085	-0.005	87	172375	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.092	14.097	-0.005	96	295633	12.5	12.5	
28 Dichlorodifluoromethane	85	2.131	2.115	0.016	99	57552	2.00	1.59	
30 Chloromethane	50	2.236	2.237	-0.001	99	32171	2.00	1.91	
32 Vinyl chloride	62	2.358	2.359	-0.001	98	36289	2.00	1.78	
35 Bromomethane	94	2.653	2.655	-0.002	92	36469	2.00	1.79	
36 Chloroethane	64	2.723	2.725	-0.002	99	26062	2.00	1.99	
37 Dichlorofluoromethane	67	2.897	2.899	-0.002	97	104573	2.00	1.89	
38 Trichlorofluoromethane	101	2.967	2.969	-0.001	99	105227	2.00	1.82	
40 Ethyl ether	59	3.211	3.212	-0.001	93	16107	2.00	1.97	
44 Acrolein	56	3.350	3.352	-0.002	97	10802	20.0	22.1	
45 1,1-Dichloroethene	96	3.472	3.456	0.016	98	51873	2.00	1.82	
46 1,1,2-Trichloro-1,2,2-trif	151	3.489	3.491	-0.002	93	85868	2.00	1.85	
47 Acetone	43	3.507	3.491	0.016	30	8588	8.00	8.00	
48 Iodomethane	142	3.628	3.630	-0.002	99	134043	2.00	1.85	
50 Carbon disulfide	76	3.715	3.717	-0.002	99	177023	2.00	1.82	
52 3-Chloro-1-propene	41	3.803	3.804	-0.001	83	68765	2.00	1.75	
53 Methyl acetate	43	3.820	3.822	-0.002	60	35374	10.0	9.05	
54 Methylene Chloride	84	3.942	3.943	-0.001	92	45180	2.00	1.91	
55 2-Methyl-2-propanol	59	4.064	4.048	0.016	97	9125	20.0	20.0	
57 Acrylonitrile	53	4.220	4.205	0.015	32	19286	20.0	18.7	
56 Methyl tert-butyl ether	73	4.220	4.222	-0.002	71	61069	2.00	1.89	
58 trans-1,2-Dichloroethene	96	4.238	4.222	0.016	99	55517	2.00	1.92	
59 Hexane	57	4.499	4.501	-0.002	95	79006	2.00	1.79	
60 1,1-Dichloroethane	63	4.690	4.675	0.015	95	93842	2.00	1.92	
61 Vinyl acetate	43	4.725	4.709	0.016	96	63283	4.00	3.73	
65 cis-1,2-Dichloroethene	96	5.352	5.354	-0.002	83	51304	2.00	1.90	
66 2,2-Dichloropropane	77	5.352	5.354	-0.002	87	112846	2.00	1.97	
67 2-Butanone (MEK)	43	5.369	5.354	0.015	35	13765	8.00	7.36	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.596	5.580	0.016	95	12728	30.0	29.7	
73 Chlorobromomethane	128	5.648	5.632	0.016	95	20746	2.00	1.92	
74 Tetrahydrofuran	42	5.718	5.702	0.016	40	6763	4.00	4.51	
75 Chloroform	83	5.718	5.719	-0.001	92	100118	2.00	1.94	
76 1,1,1-Trichloroethane	97	5.961	5.963	-0.002	98	111219	2.00	1.88	
77 Cyclohexane	56	6.031	6.033	-0.002	89	92426	2.00	1.81	
78 1,1-Dichloropropene	75	6.153	6.154	-0.001	98	94721	2.00	1.86	
79 Carbon tetrachloride	117	6.170	6.172	-0.002	96	112145	2.00	1.84	
80 Isobutyl alcohol	41	6.292	6.276	0.016	91	6757	50.0	43.1	
81 Benzene	78	6.414	6.416	-0.002	96	152164	2.00	1.87	
82 1,2-Dichloroethane	62	6.431	6.433	-0.002	96	31961	2.00	1.95	
84 n-Heptane	43	6.710	6.712	-0.002	94	107709	2.00	1.78	
86 Trichloroethene	95	7.215	7.216	-0.001	96	73731	2.00	1.84	
88 2-Pentanone	43	7.459	7.460	-0.001	50	39856	4.00	3.78	
89 Methylcyclohexane	55	7.476	7.478	-0.002	92	84104	2.00	1.81	
90 1,2-Dichloropropane	63	7.511	7.512	-0.001	96	48725	2.00	1.93	
92 Dibromomethane	93	7.685	7.687	-0.001	93	24036	2.00	1.97	
93 1,4-Dioxane	88	7.720	7.704	0.016	1	1783	40.0	40.1	a
94 Dichlorobromomethane	83	7.876	7.878	-0.002	99	77897	2.00	1.87	
96 2-Chloroethyl vinyl ether	63	8.294	8.278	0.016	89	5676	2.00	3.77	
97 cis-1,3-Dichloropropene	75	8.486	8.487	-0.001	97	65034	2.00	1.97	
98 4-Methyl-2-pentanone (MIBK	43	8.712	8.696	0.016	96	52479	8.00	7.52	
99 Toluene	91	8.956	8.957	-0.001	98	192874	2.00	1.92	
100 trans-1,3-Dichloropropene	75	9.269	9.271	-0.002	90	43619	2.00	1.90	
101 Ethyl methacrylate	69	9.408	9.393	0.015	89	30176	2.00	2.00	
102 1,1,2-Trichloroethane	97	9.530	9.532	-0.002	45	29281	2.00	2.11	
103 Tetrachloroethene	164	9.739	9.741	-0.002	98	77268	2.00	1.89	
104 1,3-Dichloropropane	76	9.774	9.776	-0.002	88	44076	2.00	1.95	
105 2-Hexanone	43	9.913	9.915	-0.002	98	33510	8.00	7.56	
108 Chlorodibromomethane	129	10.122	10.124	-0.002	89	57077	2.00	1.98	
109 Ethylene Dibromide	107	10.331	10.315	0.016	99	30890	2.00	2.00	
110 1-Chlorohexane	91	11.097	11.099	-0.002	86	53524	1.00	0.9504	
111 Chlorobenzene	112	11.132	11.134	-0.002	94	127608	2.00	1.97	
112 1,1,1,2-Tetrachloroethane	131	11.254	11.255	-0.001	92	69221	2.00	1.93	
113 Ethylbenzene	106	11.306	11.308	-0.002	99	70665	2.00	1.97	
114 m-Xylene & p-Xylene	106	11.480	11.482	-0.002	98	91389	2.00	1.93	
115 o-Xylene	106	12.055	12.056	-0.001	97	80892	2.00	1.98	
116 Styrene	104	12.089	12.074	0.015	95	116768	2.00	1.94	
117 Bromoform	173	12.333	12.335	-0.002	96	27457	2.00	1.93	
118 Isopropylbenzene	105	12.560	12.544	0.016	96	269518	2.00	1.91	
120 Cyclohexanone	55	12.681	12.683	-0.002	89	14102	80.0	75.6	
122 Bromobenzene	156	12.925	12.927	-0.002	95	60560	2.00	1.93	
121 1,1,2,2-Tetrachloroethane	83	12.943	12.927	0.016	92	33366	2.00	1.91	
123 1,2,3-Trichloropropane	110	12.995	12.979	0.016	78	7907	2.00	1.89	
124 trans-1,4-Dichloro-2-buten	53	13.012	13.014	-0.002	60	6793	2.00	1.97	
125 N-Propylbenzene	120	13.064	13.066	-0.002	99	69783	2.00	1.95	
126 2-Chlorotoluene	126	13.169	13.171	-0.002	96	53758	2.00	1.93	
127 1,3,5-Trimethylbenzene	105	13.273	13.275	-0.002	93	206622	2.00	1.95	
128 4-Chlorotoluene	126	13.291	13.292	-0.001	99	65671	2.00	2.04	
129 tert-Butylbenzene	119	13.656	13.658	-0.002	93	236577	2.00	1.96	
130 1,2,4-Trimethylbenzene	105	13.709	13.710	-0.001	95	189925	2.00	1.94	
131 sec-Butylbenzene	134	13.900	13.902	-0.002	94	69951	2.00	1.97	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.022	14.024	-0.002	98	107984	2.00	1.99	
133 4-Isopropyltoluene	119	14.057	14.058	-0.001	97	274395	2.00	1.98	
134 1,4-Dichlorobenzene	146	14.109	14.111	-0.002	95	139817	2.00	2.03	
137 n-Butylbenzene	91	14.492	14.494	-0.002	98	253598	2.00	1.92	
138 1,2-Dichlorobenzene	146	14.509	14.511	-0.002	98	97768	2.00	2.11	
139 1,2-Dibromo-3-Chloropropan	157	15.293	15.294	-0.001	89	6315	2.00	1.98	
141 1,2,4-Trichlorobenzene	180	16.059	16.061	-0.002	93	61425	2.00	2.01	
142 Hexachlorobutadiene	225	16.216	16.200	0.016	97	89257	2.00	2.00	
143 Naphthalene	128	16.285	16.287	-0.002	97	46121	2.00	1.90	
144 1,2,3-Trichlorobenzene	180	16.512	16.513	-0.001	97	42755	2.00	2.03	
S 151 1,2-Dichloroethene, Total	96				0		4.00	3.82	
S 149 1,2-Dichloroethene, Total	1				0		4.00	3.82	
S 150 Xylenes, Total	106				0		4.00	3.90	
S 148 1,3-Dichloropropene, Total	1				0		4.00	3.87	
S 145 Trihalomethanes, Total	1				0		8.00	7.72	
S 146 Xylenes, Total (URS)	1				0		4.00	3.90	
S 147 Total BTEX	1				0			9.66	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00045	Amount Added:	1.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	1.00	Units: uL

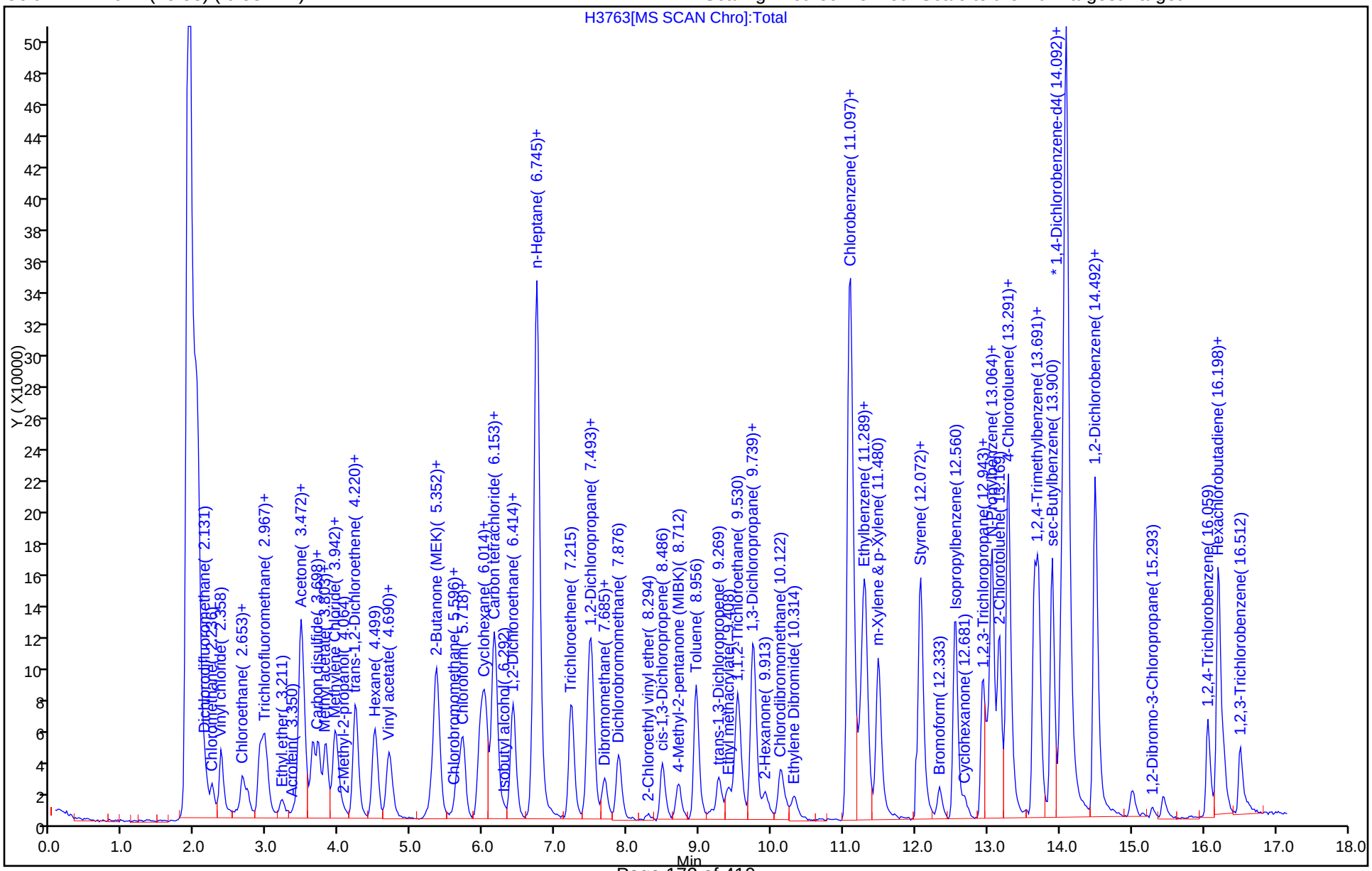
Report Date: 19-Apr-2016 09:18:29 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3763.D

Injection Date:	18-Apr-2016 23:33:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	12
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



Manual Integration/User Assign Peak Report

TestAmerica Denver

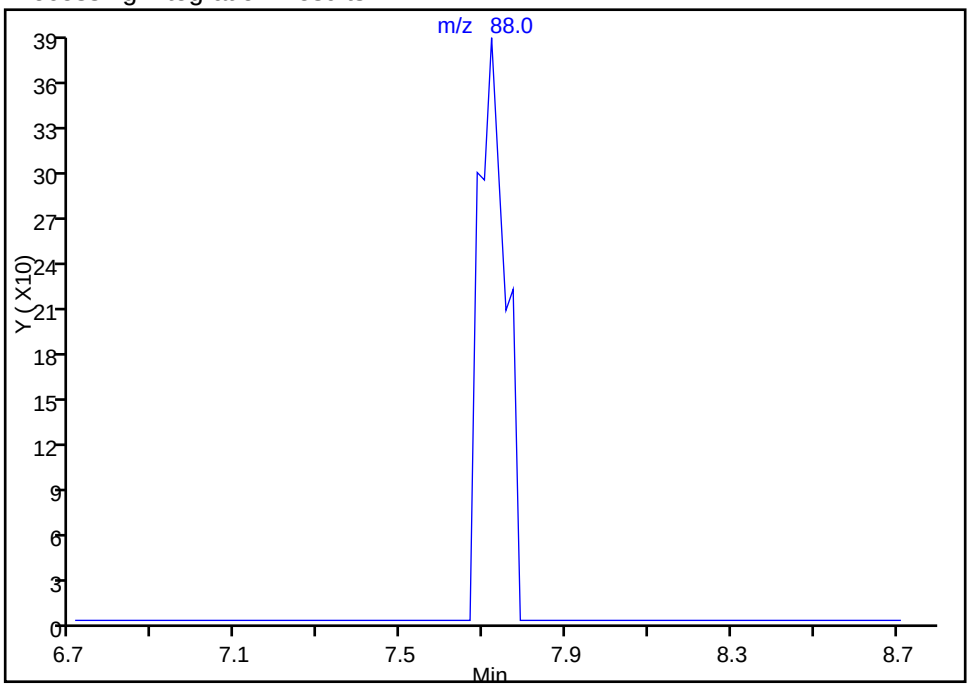
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Injection Date: 18-Apr-2016 23:33:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 5 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

93 1,4-Dioxane, CAS: 123-91-1

Signal: 1

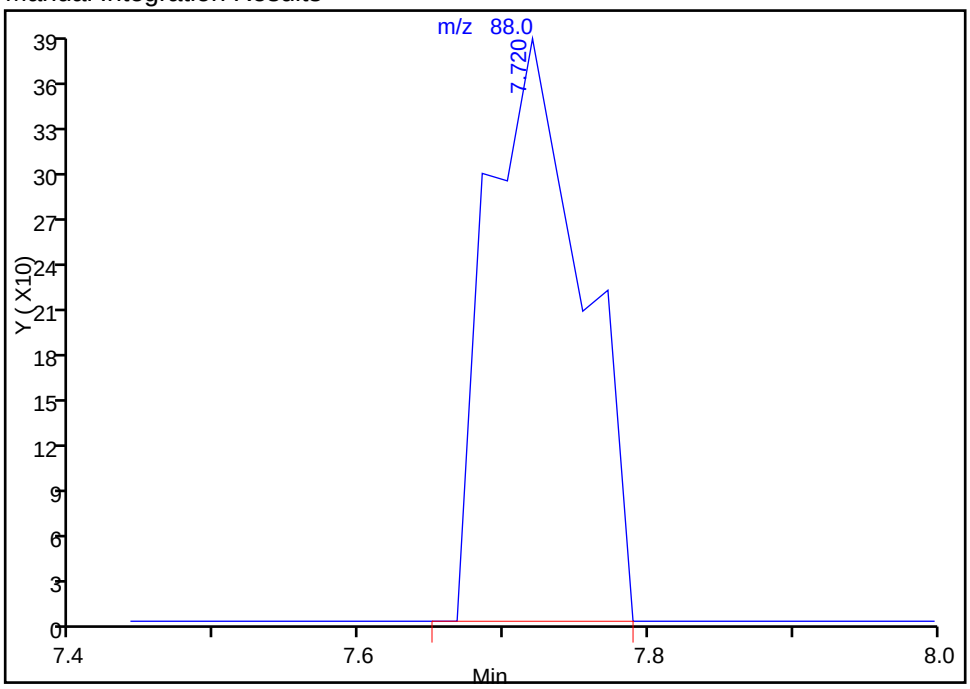
Not Detected
Expected RT: 7.70

Processing Integration Results



Manual Integration Results

RT: 7.72
Area: 1783
Amount: 40.117384
Amount Units: ug/l



Reviewer: seifertj, 19-Apr-2016 07:30:04
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3764.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 18-Apr-2016 23:59:30 ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:37 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 01:08:06

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	3.977	3.965	0.012	96	93855	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.750	-0.005	99	812072	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.085	-0.005	88	179450	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.092	14.097	-0.005	96	316466	12.5	12.5	
28 Dichlorodifluoromethane	85	2.132	2.115	0.017	97	199233	5.00	5.28	
30 Chloromethane	50	2.236	2.237	-0.001	98	86828	5.00	4.94	
32 Vinyl chloride	62	2.358	2.359	-0.001	98	106754	5.00	5.01	
35 Bromomethane	94	2.671	2.655	0.016	90	106031	5.00	4.99	
36 Chloroethane	64	2.741	2.725	0.016	99	68491	5.00	5.01	
37 Dichlorofluoromethane	67	2.898	2.899	-0.001	98	281731	5.00	4.88	
38 Trichlorofluoromethane	101	2.967	2.969	-0.001	100	298465	5.00	4.95	
40 Ethyl ether	59	3.211	3.212	-0.001	93	45646	5.00	5.34	
44 Acrolein	56	3.368	3.352	0.016	98	26338	50.0	51.7	
45 1,1-Dichloroethene	96	3.472	3.456	0.016	98	155985	5.00	5.23	
46 1,1,2-Trichloro-1,2,2-trif	151	3.490	3.491	-0.001	95	256774	5.00	5.32	
47 Acetone	43	3.507	3.491	0.016	28	23344	20.0	20.8	
48 Iodomethane	142	3.646	3.630	0.016	99	373732	5.00	4.94	
50 Carbon disulfide	76	3.716	3.717	-0.001	99	523153	5.00	5.16	
52 3-Chloro-1-propene	41	3.820	3.804	0.016	86	203651	5.00	4.97	
53 Methyl acetate	43	3.820	3.822	-0.002	97	108650	25.0	26.6	
54 Methylene Chloride	84	3.942	3.943	-0.001	92	110004	5.00	5.20	
55 2-Methyl-2-propanol	59	4.064	4.048	0.016	97	27541	50.0	51.6	
57 Acrylonitrile	53	4.203	4.205	-0.002	100	55123	50.0	51.3	
56 Methyl tert-butyl ether	73	4.238	4.222	0.016	90	175670	5.00	5.23	
58 trans-1,2-Dichloroethene	96	4.238	4.222	0.016	99	157801	5.00	5.23	
59 Hexane	57	4.499	4.501	-0.002	94	244085	5.00	5.30	
60 1,1-Dichloroethane	63	4.691	4.675	0.016	95	253668	5.00	4.98	
61 Vinyl acetate	43	4.726	4.709	0.017	96	187903	10.0	10.6	
67 2-Butanone (MEK)	43	5.370	5.354	0.016	33	38274	20.0	19.6	
65 cis-1,2-Dichloroethene	96	5.352	5.354	-0.002	82	142828	5.00	5.06	
66 2,2-Dichloropropane	77	5.352	5.354	-0.002	87	300871	5.00	5.03	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.579	5.580	-0.001	96	39264	75.0	78.4	
73 Chlorobromomethane	128	5.648	5.632	0.016	93	58927	5.00	5.23	
74 Tetrahydrofuran	42	5.701	5.702	-0.001	36	15703	10.0	10.0	
75 Chloroform	83	5.718	5.719	-0.001	92	272397	5.00	5.05	
76 1,1,1-Trichloroethane	97	5.962	5.963	-0.001	97	320374	5.00	5.18	
77 Cyclohexane	56	6.031	6.033	-0.002	89	267529	5.00	5.03	
78 1,1-Dichloropropene	75	6.153	6.154	-0.001	98	270527	5.00	5.09	
79 Carbon tetrachloride	117	6.171	6.172	-0.001	98	330201	5.00	5.19	
80 Isobutyl alcohol	41	6.293	6.276	0.017	90	22842	125.0	124.7	
81 Benzene	78	6.414	6.416	-0.002	96	428533	5.00	5.06	
82 1,2-Dichloroethane	62	6.432	6.433	-0.001	96	88164	5.00	5.16	
84 n-Heptane	43	6.710	6.712	-0.002	94	330555	5.00	5.23	
86 Trichloroethene	95	7.215	7.216	-0.001	96	202942	5.00	4.85	
88 2-Pentanone	43	7.459	7.460	-0.001	97	125127	10.0	11.4	
89 Methylcyclohexane	55	7.476	7.478	-0.002	92	249910	5.00	5.16	
90 1,2-Dichloropropane	63	7.511	7.512	-0.001	96	132515	5.00	5.03	
92 Dibromomethane	93	7.685	7.687	-0.001	94	65277	5.00	5.13	
93 1,4-Dioxane	88	7.703	7.704	-0.001	29	6180	100.0	102.2	a
94 Dichlorobromomethane	83	7.877	7.878	-0.001	100	215955	5.00	4.97	
96 2-Chloroethyl vinyl ether	63	8.277	8.278	-0.001	93	17931	5.00	6.17	
97 cis-1,3-Dichloropropene	75	8.486	8.487	-0.001	96	178301	5.00	5.20	
98 4-Methyl-2-pentanone (MIBK	43	8.712	8.696	0.016	96	149942	20.0	20.6	
99 Toluene	91	8.956	8.957	-0.001	99	539461	5.00	5.13	
100 trans-1,3-Dichloropropene	75	9.270	9.271	-0.001	92	119555	5.00	4.99	
101 Ethyl methacrylate	69	9.391	9.393	-0.002	90	84483	5.00	5.38	
102 1,1,2-Trichloroethane	97	9.531	9.532	-0.001	78	74832	5.00	5.16	
103 Tetrachloroethene	164	9.740	9.741	-0.001	97	227726	5.00	5.35	
104 1,3-Dichloropropane	76	9.774	9.776	-0.002	90	121979	5.00	5.19	
105 2-Hexanone	43	9.914	9.915	-0.001	98	96110	20.0	20.8	
108 Chlorodibromomethane	129	10.123	10.124	-0.001	90	160679	5.00	5.35	
109 Ethylene Dibromide	107	10.314	10.315	-0.001	100	86674	5.00	5.38	
110 1-Chlorohexane	91	11.098	11.099	-0.001	92	150352	2.50	2.56	
111 Chlorobenzene	112	11.132	11.134	-0.002	95	353019	5.00	5.24	
112 1,1,1,2-Tetrachloroethane	131	11.272	11.255	0.017	94	186343	5.00	4.99	
113 Ethylbenzene	106	11.307	11.308	-0.001	99	196934	5.00	5.26	
114 m-Xylene & p-Xylene	106	11.481	11.482	-0.001	98	260879	5.00	5.29	
115 o-Xylene	106	12.055	12.056	-0.001	97	231594	5.00	5.43	
116 Styrene	104	12.090	12.074	0.016	94	329591	5.00	5.27	
117 Bromoform	173	12.334	12.335	-0.001	97	80734	5.00	5.46	
118 Isopropylbenzene	105	12.543	12.544	-0.001	96	767811	5.00	5.09	
120 Cyclohexanone	55	12.682	12.683	-0.001	92	40993	200.0	211.2	
122 Bromobenzene	156	12.943	12.927	0.016	93	172784	5.00	5.15	
121 1,1,2,2-Tetrachloroethane	83	12.943	12.927	0.016	95	93997	5.00	5.02	
123 1,2,3-Trichloropropane	110	12.995	12.979	0.016	82	22502	5.00	5.02	
124 trans-1,4-Dichloro-2-buten	53	13.013	13.014	-0.001	66	19012	5.00	5.14	
125 N-Propylbenzene	120	13.065	13.066	-0.001	99	196078	5.00	5.11	
126 2-Chlorotoluene	126	13.169	13.171	-0.002	96	149011	5.00	5.01	
127 1,3,5-Trimethylbenzene	105	13.274	13.275	-0.001	95	568634	5.00	5.02	
128 4-Chlorotoluene	126	13.291	13.292	-0.001	99	171231	5.00	4.98	
129 tert-Butylbenzene	119	13.657	13.658	-0.001	92	650377	5.00	5.03	
130 1,2,4-Trimethylbenzene	105	13.709	13.710	-0.001	96	526202	5.00	5.03	
131 sec-Butylbenzene	134	13.901	13.902	-0.001	94	193032	5.00	5.07	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.022	14.024	-0.002	97	296557	5.00	5.12	
133 4-Isopropyltoluene	119	14.057	14.058	-0.001	97	758044	5.00	5.11	
134 1,4-Dichlorobenzene	146	14.109	14.111	-0.002	95	372127	5.00	5.04	
137 n-Butylbenzene	91	14.492	14.494	-0.002	98	710782	5.00	5.04	
138 1,2-Dichlorobenzene	146	14.510	14.511	-0.001	98	246454	5.00	4.96	
139 1,2-Dibromo-3-Chloropropan	157	15.293	15.294	-0.001	97	18080	5.00	5.30	
141 1,2,4-Trichlorobenzene	180	16.059	16.061	-0.002	95	172782	5.00	5.27	
142 Hexachlorobutadiene	225	16.216	16.200	0.016	97	245547	5.00	5.14	
143 Naphthalene	128	16.286	16.287	-0.001	97	131715	5.00	5.06	
144 1,2,3-Trichlorobenzene	180	16.512	16.513	-0.001	96	117902	5.00	5.23	
S 151 1,2-Dichloroethene, Total	96				0		10.0	10.3	
S 149 1,2-Dichloroethene, Total	1				0		10.0	10.3	
S 150 Xylenes, Total	106				0		10.0	10.7	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.2	
S 145 Trihalomethanes, Total	1				0		20.0	20.8	
S 146 Xylenes, Total (URS)	1				0		10.0	10.7	
S 147 Total BTEX	1				0			26.2	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	2.50	Units: uL
MV-Gas/Ket A_00045	Amount Added:	2.50	Units: uL
MV-2cleve+AVA_00015	Amount Added:	2.50	Units: uL

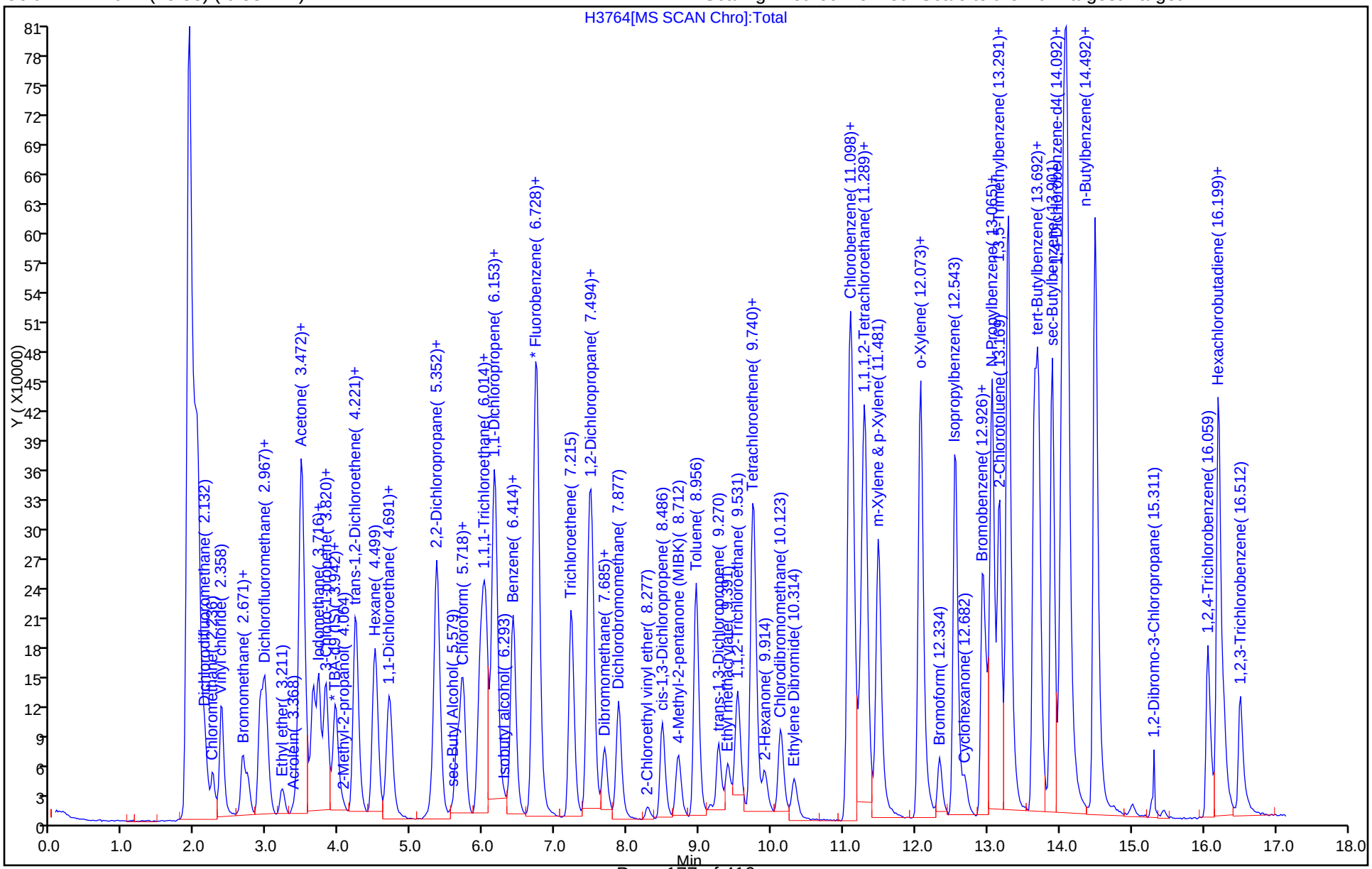
Report Date: 19-Apr-2016 09:18:39 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3764.D

Injection Date:	18-Apr-2016 23:59:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	13
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



Manual Integration/User Assign Peak Report

TestAmerica Denver

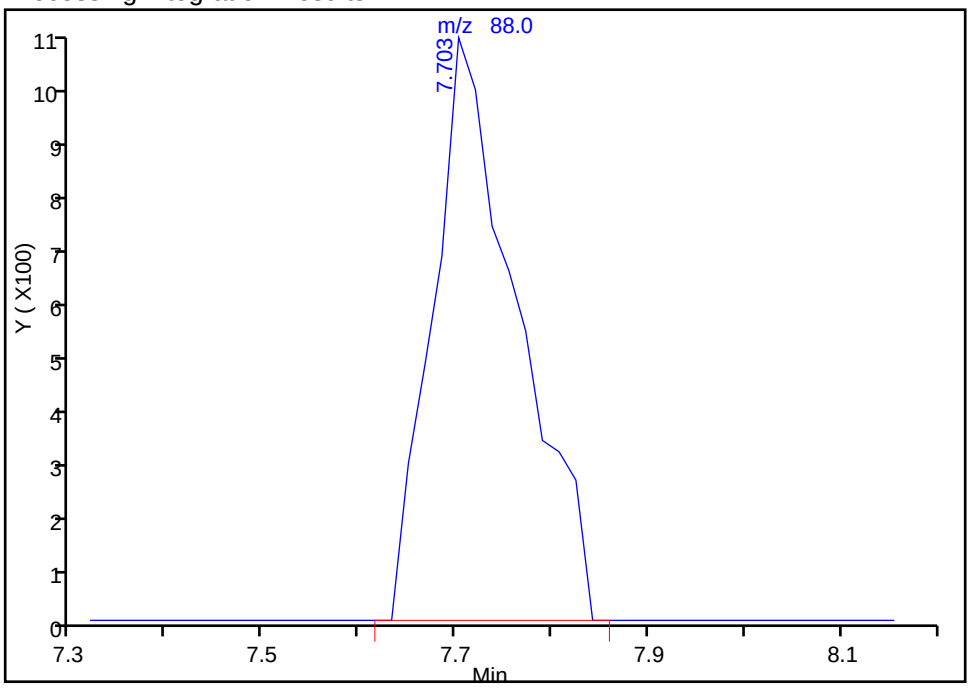
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Injection Date: 18-Apr-2016 23:59:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

93 1,4-Dioxane, CAS: 123-91-1

Signal: 1

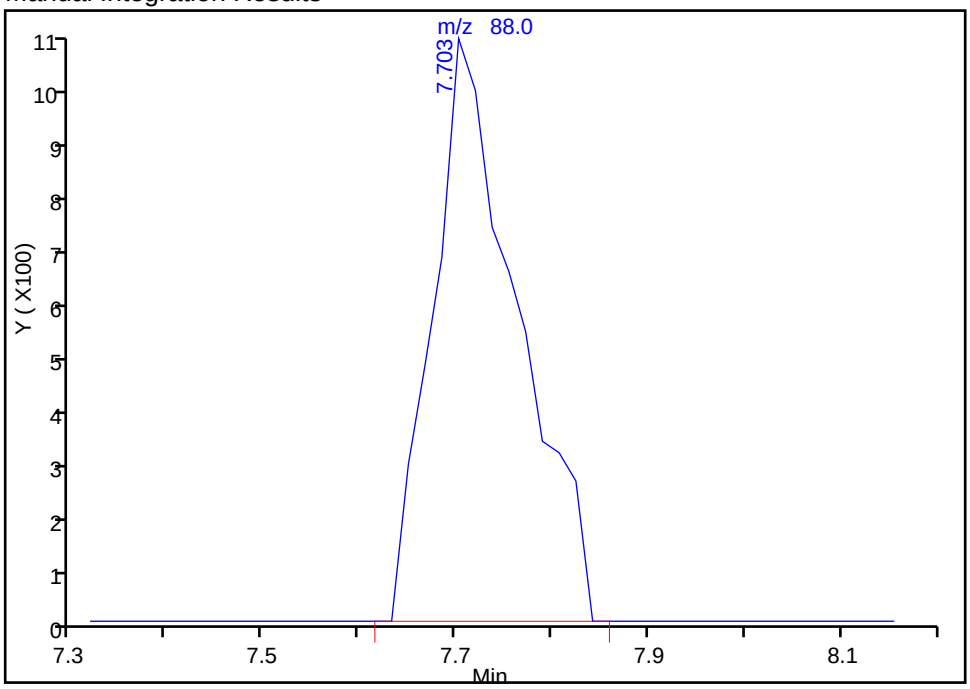
Processing Integration Results

RT: 7.70
Area: 6180
Amount: 101.0344
Amount Units: ug/l



Manual Integration Results

RT: 7.70
Area: 6180
Amount: 102.2339
Amount Units: ug/l



Reviewer: bergerb, 19-Apr-2016 01:08:28
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Denver

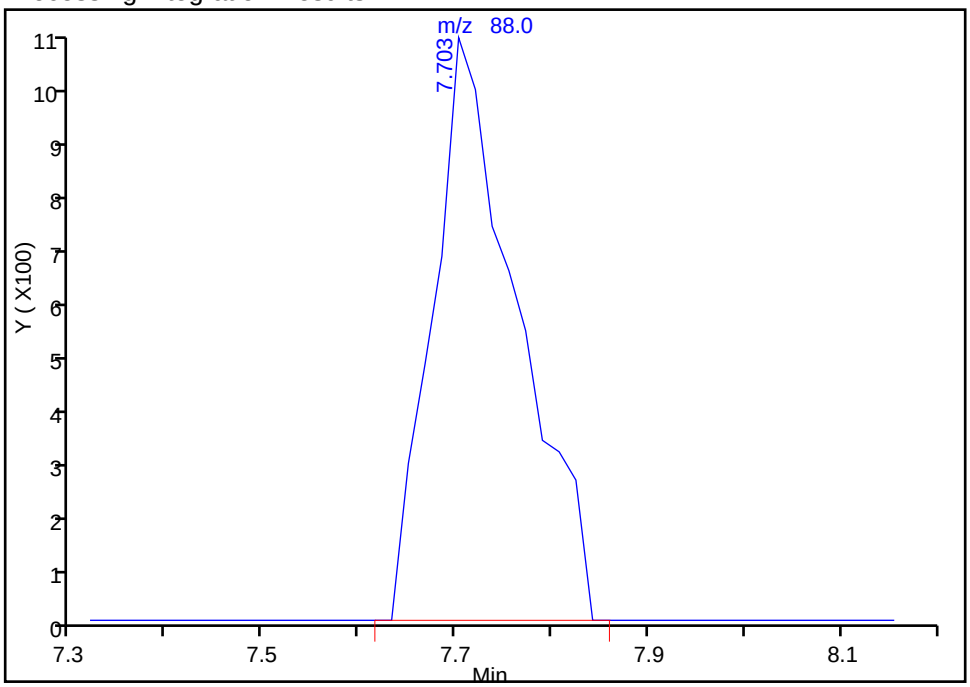
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Injection Date: 18-Apr-2016 23:59:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 6 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

93 1,4-Dioxane, CAS: 123-91-1

Signal: 1

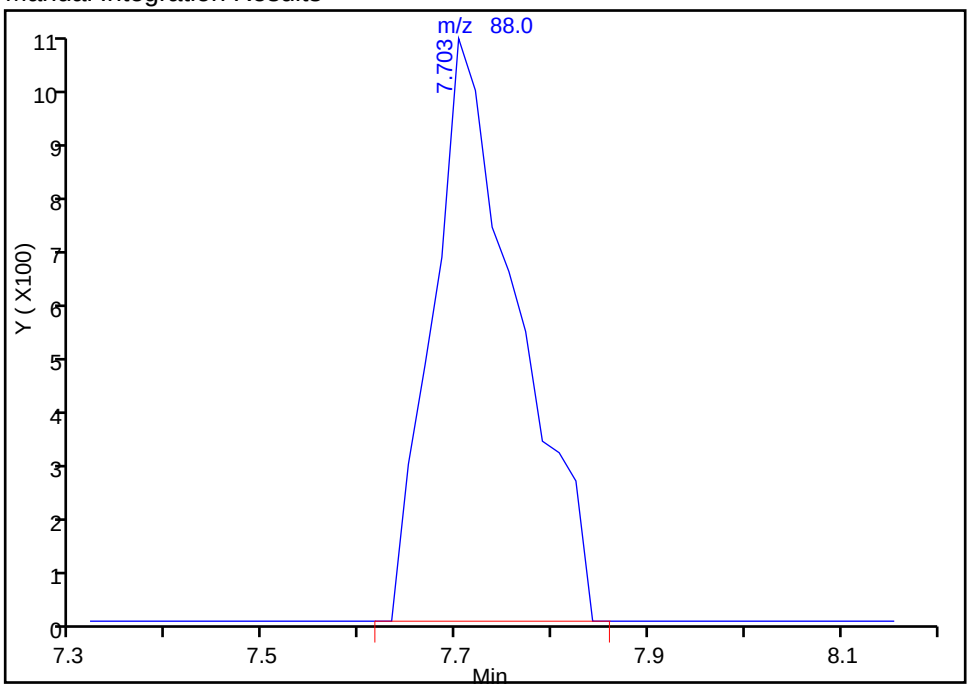
Processing Integration Results

RT: 7.70
Area: 6180
Amount: 101.0344
Amount Units: ug/l



Manual Integration Results

RT: 7.70
Area: 6180
Amount: 102.2339
Amount Units: ug/l



Reviewer: seifertj, 19-Apr-2016 07:30:24
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3765.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-Apr-2016 00:23:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:47 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 00:53:03

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	3.961	3.961	0.000	96	86447	250.0	250.0	
* 2 Fluorobenzene	96	6.746	6.746	0.000	99	814023	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.081	11.081	0.000	91	180783	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.093	0.000	96	315341	12.5	12.5	
28 Dichlorodifluoromethane	85	2.115	2.115	0.000	100	410974	10.0	10.9	
30 Chloromethane	50	2.237	2.237	0.000	98	178962	10.0	10.2	
32 Vinyl chloride	62	2.359	2.359	0.000	98	219652	10.0	10.3	
35 Bromomethane	94	2.655	2.655	0.000	91	215280	10.0	10.1	
36 Chloroethane	64	2.725	2.725	0.000	99	140709	10.0	10.3	
37 Dichlorofluoromethane	67	2.899	2.899	0.000	97	572796	10.0	9.90	
38 Trichlorofluoromethane	101	2.969	2.969	0.000	100	619206	10.0	10.2	
40 Ethyl ether	59	3.212	3.212	0.000	93	84337	10.0	9.85	
44 Acrolein	56	3.352	3.352	0.000	98	45335	100.0	88.8	
45 1,1-Dichloroethene	96	3.456	3.456	0.000	98	303157	10.0	10.1	
46 1,1,2-Trichloro-1,2,2-trif	151	3.491	3.491	0.000	95	498142	10.0	10.3	
47 Acetone	43	3.491	3.491	0.000	32	42096	40.0	37.5	
48 Iodomethane	142	3.630	3.630	0.000	99	719760	10.0	9.50	
50 Carbon disulfide	76	3.717	3.717	0.000	99	1020285	10.0	10.0	
52 3-Chloro-1-propene	41	3.804	3.804	0.000	85	392993	10.0	9.56	
53 Methyl acetate	43	3.822	3.822	0.000	97	193417	50.0	47.3	
54 Methylene Chloride	84	3.943	3.943	0.000	93	199838	10.0	9.87	
55 2-Methyl-2-propanol	59	4.048	4.048	0.000	99	50044	100.0	101.8	
57 Acrylonitrile	53	4.205	4.205	0.000	100	103986	100.0	96.5	
56 Methyl tert-butyl ether	73	4.222	4.222	0.000	75	322680	10.0	9.57	
58 trans-1,2-Dichloroethene	96	4.222	4.222	0.000	100	301539	10.0	9.98	
59 Hexane	57	4.501	4.501	0.000	94	468131	10.0	10.1	
60 1,1-Dichloroethane	63	4.675	4.675	0.000	95	486313	10.0	9.52	
61 Vinyl acetate	43	4.709	4.709	0.000	96	341910	20.0	19.2	
66 2,2-Dichloropropane	77	5.354	5.354	0.000	87	568418	10.0	9.47	
67 2-Butanone (MEK)	43	5.354	5.354	0.000	33	78132	40.0	40.0	
65 cis-1,2-Dichloroethene	96	5.354	5.354	0.000	82	279167	10.0	9.87	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.580	5.580	0.000	96	67109	150.0	145.6	
73 Chlorobromomethane	128	5.632	5.632	0.000	93	111977	10.0	9.91	
74 Tetrahydrofuran	42	5.702	5.702	0.000	39	27788	20.0	17.7	
75 Chloroform	83	5.719	5.719	0.000	93	520866	10.0	9.63	
76 1,1,1-Trichloroethane	97	5.963	5.963	0.000	98	621386	10.0	10.0	
77 Cyclohexane	56	6.033	6.033	0.000	89	517290	10.0	9.71	
78 1,1-Dichloropropene	75	6.154	6.154	0.000	97	525988	10.0	9.87	
79 Carbon tetrachloride	117	6.172	6.172	0.000	97	646909	10.0	10.1	
80 Isobutyl alcohol	41	6.276	6.276	0.000	92	44741	250.0	265.1	
81 Benzene	78	6.416	6.416	0.000	96	838050	10.0	9.87	
82 1,2-Dichloroethane	62	6.433	6.433	0.000	96	167889	10.0	9.80	
84 n-Heptane	43	6.712	6.712	0.000	94	648815	10.0	10.2	
86 Trichloroethene	95	7.216	7.216	0.000	97	403448	10.0	9.62	
88 2-Pentanone	43	7.460	7.460	0.000	97	218412	20.0	19.8	
89 Methylcyclohexane	55	7.478	7.478	0.000	92	485375	10.0	10.0	
90 1,2-Dichloropropane	63	7.512	7.512	0.000	88	252278	10.0	9.55	
92 Dibromomethane	93	7.687	7.687	0.000	94	121385	10.0	9.51	
93 1,4-Dioxane	88	7.704	7.704	0.000	30	12136	200.0	187.5	
94 Dichlorobromomethane	83	7.878	7.878	0.000	100	415601	10.0	9.53	
96 2-Chloroethyl vinyl ether	63	8.278	8.278	0.000	93	31303	10.0	8.81	
97 cis-1,3-Dichloropropene	75	8.487	8.487	0.000	96	343080	10.0	9.93	
98 4-Methyl-2-pentanone (MIBK	43	8.696	8.696	0.000	97	295226	40.0	40.5	
99 Toluene	91	8.957	8.957	0.000	98	1048888	10.0	9.96	
100 trans-1,3-Dichloropropene	75	9.271	9.271	0.000	92	238197	10.0	9.91	
101 Ethyl methacrylate	69	9.393	9.393	0.000	89	151673	10.0	9.58	
102 1,1,2-Trichloroethane	97	9.532	9.532	0.000	91	137172	10.0	9.43	
103 Tetrachloroethene	164	9.741	9.741	0.000	98	437721	10.0	10.2	
104 1,3-Dichloropropane	76	9.776	9.776	0.000	88	224563	10.0	9.48	
105 2-Hexanone	43	9.915	9.915	0.000	99	194580	40.0	41.9	
108 Chlorodibromomethane	129	10.124	10.124	0.000	89	297217	10.0	9.82	
109 Ethylene Dibromide	107	10.315	10.315	0.000	99	165802	10.0	10.2	
110 1-Chlorohexane	91	11.099	11.099	0.000	96	291595	5.00	4.94	
111 Chlorobenzene	112	11.134	11.134	0.000	95	675030	10.0	9.95	
112 1,1,1,2-Tetrachloroethane	131	11.255	11.255	0.000	94	345593	10.0	9.18	
113 Ethylbenzene	106	11.308	11.308	0.000	98	378964	10.0	10.0	
114 m-Xylene & p-Xylene	106	11.482	11.482	0.000	99	508386	10.0	10.2	
115 o-Xylene	106	12.056	12.056	0.000	96	424986	10.0	9.90	
116 Styrene	104	12.074	12.074	0.000	94	633791	10.0	10.1	
117 Bromoform	173	12.335	12.335	0.000	97	154067	10.0	10.3	
118 Isopropylbenzene	105	12.544	12.544	0.000	96	1491668	10.0	9.92	
120 Cyclohexanone	55	12.683	12.683	0.000	92	76158	400.0	389.4	
122 Bromobenzene	156	12.927	12.927	0.000	95	335427	10.0	10.0	
121 1,1,2,2-Tetrachloroethane	83	12.927	12.927	0.000	94	175598	10.0	9.41	
123 1,2,3-Trichloropropane	110	12.979	12.979	0.000	79	41180	10.0	9.21	
124 trans-1,4-Dichloro-2-buten	53	13.014	13.014	0.000	72	36553	10.0	9.92	
125 N-Propylbenzene	120	13.066	13.066	0.000	99	377639	10.0	9.88	
126 2-Chlorotoluene	126	13.171	13.171	0.000	97	290655	10.0	9.80	
127 1,3,5-Trimethylbenzene	105	13.275	13.275	0.000	95	1091502	10.0	9.68	
128 4-Chlorotoluene	126	13.292	13.292	0.000	99	341408	10.0	9.96	
129 tert-Butylbenzene	119	13.658	13.658	0.000	93	1259928	10.0	9.78	
130 1,2,4-Trimethylbenzene	105	13.710	13.710	0.000	97	1018870	10.0	9.77	
131 sec-Butylbenzene	134	13.902	13.902	0.000	94	376023	10.0	9.90	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.024	14.024	0.000	97	576134	10.0	9.98	
133 4-Isopropyltoluene	119	14.058	14.058	0.000	97	1460300	10.0	9.88	
134 1,4-Dichlorobenzene	146	14.111	14.111	0.000	94	710414	10.0	9.66	
137 n-Butylbenzene	91	14.494	14.494	0.000	97	1388403	10.0	9.88	
138 1,2-Dichlorobenzene	146	14.511	14.511	0.000	97	477656	10.0	9.64	
139 1,2-Dibromo-3-Chloropropan	157	15.294	15.294	0.000	90	33975	10.0	10.0	
141 1,2,4-Trichlorobenzene	180	16.061	16.061	0.000	95	336850	10.0	10.3	
142 Hexachlorobutadiene	225	16.200	16.200	0.000	97	486797	10.0	10.2	
143 Naphthalene	128	16.287	16.287	0.000	97	266576	10.0	10.3	
144 1,2,3-Trichlorobenzene	180	16.513	16.513	0.000	96	235306	10.0	10.5	
S 151 1,2-Dichloroethene, Total	96				0		20.0	19.8	
S 149 1,2-Dichloroethene, Total	1				0		20.0	19.8	
S 150 Xylenes, Total	106				0		20.0	20.1	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.8	
S 145 Trihalomethanes, Total	1				0		40.0	39.3	
S 146 Xylenes, Total (URS)	1				0		20.0	20.1	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	5.00	Units: uL
MV-Gas/Ket A_00045	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	5.00	Units: uL

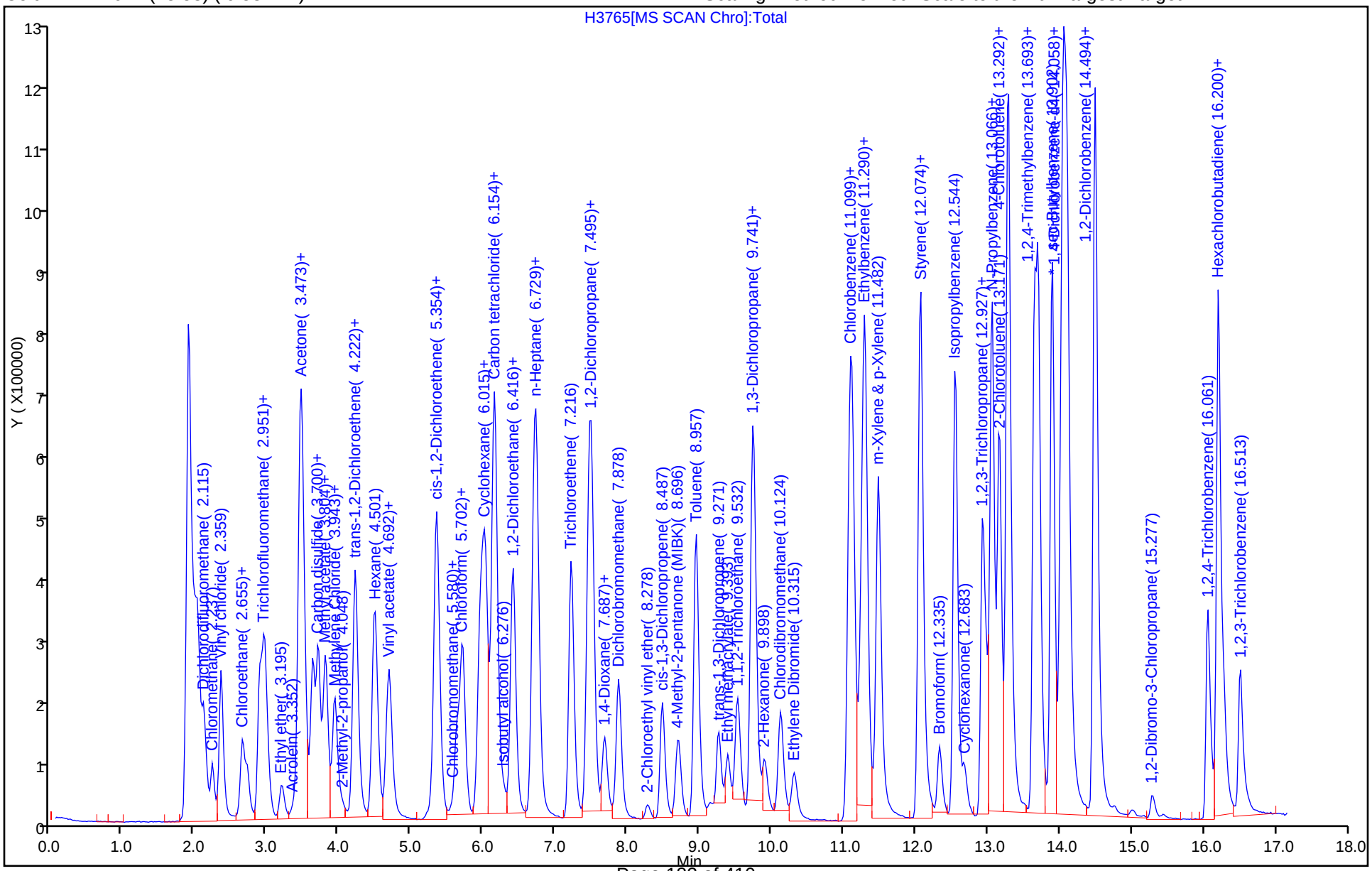
Report Date: 19-Apr-2016 09:18:48 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3765.D

Injection Date:	19-Apr-2016 00:23:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	14
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: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3766.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-Apr-2016 00:46:30 ALS Bottle#: 8 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:18:56 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 01:40:41

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	3.978	3.961	0.017	95	83269	250.0	250.0	
* 2 Fluorobenzene	96	6.746	6.746	0.000	98	811752	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.081	11.081	0.000	90	177137	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.093	0.000	94	306925	12.5	12.5	
28 Dichlorodifluoromethane	85	2.133	2.115	0.018	100	1249858	30.0	33.1	
30 Chloromethane	50	2.255	2.237	0.018	98	534887	30.0	30.5	
32 Vinyl chloride	62	2.359	2.359	0.000	98	660500	30.0	31.0	
35 Bromomethane	94	2.673	2.655	0.018	90	629503	30.0	29.7	
36 Chloroethane	64	2.725	2.725	0.000	99	413274	30.0	30.3	
37 Dichlorofluoromethane	67	2.899	2.899	0.000	98	1722604	30.0	29.8	
38 Trichlorofluoromethane	101	2.969	2.969	0.001	100	1868730	30.0	31.0	
40 Ethyl ether	59	3.212	3.212	0.000	93	248978	30.0	29.1	
44 Acrolein	56	3.369	3.352	0.017	99	130656	300.0	256.8	
45 1,1-Dichloroethene	96	3.473	3.456	0.017	99	880691	30.0	29.6	
46 1,1,2-Trichloro-1,2,2-trif	151	3.491	3.491	0.000	95	1458244	30.0	30.2	
47 Acetone	43	3.508	3.491	0.017	99	126216	120.0	112.7	
48 Iodomethane	142	3.648	3.630	0.018	99	2162428	30.0	28.6	
50 Carbon disulfide	76	3.717	3.717	0.000	99	3013659	30.0	29.8	
52 3-Chloro-1-propene	41	3.822	3.804	0.018	93	1163019	30.0	28.4	
53 Methyl acetate	43	3.822	3.822	0.000	97	617943	150.0	151.6	
54 Methylene Chloride	84	3.943	3.943	0.000	92	573778	30.0	29.5	
55 2-Methyl-2-propanol	59	4.065	4.048	0.017	96	138810	300.0	293.3	
57 Acrylonitrile	53	4.205	4.205	0.000	99	317835	300.0	295.9	
56 Methyl tert-butyl ether	73	4.239	4.222	0.017	94	958765	30.0	28.5	
58 trans-1,2-Dichloroethene	96	4.239	4.222	0.017	100	913375	30.0	30.3	
59 Hexane	57	4.501	4.501	0.000	94	1394673	30.0	30.7	
60 1,1-Dichloroethane	63	4.692	4.675	0.017	96	1484962	30.0	29.2	
61 Vinyl acetate	43	4.709	4.709	0.000	96	1068194	60.0	60.3	
65 cis-1,2-Dichloroethene	96	5.354	5.354	0.000	83	836187	30.0	29.6	
66 2,2-Dichloropropane	77	5.371	5.354	0.017	88	1684177	30.0	28.1	
67 2-Butanone (MEK)	43	5.354	5.354	0.000	33	248960	120.0	127.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.563	5.580	-0.017	96	195551	450.0	440.4	
73 Chlorobromomethane	128	5.650	5.632	0.018	93	337406	30.0	29.9	
74 Tetrahydrofuran	42	5.702	5.702	0.000	92	86609	60.0	55.4	
75 Chloroform	83	5.719	5.719	0.000	93	1558422	30.0	28.9	
76 1,1,1-Trichloroethane	97	5.963	5.963	0.000	98	1866332	30.0	30.2	
77 Cyclohexane	56	6.033	6.033	0.000	89	1551475	30.0	29.2	
78 1,1-Dichloropropene	75	6.154	6.154	0.000	97	1579318	30.0	29.7	
79 Carbon tetrachloride	117	6.172	6.172	0.000	97	1957359	30.0	30.8	
80 Isobutyl alcohol	41	6.276	6.276	0.000	93	138447	750.0	851.7	
81 Benzene	78	6.416	6.416	0.000	96	2538894	30.0	30.0	
82 1,2-Dichloroethane	62	6.433	6.433	0.000	96	512593	30.0	30.0	
84 n-Heptane	43	6.712	6.712	0.000	94	1917450	30.0	30.3	
86 Trichloroethene	95	7.216	7.216	0.000	97	1194739	30.0	28.6	
88 2-Pentanone	43	7.460	7.460	0.000	97	693064	60.0	63.0	
89 Methylcyclohexane	55	7.478	7.478	0.000	92	1444177	30.0	29.8	
90 1,2-Dichloropropane	63	7.512	7.512	0.000	97	754893	30.0	28.6	
92 Dibromomethane	93	7.687	7.687	0.001	94	372370	30.0	29.3	
93 1,4-Dioxane	88	7.721	7.704	0.017	95	40061	600.0	589.6	
94 Dichlorobromomethane	83	7.878	7.878	0.000	100	1288533	30.0	29.6	
96 2-Chloroethyl vinyl ether	63	8.278	8.278	0.000	92	119498	30.0	26.4	
97 cis-1,3-Dichloropropene	75	8.487	8.487	0.000	96	1041546	30.0	30.8	
98 4-Methyl-2-pentanone (MIBK	43	8.696	8.696	0.000	97	887622	120.0	122.0	
99 Toluene	91	8.957	8.957	0.000	99	3130831	30.0	29.8	
100 trans-1,3-Dichloropropene	75	9.271	9.271	0.000	92	712576	30.0	29.7	
101 Ethyl methacrylate	69	9.393	9.393	0.000	90	475971	30.0	30.7	
102 1,1,2-Trichloroethane	97	9.532	9.532	0.000	91	399716	30.0	27.6	
103 Tetrachloroethene	164	9.741	9.741	0.000	98	1311202	30.0	31.2	
104 1,3-Dichloropropane	76	9.776	9.776	0.000	89	683006	30.0	29.4	
105 2-Hexanone	43	9.898	9.915	-0.017	98	575022	120.0	126.3	
108 Chlorodibromomethane	129	10.124	10.124	0.000	90	907284	30.0	30.6	
109 Ethylene Dibromide	107	10.315	10.315	0.000	99	505097	30.0	31.8	
110 1-Chlorohexane	91	11.099	11.099	0.000	97	859403	15.0	14.8	
111 Chlorobenzene	112	11.134	11.134	0.000	93	2029910	30.0	30.5	
112 1,1,1,2-Tetrachloroethane	131	11.255	11.255	0.000	95	1037879	30.0	28.2	
113 Ethylbenzene	106	11.308	11.308	0.000	98	1141052	30.0	30.9	
114 m-Xylene & p-Xylene	106	11.482	11.482	0.000	99	1489801	30.0	30.6	
115 o-Xylene	106	12.056	12.056	0.000	95	1287234	30.0	30.6	
116 Styrene	104	12.074	12.074	0.000	95	1887800	30.0	30.6	
117 Bromoform	173	12.335	12.335	0.000	97	458139	30.0	31.4	
118 Isopropylbenzene	105	12.544	12.544	0.000	96	4374926	30.0	29.9	
120 Cyclohexanone	55	12.683	12.683	0.000	93	230646	1200.0	1203.5	
122 Bromobenzene	156	12.927	12.927	0.000	95	994398	30.0	30.6	
121 1,1,2,2-Tetrachloroethane	83	12.944	12.927	0.017	95	502146	30.0	27.6	
123 1,2,3-Trichloropropane	110	12.979	12.979	0.000	79	122561	30.0	28.2	
124 trans-1,4-Dichloro-2-buten	53	13.014	13.014	0.000	72	108081	30.0	30.1	
125 N-Propylbenzene	120	13.066	13.066	0.000	99	1113143	30.0	29.9	
126 2-Chlorotoluene	126	13.171	13.171	0.000	97	863007	30.0	29.9	
127 1,3,5-Trimethylbenzene	105	13.275	13.275	0.000	94	3256763	30.0	29.7	
128 4-Chlorotoluene	126	13.292	13.292	0.000	99	1016340	30.0	30.5	
129 tert-Butylbenzene	119	13.658	13.658	0.000	92	3688817	30.0	29.4	
130 1,2,4-Trimethylbenzene	105	13.710	13.710	0.000	96	2994464	30.0	29.5	
131 sec-Butylbenzene	134	13.902	13.902	0.000	94	1093604	30.0	29.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.024	14.024	0.000	98	1721382	30.0	30.6	
133 4-Isopropyltoluene	119	14.058	14.058	0.000	97	4282690	30.0	29.8	
134 1,4-Dichlorobenzene	146	14.111	14.111	0.000	96	2085867	30.0	29.1	
137 n-Butylbenzene	91	14.494	14.494	0.000	97	4072746	30.0	29.8	
138 1,2-Dichlorobenzene	146	14.511	14.511	0.000	98	1430029	30.0	29.7	
139 1,2-Dibromo-3-Chloropropan	157	15.295	15.294	0.000	91	98558	30.0	29.8	
141 1,2,4-Trichlorobenzene	180	16.061	16.061	0.000	94	1031885	30.0	32.4	
142 Hexachlorobutadiene	225	16.200	16.200	0.000	97	1401972	30.0	30.3	
143 Naphthalene	128	16.287	16.287	0.000	97	794791	30.0	31.5	
144 1,2,3-Trichlorobenzene	180	16.513	16.513	0.000	96	724447	30.0	33.2	
S 151 1,2-Dichloroethene, Total	96				0		60.0	60.0	
S 149 1,2-Dichloroethene, Total	1				0		60.0	60.0	
S 150 Xylenes, Total	106				0		60.0	61.2	
S 148 1,3-Dichloropropene, Total	1				0		60.0	60.5	
S 145 Trihalomethanes, Total	1				0		120.0	120.5	
S 146 Xylenes, Total (URS)	1				0		60.0	61.2	
S 147 Total BTEX	1				0			151.9	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	15.00	Units: uL
MV-Gas/Ket A_00045	Amount Added:	15.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	15.00	Units: uL

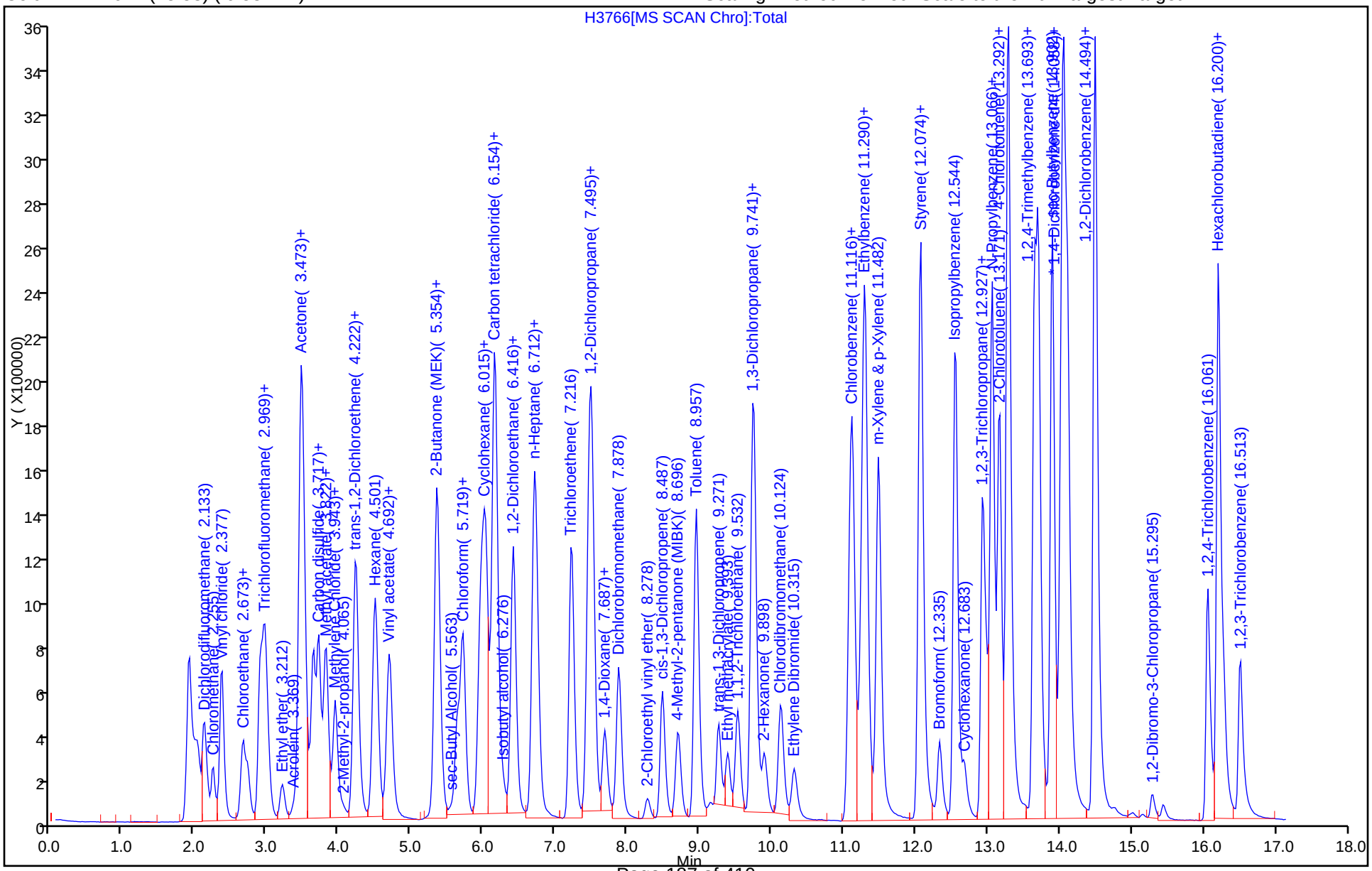
Report Date: 19-Apr-2016 09:18:57 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3766.D

Injection Date:	19-Apr-2016 00:46:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	15
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: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3767.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Apr-2016 01:10:30 ALS Bottle#: 9 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:19:05 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: bergerb Date: 19-Apr-2016 01:39:09

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	3.983	3.961	0.022	94	95581	250.0	250.0	
* 2 Fluorobenzene	96	6.751	6.746	0.005	98	801569	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.086	11.081	0.005	88	181218	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.097	14.093	0.004	93	298673	12.5	12.5	
28 Dichlorodifluoromethane	85	2.137	2.115	0.022	100	2409966	60.0	64.7	
30 Chloromethane	50	2.259	2.237	0.022	98	1037860	60.0	59.9	
32 Vinyl chloride	62	2.363	2.359	0.004	98	1315814	60.0	62.6	
35 Bromomethane	94	2.659	2.655	0.004	91	1146764	60.0	54.7	
36 Chloroethane	64	2.729	2.725	0.004	100	779089	60.0	57.8	
37 Dichlorofluoromethane	67	2.903	2.899	0.004	99	3517747	60.0	61.7	
38 Trichlorofluoromethane	101	2.973	2.969	0.005	100	3832409	60.0	64.4	
40 Ethyl ether	59	3.217	3.212	0.004	93	531324	60.0	63.0	
44 Acrolein	56	3.373	3.352	0.021	98	284252	599.9	565.7	
45 1,1-Dichloroethene	96	3.478	3.456	0.022	98	1770241	60.0	60.2	
46 1,1,2-Trichloro-1,2,2-trif	151	3.495	3.491	0.004	95	2903687	60.0	60.9	
47 Acetone	43	3.512	3.491	0.021	99	287232	240.0	259.7	
48 Iodomethane	142	3.652	3.630	0.022	99	4348988	60.0	58.3	
50 Carbon disulfide	76	3.721	3.717	0.004	99	6084185	60.0	60.8	
52 3-Chloro-1-propene	41	3.826	3.804	0.022	90	2440553	60.0	60.3	
53 Methyl acetate	43	3.826	3.822	0.004	97	1338928	300.0	332.6	
54 Methylene Chloride	84	3.948	3.943	0.005	93	1166294	60.0	61.3	
55 2-Methyl-2-propanol	59	4.070	4.048	0.022	98	305554	600.0	562.4	
57 Acrylonitrile	53	4.209	4.205	0.004	99	701487	600.0	661.4	
56 Methyl tert-butyl ether	73	4.244	4.222	0.022	97	2080548	60.0	62.7	
58 trans-1,2-Dichloroethene	96	4.244	4.222	0.022	100	1848821	60.0	62.1	
59 Hexane	57	4.505	4.501	0.004	95	2844405	60.0	61.2	
60 1,1-Dichloroethane	63	4.696	4.675	0.021	96	3035366	60.0	60.4	
61 Vinyl acetate	43	4.714	4.709	0.005	96	2312021	120.0	132.2	
67 2-Butanone (MEK)	43	5.358	5.354	0.004	34	536110	240.0	278.5	
65 cis-1,2-Dichloroethene	96	5.358	5.354	0.004	84	1691463	60.0	60.7	
66 2,2-Dichloropropane	77	5.375	5.354	0.021	86	3339634	60.0	56.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.567	5.580	-0.013	96	451896	900.0	886.6	
73 Chlorobromomethane	128	5.654	5.632	0.022	93	710376	60.0	63.8	
74 Tetrahydrofuran	42	5.706	5.702	0.004	93	192398	120.0	124.6	
75 Chloroform	83	5.723	5.719	0.004	94	3182914	60.0	59.8	
76 1,1,1-Trichloroethane	97	5.967	5.963	0.004	98	3759020	60.0	61.6	
77 Cyclohexane	56	6.037	6.033	0.004	89	3097655	60.0	59.0	
78 1,1-Dichloropropene	75	6.159	6.154	0.005	97	3151074	60.0	60.1	
79 Carbon tetrachloride	117	6.176	6.172	0.004	97	3890983	60.0	61.9	
80 Isobutyl alcohol	41	6.281	6.276	0.005	93	287199	1500.0	1539.2	
81 Benzene	78	6.420	6.416	0.004	96	5034426	60.0	60.2	
82 1,2-Dichloroethane	62	6.437	6.433	0.004	97	1046894	60.0	62.1	
84 n-Heptane	43	6.716	6.712	0.004	94	3767653	60.0	60.3	
86 Trichloroethene	95	7.221	7.216	0.005	97	2360817	60.0	57.1	
88 2-Pentanone	43	7.464	7.460	0.004	97	1121078	120.0	103.2	
89 Methylcyclohexane	55	7.482	7.478	0.004	92	2855928	60.0	59.7	
90 1,2-Dichloropropane	63	7.517	7.512	0.005	96	1503900	60.0	57.8	
92 Dibromomethane	93	7.691	7.687	0.005	95	763803	60.0	60.8	
93 1,4-Dioxane	88	7.708	7.704	0.004	91	85964	1200.0	1265.7	a
94 Dichlorobromomethane	83	7.882	7.878	0.004	100	2575055	60.0	60.0	
96 2-Chloroethyl vinyl ether	63	8.283	8.278	0.005	93	293468	60.0	61.8	
97 cis-1,3-Dichloropropene	75	8.492	8.487	0.005	97	2090748	60.0	60.3	
98 4-Methyl-2-pentanone (MIBK	43	8.701	8.696	0.005	97	1847566	240.0	257.3	
99 Toluene	91	8.962	8.957	0.005	98	6148534	60.0	59.3	
100 trans-1,3-Dichloropropene	75	9.275	9.271	0.004	92	1456778	60.0	61.6	
101 Ethyl methacrylate	69	9.397	9.393	0.004	89	1000229	60.0	63.0	
102 1,1,2-Trichloroethane	97	9.536	9.532	0.004	91	814939	60.0	56.9	
103 Tetrachloroethene	164	9.745	9.741	0.004	98	2582215	60.0	60.1	
104 1,3-Dichloropropane	76	9.780	9.776	0.004	88	1391057	60.0	58.6	
105 2-Hexanone	43	9.902	9.915	-0.013	98	1210501	240.0	259.8	
108 Chlorodibromomethane	129	10.128	10.124	0.004	90	1835466	60.0	60.5	
109 Ethylene Dibromide	107	10.320	10.315	0.005	98	1034747	60.0	63.6	
110 1-Chlorohexane	91	11.103	11.099	0.004	97	1683028	30.0	28.4	
111 Chlorobenzene	112	11.138	11.134	0.004	93	4025239	60.0	59.2	
112 1,1,1,2-Tetrachloroethane	131	11.277	11.255	0.022	96	2067292	60.0	54.8	
113 Ethylbenzene	106	11.312	11.308	0.004	99	2182622	60.0	57.7	
114 m-Xylene & p-Xylene	106	11.486	11.482	0.004	99	2942290	60.0	59.1	
115 o-Xylene	106	12.061	12.056	0.005	96	2521929	60.0	58.6	
116 Styrene	104	12.078	12.074	0.004	94	3742786	60.0	59.2	
117 Bromoform	173	12.339	12.335	0.004	97	936413	60.0	62.7	
118 Isopropylbenzene	105	12.548	12.544	0.004	96	8409257	60.0	59.1	
120 Cyclohexanone	55	12.687	12.683	0.004	94	464973	2400.0	2371.7	
122 Bromobenzene	156	12.931	12.927	0.004	95	1974339	60.0	62.4	
121 1,1,2,2-Tetrachloroethane	83	12.931	12.927	0.004	95	1018892	60.0	57.6	
123 1,2,3-Trichloropropane	110	12.983	12.979	0.004	78	249619	60.0	59.0	
124 trans-1,4-Dichloro-2-buten	53	13.018	13.014	0.004	73	220465	60.0	63.2	
125 N-Propylbenzene	120	13.070	13.066	0.004	99	2148152	60.0	59.4	
126 2-Chlorotoluene	126	13.175	13.171	0.004	97	1667096	60.0	59.3	
127 1,3,5-Trimethylbenzene	105	13.279	13.275	0.004	94	6231166	60.0	58.3	
128 4-Chlorotoluene	126	13.297	13.292	0.005	99	1886098	60.0	58.1	
129 tert-Butylbenzene	119	13.662	13.658	0.004	93	7031249	60.0	57.6	
130 1,2,4-Trimethylbenzene	105	13.714	13.710	0.004	96	5727956	60.0	58.0	
131 sec-Butylbenzene	134	13.906	13.902	0.004	94	2057629	60.0	57.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.028	14.024	0.004	98	3317636	60.0	60.7	
133 4-Isopropyltoluene	119	14.063	14.058	0.005	97	8030514	60.0	57.4	
134 1,4-Dichlorobenzene	146	14.115	14.111	0.004	96	3936734	60.0	56.5	
137 n-Butylbenzene	91	14.481	14.494	-0.014	98	7613002	60.0	57.2	
138 1,2-Dichlorobenzene	146	14.515	14.511	0.004	98	2776243	60.0	59.2	
139 1,2-Dibromo-3-Chloropropan	157	15.299	15.294	0.005	91	200297	60.0	62.2	
141 1,2,4-Trichlorobenzene	180	16.065	16.061	0.004	94	1876407	60.0	60.6	
142 Hexachlorobutadiene	225	16.204	16.200	0.004	97	2390401	60.0	53.0	
143 Naphthalene	128	16.291	16.287	0.004	96	1540116	60.0	62.7	
144 1,2,3-Trichlorobenzene	180	16.517	16.513	0.004	96	1292994	60.0	60.8	
S 151 1,2-Dichloroethene, Total	96				0		120.0	122.9	
S 149 1,2-Dichloroethene, Total	1				0		120.0	122.9	
S 150 Xylenes, Total	106				0		120.0	117.7	
S 148 1,3-Dichloropropene, Total	1				0		120.0	121.9	
S 145 Trihalomethanes, Total	1				0		240.0	243.0	
S 146 Xylenes, Total (URS)	1				0		120.0	117.7	
S 147 Total BTEX	1				0			294.9	

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main A_00026	Amount Added:	30.00	Units: uL
MV-Gas/Ket A_00045	Amount Added:	30.00	Units: uL
MV-2cleve+AVA_00015	Amount Added:	30.00	Units: uL

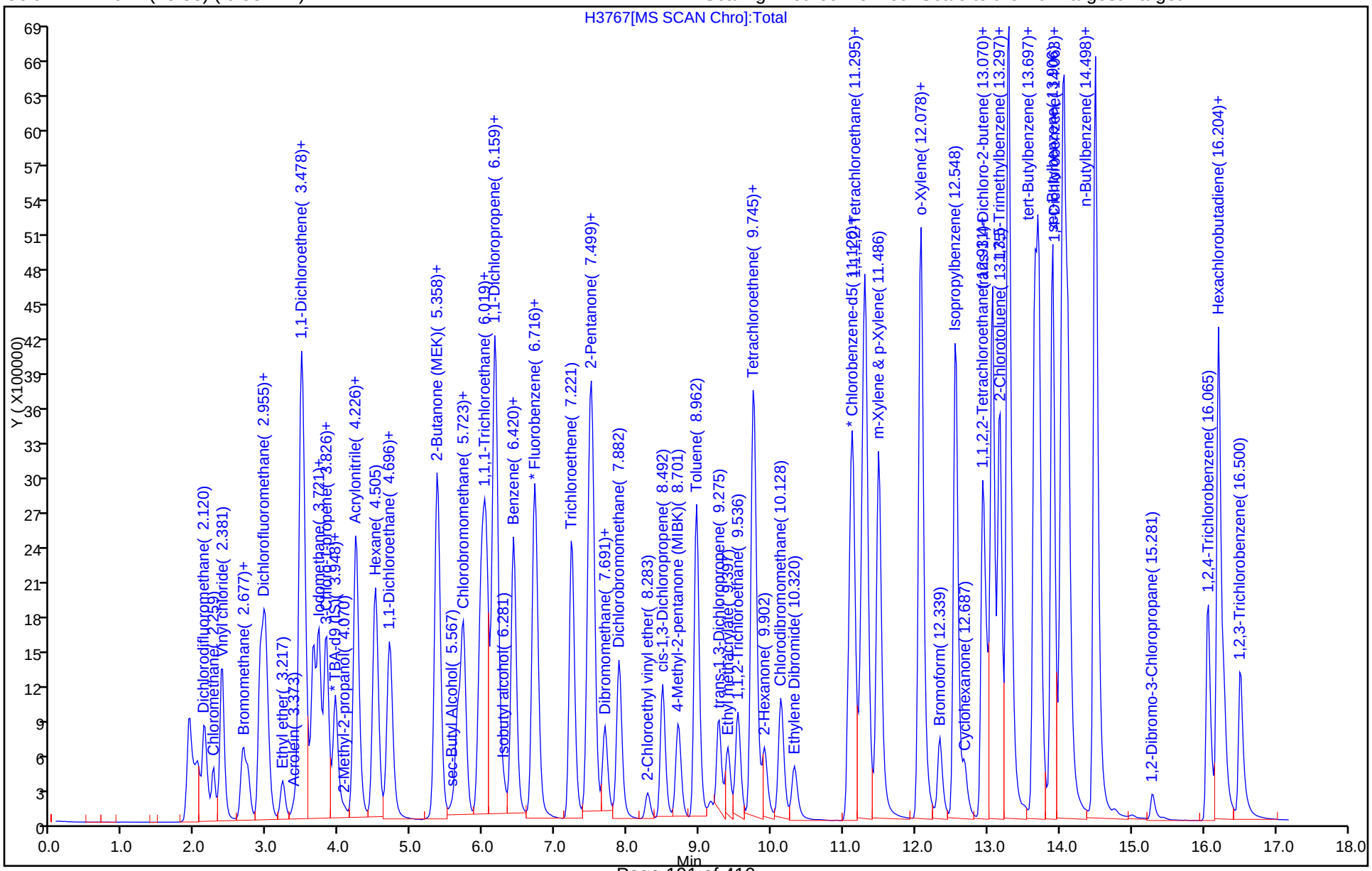
Report Date: 19-Apr-2016 09:19:07 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3767.D

Injection Date:	19-Apr-2016 01:10:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			Worklist Smp#:	16
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



Manual Integration/User Assign Peak Report

TestAmerica Denver

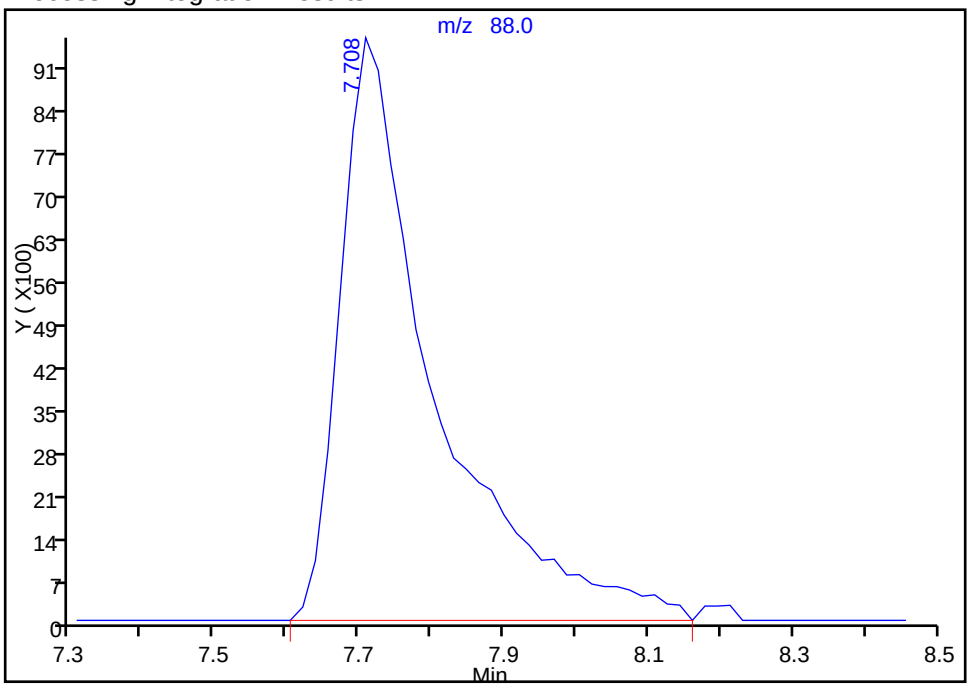
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Injection Date: 19-Apr-2016 01:10:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 9 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

93 1,4-Dioxane, CAS: 123-91-1

Signal: 1

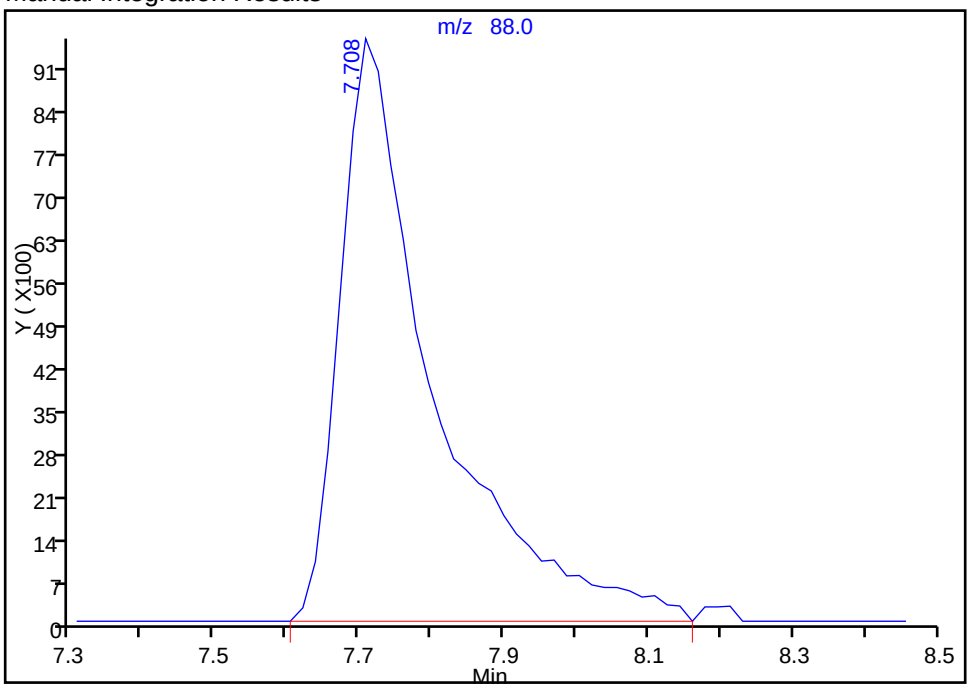
Processing Integration Results

RT: 7.71
Area: 85964
Amount: 1306.9796
Amount Units: ug/l



Manual Integration Results

RT: 7.71
Area: 85964
Amount: 1265.6503
Amount Units: ug/l



Reviewer: bergerb, 19-Apr-2016 01:39:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

TestAmerica Denver

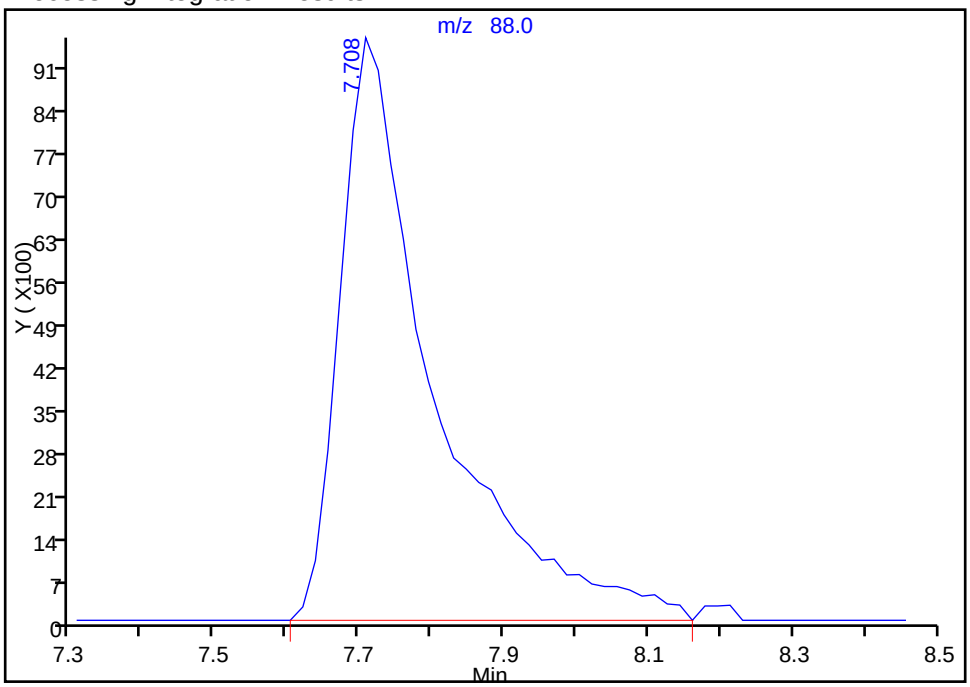
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Injection Date: 19-Apr-2016 01:10:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 9 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

93 1,4-Dioxane, CAS: 123-91-1

Signal: 1

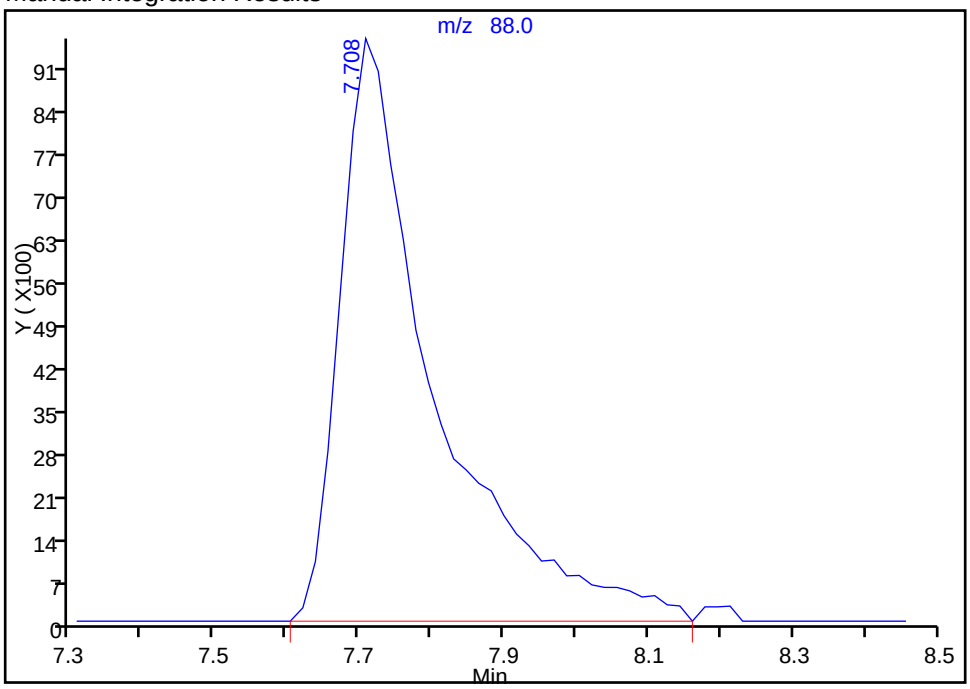
Processing Integration Results

RT: 7.71
Area: 85964
Amount: 1306.9796
Amount Units: ug/l



Manual Integration Results

RT: 7.71
Area: 85964
Amount: 1265.6503
Amount Units: ug/l



Reviewer: seifertj, 19-Apr-2016 07:30:57
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/19/2016 02:20 Calibration End Date: 04/19/2016 04:17 Calibration ID: 25714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-321369/17	H3770.D
Level 2	IC 280-321369/18	H3771.D
Level 3	IC 280-321369/19	H3772.D
Level 4	ICIS 280-321369/20	H3773.D
Level 5	IC 280-321369/21	H3774.D
Level 6	IC 280-321369/22	H3775.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	+++++ 0.0006	0.0010	0.0009	0.0008	0.0007	Lin1	0.0489	0.0006							0.9950		0.9900
Propene oxide	0.0145 0.0147	0.0146	0.0153	0.0153	0.0147	Ave		0.0148				2.5		15.0			
Isopropyl alcohol	0.0065 0.0038	0.0047	0.0044	0.0042	0.0035	Lin2	0.0276	0.0037							0.9930		0.9900
Acetonitrile	+++++ 0.0043	0.0041	0.0040	0.0049	0.0043	Ave		0.0044				9.7		15.0			
Isopropyl ether	0.2936 0.2922	0.2881	0.3073	0.3019	0.2922	Ave		0.2959				2.4		15.0			
Chloroprene	0.6645 0.6829	0.6569	0.6848	0.6735	0.6791	Ave		0.6736				1.6		15.0			
Ethyl tert-Butyl Ether (ETBE)	1.0004 0.8833	0.9288	0.9454	0.9195	0.8778	Ave		0.9258				4.9		15.0			
Ethyl acetate	0.1119 0.1008	0.0941	0.1049	0.0998	0.0982	Ave		0.1016				6.0		15.0			
Propionitrile	0.0057 0.0065	0.0054	0.0067	0.0066	0.0065	Ave		0.0062				8.7		15.0			
Methacrylonitrile	0.0462 0.0501	0.0486	0.0517	0.0515	0.0496	Ave		0.0496				4.1		15.0			
Tert-amyl methyl ether	0.7818 0.7496	0.7576	0.7836	0.7706	0.7497	Ave		0.7655				2.0		15.0			
Methyl methacrylate	0.0433 0.0393	0.0411	0.0441	0.0419	0.0400	Ave		0.0416				4.5		15.0			
2-Nitropropane	0.0257 0.0213	0.0193	0.0209	0.0204	0.0226	Ave		0.0217				10.3		15.0			
cis-1,4-Dichloro-2-butene	0.1360 0.1179	0.1358	0.1225	0.1230	0.1201	Ave		0.1259				6.3		15.0			
Dibromofluoromethane (Surr)	0.5986 0.5940	0.6002	0.6188	0.6100	0.5918	Ave		0.6022				1.7		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/19/2016 02:20 Calibration End Date: 04/19/2016 04:17 Calibration ID: 25714

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								
1,2-Dichloroethane-d4 (Surr)	0.2389 0.2284	0.2380	0.2306	0.2349	0.2293	Ave		0.2333				1.9		15.0			
Toluene-d8 (Surr)	5.8846 5.9300	5.8916	5.9385	6.0482	5.9088	Ave		5.9336				1.0		15.0			
4-Bromofluorobenzene (Surr)	1.9341 1.7340	1.8626	1.8349	1.8418	1.7634	Ave		1.8285				3.9		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/19/2016 02:20 Calibration End Date: 04/19/2016 04:17 Calibration ID: 25714

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-321369/17	H3770.D
Level 2	IC 280-321369/18	H3771.D
Level 3	IC 280-321369/19	H3772.D
Level 4	ICIS 280-321369/20	H3773.D
Level 5	IC 280-321369/21	H3774.D
Level 6	IC 280-321369/22	H3775.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	FB	Lin1	+++++ 135927	6809	15456	27620	73548	+++++ 3000	100	250	500	1500
Propene oxide	FB	Ave	99612 6659690	204687	548065	1099501	3243534	100 6000	200	500	1000	3000
Isopropyl alcohol	FB	Lin2	4498 170911	6580	15733	30125	76300	10.0 600	20.0	50.0	100	300
Acetonitrile	FB	Ave	+++++ 240867	7128	17752	43750	118550	+++++ 750	25.0	62.5	125	375
Isopropyl ether	FB	Ave	25263 1655156	50515	137214	271306	807456	1.25 75.0	2.50	6.25	12.5	37.5
Chloroprene	FB	Ave	45747 3094535	92133	244643	484240	1501413	1.00 60.0	2.00	5.00	10.0	30.0
Ethyl tert-Butyl Ether (ETBE)	FB	Ave	86088 5003273	162838	422166	826312	2426026	1.25 75.0	2.50	6.25	12.5	37.5
Ethyl acetate	FB	Ave	15412 913835	26403	74918	143540	434394	2.00 120	4.00	10.0	20.0	60.0
Propionitrile	FB	Ave	4945 367383	9382	29840	59142	178569	12.5 750	25.0	62.5	125	375
Methacrylonitrile	FB	Ave	31816 2271247	68164	184744	370266	1097439	10.0 600	20.0	50.0	100	300
Tert-amyl methyl ether	FB	Ave	67277 4246441	132819	349923	692570	2071787	1.25 75.0	2.50	6.25	12.5	37.5
Methyl methacrylate	FB	Ave	5966 356305	11543	31492	60261	176794	2.00 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Ave	3535 192836	5411	14901	29273	99983	2.00 120	4.00	10.0	20.0	60.0
cis-1,4-Dichloro-2-butene	DCB	Ave	7051 411328	14336	33749	66600	202120	2.00 120	4.00	10.0	20.0	60.0
Dibromofluoromethane (Surr)	FB	Ave	41211 2691776	84184	221070	438588	1308421	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	16447 1035219	33376	82386	168870	506889	1.00 60.0	2.00	5.00	10.0	30.0

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321369

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/19/2016 02:20 Calibration End Date: 04/19/2016 04:17 Calibration ID: 25714

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
Toluene-d8 (Surr)	CBZ	Ave	95016 6191074	194081	503840	1020015	3057503	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	50152 3025138	98287	252735	498524	1484084	1.00 60.0	2.00	5.00	10.0	30.0

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: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3770.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Apr-2016 02:20:30 ALS Bottle#: 12 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:19:16 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:13:52

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	3.977	3.961	0.016	97	96776	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.746	-0.001	99	860563	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.081	-0.001	86	201832	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.092	14.093	-0.001	94	324134	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.927	5.915	0.012	93	41211	1.00	0.99	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.344	6.333	0.011	99	16447	1.00	1.02	
$ 10 Toluene-d8 (Surr)	98	8.869	8.857	0.012	93	95016	1.00	0.99	
$ 11 4-Bromofluorobenzene (Surr	95	12.751	12.739	0.012	90	50152	1.00	1.06	
34 Ethylene oxide	43	2.619	2.624	-0.005	99	8893	40.0	41.6	
39 Ethanol	45		3.147				ND	ND	
43 Propene oxide	58	3.298	3.303	-0.005	96	99612	100.0	97.5	
49 Isopropyl alcohol	45	3.629	3.634	-0.006	56	4498	10.0	10.3	
51 Acetonitrile	41	3.803	3.808	-0.005	92	4309	12.5	14.6	
62 Isopropyl ether	87	4.743	4.731	0.012	97	25263	1.25	1.24	
63 2-Chloro-1,3-butadiene	53	4.778	4.783	-0.005	89	45747	1.00	0.9865	
64 Tert-butyl ethyl ether	59	5.161	5.149	0.012	97	86088	1.25	1.35	
69 Ethyl acetate	43	5.422	5.410	0.012	98	15412	2.00	2.20	
70 Propionitrile	54	5.457	5.445	0.011	89	4945	12.5	11.6	
72 Methacrylonitrile	41	5.631	5.619	0.012	93	31816	10.0	9.31	
83 Tert-amyl methyl ether	73	6.536	6.542	-0.006	98	67277	1.25	1.28	
85 n-Butanol	56		7.133				ND	ND	
91 Methyl methacrylate	100	7.650	7.656	-0.006	92	5966	2.00	2.08	
95 2-Nitropropane	41	8.190	8.178	0.012	93	3535	2.00	2.37	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.647	12.635	0.012	78	7051	2.00	2.16	
135 1,2,3-Trimethylbenzene	105	14.161	14.167	-0.006	98	97157	1.00	1.01	
140 1,3,5-Trichlorobenzene	180	15.484	15.490	-0.006	98	53079	1.00	0.9716	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	0.50	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.08	Units: uL

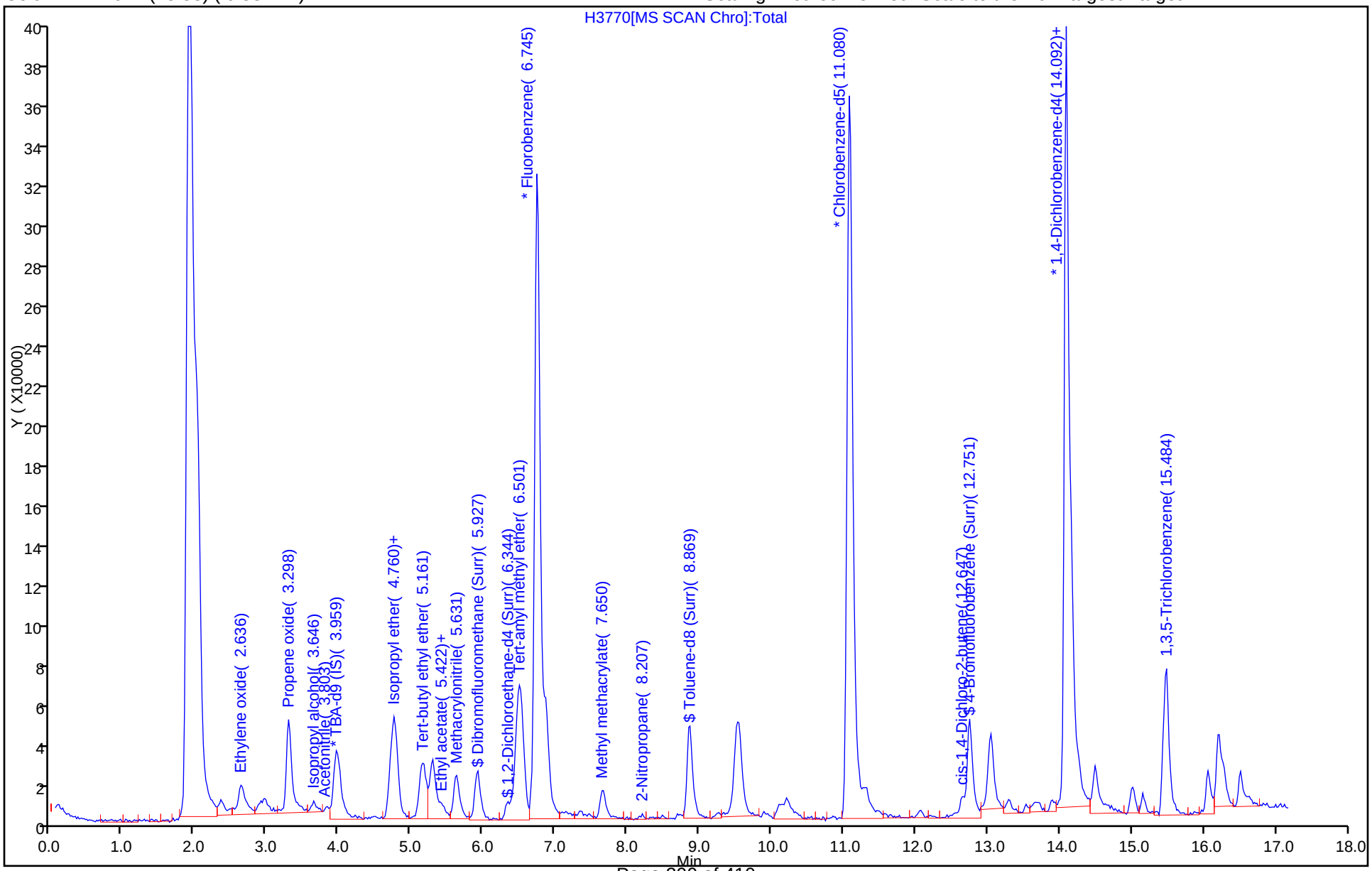
Report Date: 19-Apr-2016 09:19:17 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3770.D

Injection Date:	19-Apr-2016 02:20:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			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
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3771.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Apr-2016 02:44:30 ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:19:26 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:14:22

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	3.977	3.961	0.016	97	94298	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.746	-0.001	99	876598	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.081	-0.001	89	205888	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.092	14.093	-0.001	95	329798	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.909	5.915	-0.006	93	84184	2.00	1.99	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.345	6.333	0.012	98	33376	2.00	2.04	
$ 10 Toluene-d8 (Surr)	98	8.869	8.857	0.012	93	194081	2.00	1.99	
$ 11 4-Bromofluorobenzene (Surr	95	12.751	12.739	0.012	90	98287	2.00	2.04	
34 Ethylene oxide	43	2.636	2.624	0.012	100	17794	80.0	81.6	
39 Ethanol	45	3.141	3.147	-0.006	64	6809	100.0	79.3	a
43 Propene oxide	58	3.298	3.303	-0.005	96	204687	200.0	196.6	
49 Isopropyl alcohol	45	3.646	3.634	0.012	70	6580	20.0	18.1	
51 Acetonitrile	41	3.803	3.808	-0.005	89	7128	25.0	23.0	
62 Isopropyl ether	87	4.743	4.731	0.012	97	50515	2.50	2.43	
63 2-Chloro-1,3-butadiene	53	4.795	4.783	0.012	89	92133	2.00	1.95	
64 Tert-butyl ethyl ether	59	5.161	5.149	0.012	98	162838	2.50	2.51	
69 Ethyl acetate	43	5.422	5.410	0.012	99	26403	4.00	3.70	
70 Propionitrile	54	5.457	5.445	0.012	48	9382	25.0	21.5	
72 Methacrylonitrile	41	5.631	5.619	0.012	94	68164	20.0	19.6	
83 Tert-amyl methyl ether	73	6.536	6.542	-0.006	98	132819	2.50	2.47	
85 n-Butanol	56	7.163	7.133	0.030	93	6316	50.0	45.9	
91 Methyl methacrylate	100	7.668	7.656	0.012	94	11543	4.00	3.95	
95 2-Nitropropane	41	8.190	8.178	0.012	98	5411	4.00	3.56	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.647	12.635	0.012	92	14336	4.00	4.32	
135 1,2,3-Trimethylbenzene	105	14.162	14.167	-0.005	98	190289	2.00	1.95	
140 1,3,5-Trichlorobenzene	180	15.485	15.490	-0.005	98	108401	2.00	1.95	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

a - User Assigned ID

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.16	Units: uL

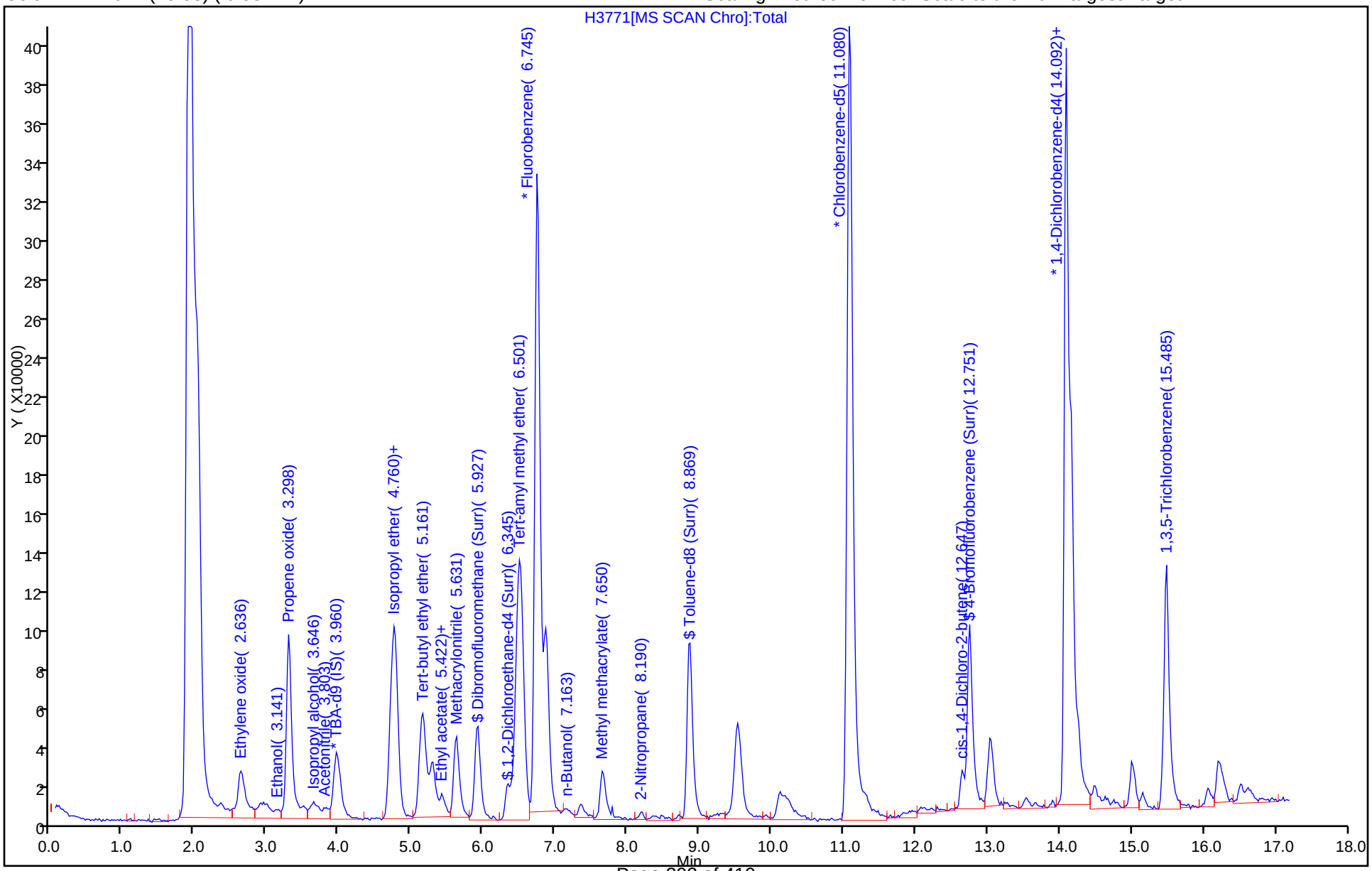
Report Date: 19-Apr-2016 09:19:29 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3771.D

Injection Date:	19-Apr-2016 02:44:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			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



Manual Integration/User Assign Peak Report

TestAmerica Denver

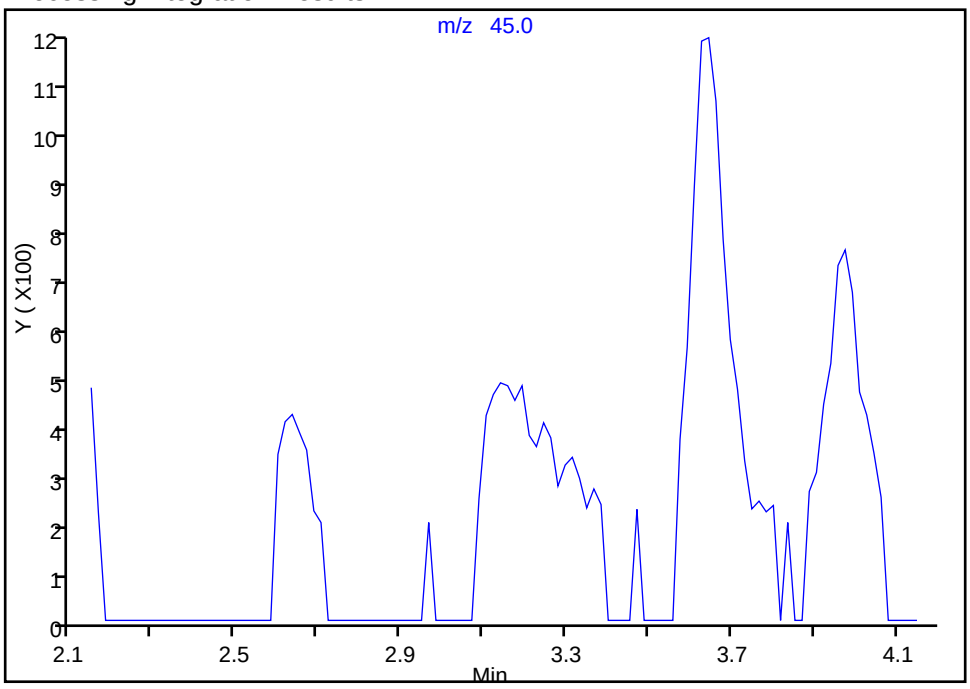
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Injection Date: 19-Apr-2016 02:44:30 Instrument ID: VMS_H
Lims ID: IC
Client ID:
Operator ID: bergerb ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: AQ_VMSH_8260 Limit Group: MSV - 8260B Water and Solid
Column: DB-624 (75.53) (0.53 mm) Detector MS SCAN

39 Ethanol, CAS: 64-17-5

Signal: 1

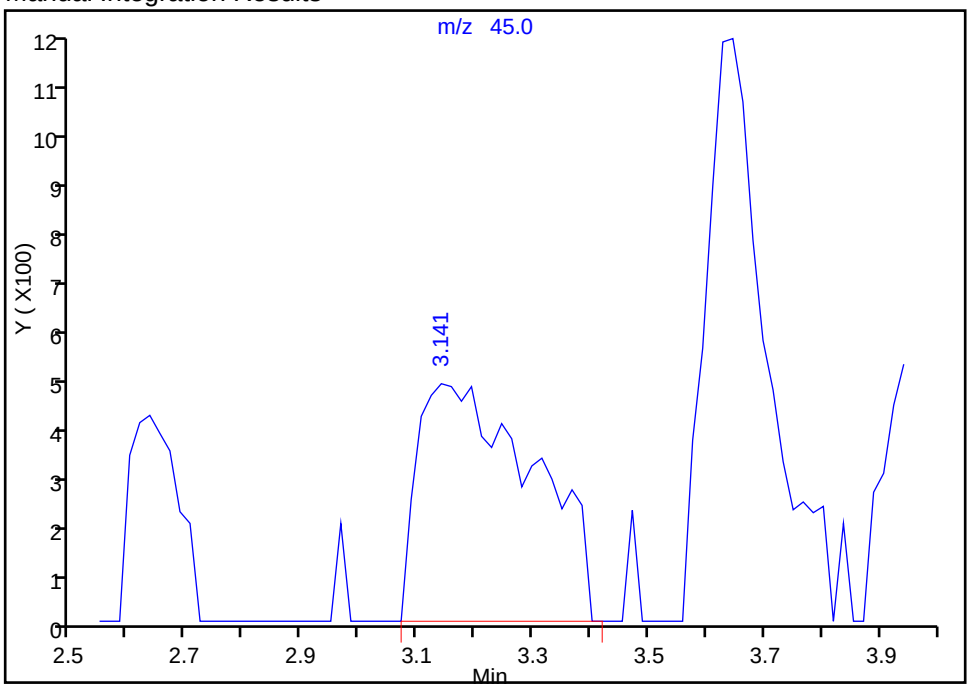
Not Detected
Expected RT: 3.15

Processing Integration Results



Manual Integration Results

RT: 3.14
Area: 6809
Amount: 79.269421
Amount Units: ug/l



Reviewer: seifertj, 19-Apr-2016 07:31:24
Audit Action: Assigned Compound ID Audit Reason: Assign Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3772.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Apr-2016 03:07:30 ALS Bottle#: 14 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:19:40 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:14:58

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	3.984	3.961	0.023	96	100244	250.0	250.0	
* 2 Fluorobenzene	96	6.752	6.746	0.006	99	893121	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.087	11.081	0.006	87	212106	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.099	14.093	0.006	94	344345	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.916	5.915	0.001	93	221070	5.00	5.14	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.334	6.333	0.001	100	82386	5.00	4.94	
$ 10 Toluene-d8 (Surr)	98	8.858	8.857	0.001	93	503840	5.00	5.00	
$ 11 4-Bromofluorobenzene (Surr	95	12.741	12.739	0.002	90	252735	5.00	5.02	
34 Ethylene oxide	43	2.626	2.624	0.002	99	45276	200.0	203.8	
39 Ethanol	45	3.148	3.147	0.001	66	15456	250.0	275.5	
43 Propene oxide	58	3.305	3.303	0.002	96	548065	500.0	516.8	
49 Isopropyl alcohol	45	3.635	3.634	0.001	97	15733	50.0	52.7	
51 Acetonitrile	41	3.810	3.808	0.002	97	17752	62.5	56.3	
62 Isopropyl ether	87	4.732	4.731	0.001	97	137214	6.25	6.49	
63 2-Chloro-1,3-butadiene	53	4.784	4.783	0.001	89	244643	5.00	5.08	
64 Tert-butyl ethyl ether	59	5.150	5.149	0.001	98	422166	6.25	6.38	
69 Ethyl acetate	43	5.411	5.410	0.001	99	74918	10.0	10.3	
70 Propionitrile	54	5.463	5.445	0.018	98	29840	62.5	67.2	
72 Methacrylonitrile	41	5.620	5.619	0.001	94	184744	50.0	52.1	
83 Tert-amyl methyl ether	73	6.543	6.542	0.001	98	349923	6.25	6.40	
85 n-Butanol	56	7.152	7.133	0.019	89	16604	125.0	118.5	
91 Methyl methacrylate	100	7.657	7.656	0.001	94	31492	10.0	10.6	
95 2-Nitropropane	41	8.179	8.178	0.001	93	14901	10.0	9.62	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.654	12.635	0.019	92	33749	10.0	9.73	
135 1,2,3-Trimethylbenzene	105	14.168	14.167	0.001	98	512858	5.00	5.04	
140 1,3,5-Trichlorobenzene	180	15.491	15.490	0.001	98	294030	5.00	5.07	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	2.50	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.40	Units: uL

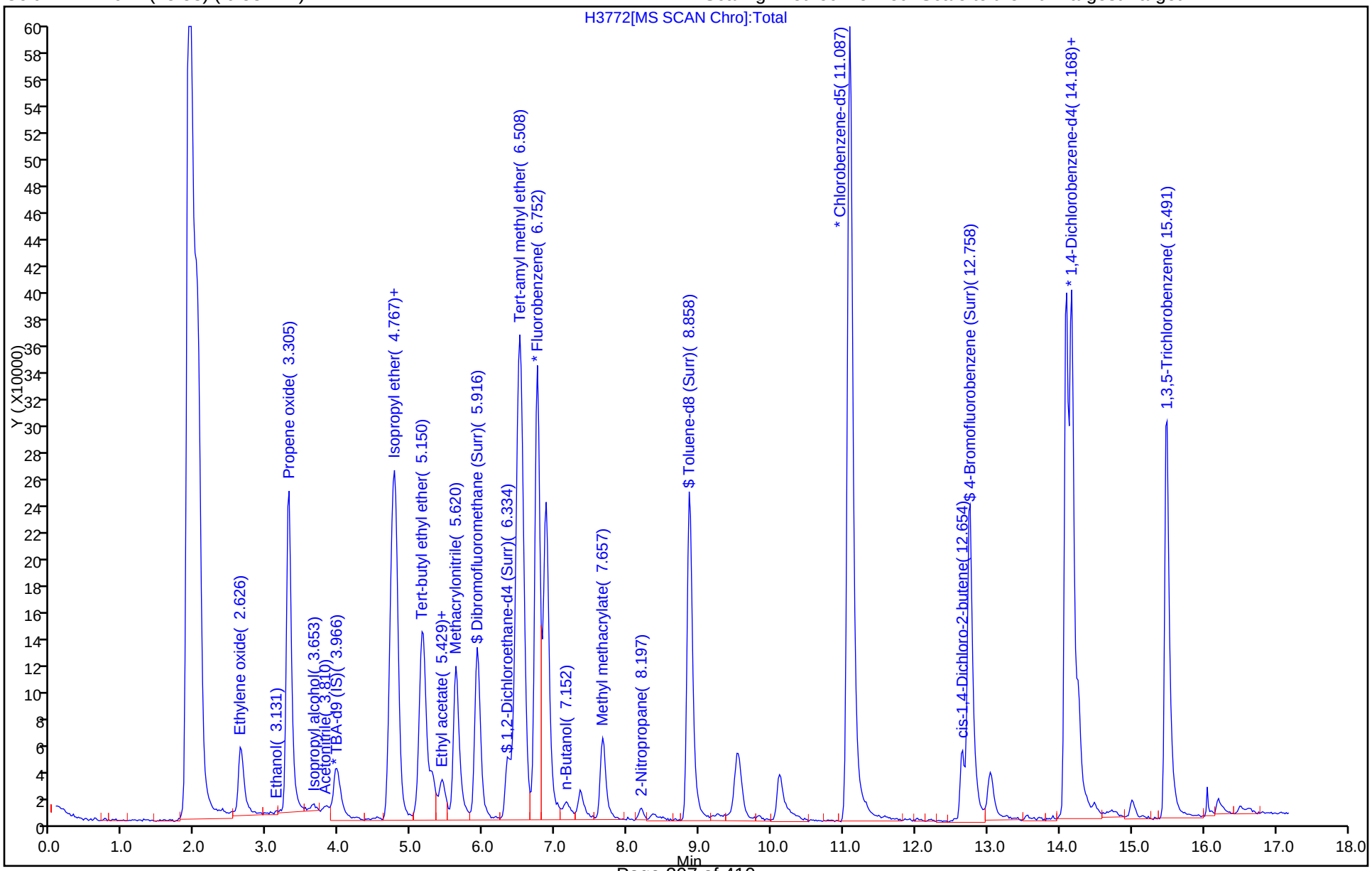
Report Date: 19-Apr-2016 09:19:42 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3772.D

Injection Date:	19-Apr-2016 03:07:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			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
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3773.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 19-Apr-2016 03:31:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:19:53 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:15:28

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	3.965	3.965	0.000	97	97321	250.0	250.0	
* 2 Fluorobenzene	96	6.750	6.750	0.000	99	898700	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.085	11.085	0.000	88	210809	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.097	14.097	0.000	95	338339	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.915	5.915	0.000	94	438588	10.0	10.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.333	6.333	0.000	100	168870	10.0	10.1	
$ 10 Toluene-d8 (Surr)	98	8.857	8.857	0.000	93	1020015	10.0	10.2	
$ 11 4-Bromofluorobenzene (Surr	95	12.739	12.739	0.000	90	498524	10.0	10.1	
34 Ethylene oxide	43	2.624	2.624	0.000	99	90042	400.0	402.9	
39 Ethanol	45	3.147	3.147	0.000	93	27620	500.0	551.7	
43 Propene oxide	58	3.303	3.303	0.000	96	1099501	1000.0	1030.2	
49 Isopropyl alcohol	45	3.634	3.634	0.000	97	30125	100.0	107.1	
51 Acetonitrile	41	3.808	3.808	0.000	99	43750	125.0	138.0	
62 Isopropyl ether	87	4.731	4.731	0.000	97	271306	12.5	12.8	
63 2-Chloro-1,3-butadiene	53	4.783	4.783	0.000	89	484240	10.0	10.0	
64 Tert-butyl ethyl ether	59	5.149	5.149	0.000	98	826312	12.5	12.4	
69 Ethyl acetate	43	5.410	5.410	0.000	99	143540	20.0	19.6	
70 Propionitrile	54	5.445	5.445	0.000	98	59142	125.0	132.3	
72 Methacrylonitrile	41	5.619	5.619	0.000	94	370266	100.0	103.8	
83 Tert-amyl methyl ether	73	6.542	6.542	0.000	98	692570	12.5	12.6	
85 n-Butanol	56	7.133	7.133	0.000	87	34418	250.0	244.2	
91 Methyl methacrylate	100	7.656	7.656	0.000	95	60261	20.0	20.1	
95 2-Nitropropane	41	8.178	8.178	0.000	96	29273	20.0	18.8	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.635	12.635	0.000	91	66600	20.0	19.5	
135 1,2,3-Trimethylbenzene	105	14.167	14.167	0.000	98	1021027	10.0	10.2	
140 1,3,5-Trichlorobenzene	180	15.490	15.490	0.000	98	580602	10.0	10.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL

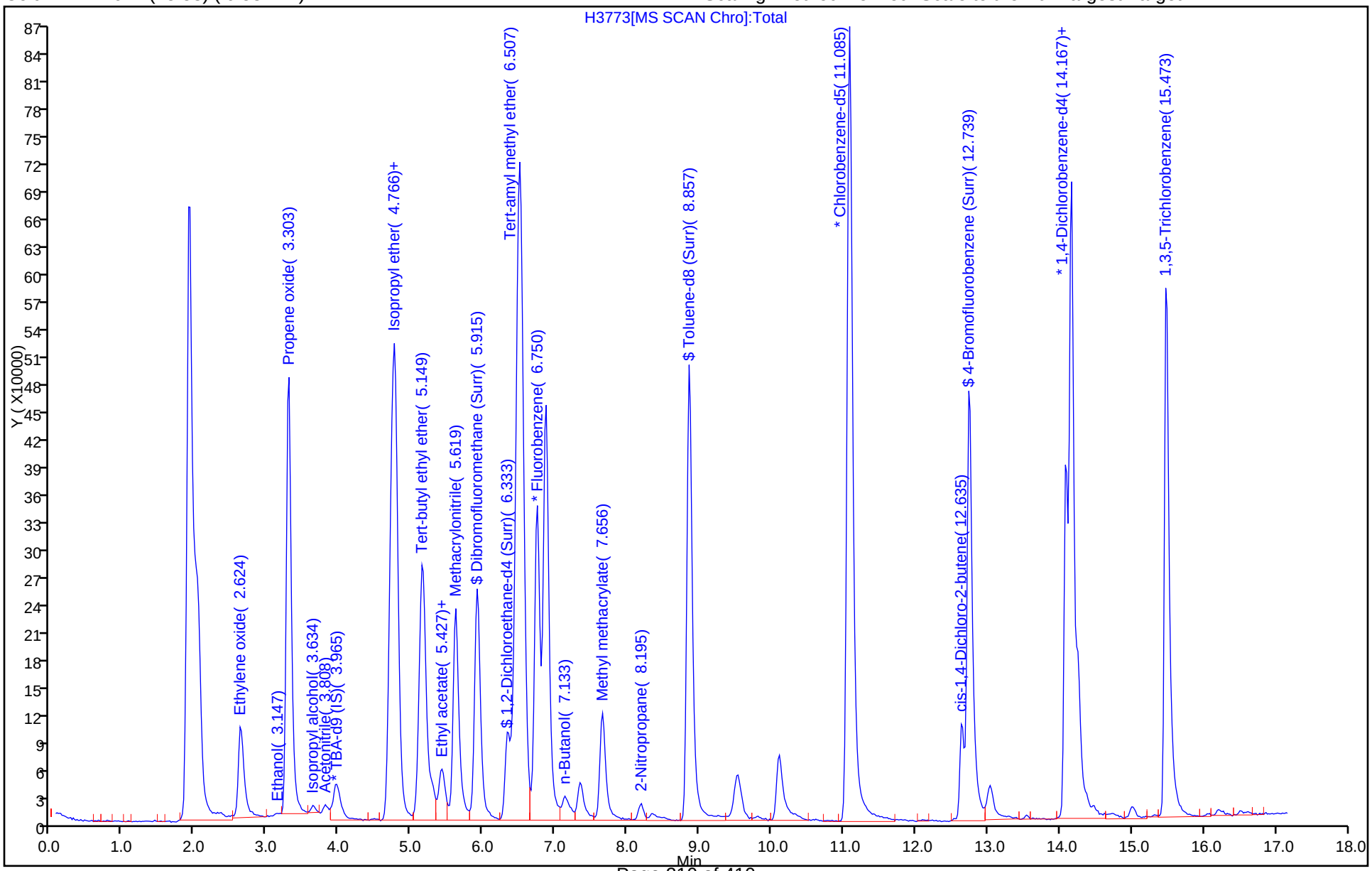
Report Date: 19-Apr-2016 09:19:55 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3773.D

Injection Date:	19-Apr-2016 03:31:30	Instrument ID:	VMS_H	Operator ID:	bergerb
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
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3774.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-Apr-2016 03:54:30 ALS Bottle#: 16 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:20:05 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:15:54

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	3.961	3.965	-0.004	96	87246	250.0	250.0	
* 2 Fluorobenzene	96	6.747	6.750	-0.003	99	921209	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.082	11.085	-0.003	88	215605	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.097	-0.004	95	350678	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.911	5.915	-0.004	93	1308421	30.0	29.5	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.329	6.333	-0.004	99	506889	30.0	29.5	
$ 10 Toluene-d8 (Surr)	98	8.853	8.857	-0.004	93	3057503	30.0	29.9	
$ 11 4-Bromofluorobenzene (Surr	95	12.753	12.739	0.014	90	1484084	30.0	28.9	
34 Ethylene oxide	43	2.620	2.624	-0.004	99	266127	1200.0	1161.6	
39 Ethanol	45	3.125	3.147	-0.022	96	73548	1500.0	1562.0	
43 Propene oxide	58	3.299	3.303	-0.004	96	3243534	3000.0	2965.0	
49 Isopropyl alcohol	45	3.630	3.634	-0.004	100	76300	300.0	275.7	
51 Acetonitrile	41	3.804	3.808	-0.004	100	118550	375.0	364.8	
62 Isopropyl ether	87	4.744	4.731	0.013	98	807456	37.5	37.0	
63 2-Chloro-1,3-butadiene	53	4.779	4.783	-0.004	89	1501413	30.0	30.2	
64 Tert-butyl ethyl ether	59	5.162	5.149	0.013	98	2426026	37.5	35.6	
69 Ethyl acetate	43	5.406	5.410	-0.004	99	434394	60.0	58.0	
70 Propionitrile	54	5.441	5.445	-0.004	99	178569	375.0	389.7	
72 Methacrylonitrile	41	5.615	5.619	-0.004	94	1097439	300.0	300.0	
83 Tert-amyl methyl ether	73	6.538	6.542	-0.004	98	2071787	37.5	36.7	
85 n-Butanol	56	7.130	7.133	-0.003	89	114381	750.0	791.7	
91 Methyl methacrylate	100	7.652	7.656	-0.004	94	176794	60.0	57.6	
95 2-Nitropropane	41	8.192	8.178	0.014	96	99983	60.0	62.6	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.631	12.635	-0.004	91	202120	60.0	57.2	
135 1,2,3-Trimethylbenzene	105	14.163	14.167	-0.004	99	3104138	30.0	29.9	
140 1,3,5-Trichlorobenzene	180	15.486	15.490	-0.004	98	1803112	30.0	30.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	15.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	2.40	Units: uL

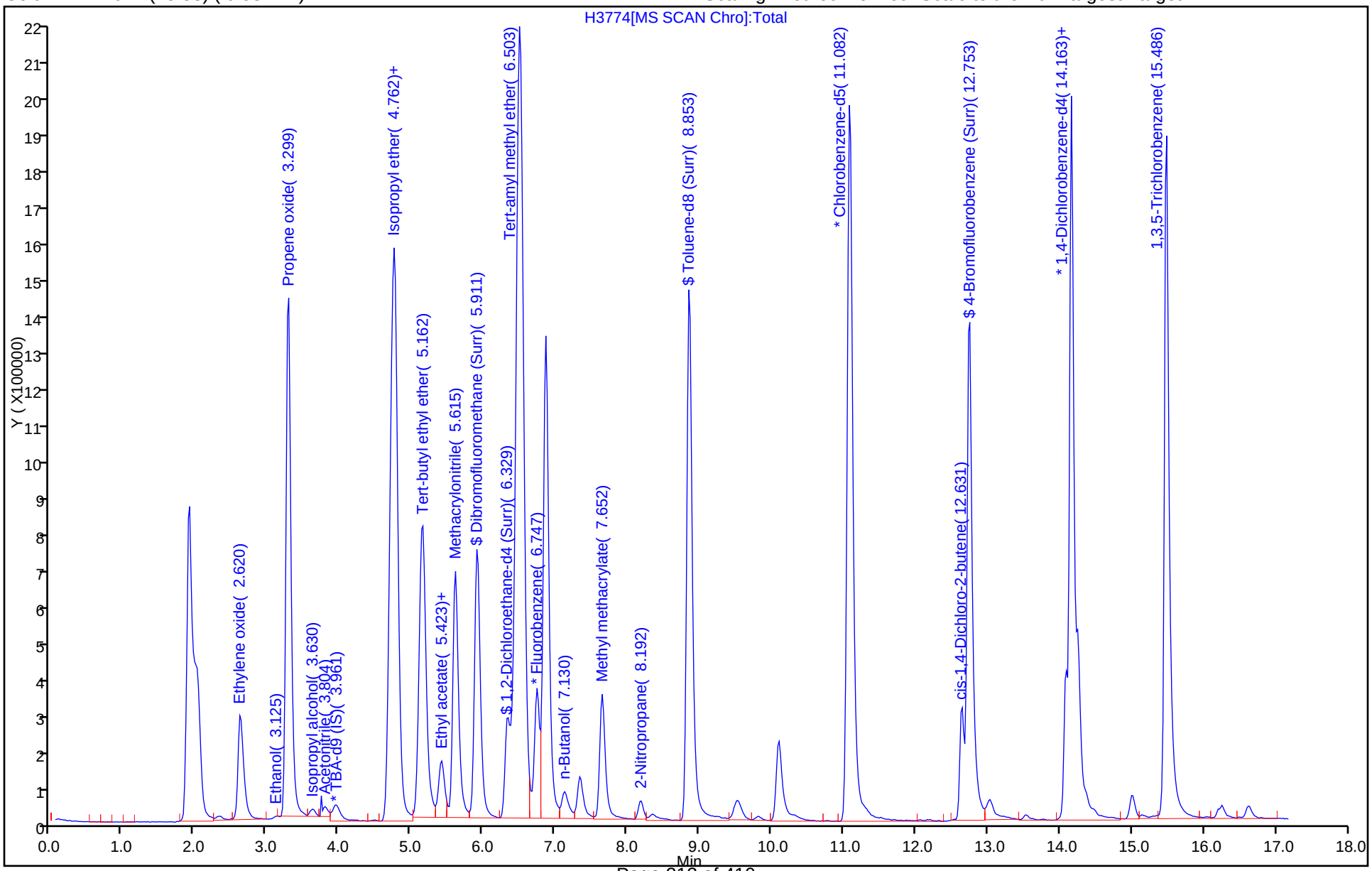
Report Date: 19-Apr-2016 09:20:07 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3774.D

Injection Date:	19-Apr-2016 03:54:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			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
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-Apr-2016 04:17:30 ALS Bottle#: 17 Worklist Smp#: 22
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Operator ID: bergerb Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:20:15 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:16:23

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	3.976	3.965	0.011	96	101668	250.0	250.0	
* 2 Fluorobenzene	96	6.744	6.750	-0.006	99	944095	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.079	11.085	-0.006	89	217505	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.091	14.097	-0.006	95	363466	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.909	5.915	-0.006	94	2691776	60.0	59.2	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.327	6.333	-0.006	100	1035219	60.0	58.7	
$ 10 Toluene-d8 (Surr)	98	8.851	8.857	-0.006	93	6191074	60.0	60.0	
$ 11 4-Bromofluorobenzene (Surr	95	12.751	12.739	0.012	90	3025138	60.0	56.9	
34 Ethylene oxide	43	2.618	2.624	-0.006	99	533513	2400.0	2272.2	
39 Ethanol	45	3.141	3.147	-0.006	96	135927	3000.0	2881.5	
43 Propene oxide	58	3.297	3.303	-0.006	96	6659690	6000.0	5940.2	
49 Isopropyl alcohol	45	3.628	3.634	-0.006	100	170911	600.0	611.5	
51 Acetonitrile	41	3.802	3.808	-0.006	100	240867	750.0	723.2	
62 Isopropyl ether	87	4.742	4.731	0.011	97	1655156	75.0	74.1	
63 2-Chloro-1,3-butadiene	53	4.777	4.783	-0.006	91	3094535	60.0	60.8	
64 Tert-butyl ethyl ether	59	5.160	5.149	0.011	98	5003273	75.0	71.5	
69 Ethyl acetate	43	5.404	5.410	-0.006	99	913835	120.0	119.0	
70 Propionitrile	54	5.439	5.445	-0.006	99	367383	750.0	782.3	
72 Methacrylonitrile	41	5.613	5.619	-0.006	94	2271247	600.0	605.9	
83 Tert-amyl methyl ether	73	6.536	6.542	-0.006	98	4246441	75.0	73.4	
85 n-Butanol	56	7.127	7.133	-0.006	89	244353	1500.0	1650.4	
91 Methyl methacrylate	100	7.650	7.656	-0.006	94	356305	120.0	113.3	
95 2-Nitropropane	41	8.189	8.178	0.011	95	192836	120.0	117.8	
107 Tetrahydrothiophene	60		10.111				ND	ND	
119 cis-1,4-Dichloro-2-butene	53	12.646	12.635	0.011	91	411328	120.0	112.4	
135 1,2,3-Trimethylbenzene	105	14.161	14.167	-0.006	99	6340513	60.0	59.0	
140 1,3,5-Trichlorobenzene	180	15.484	15.490	-0.006	98	3694969	60.0	60.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp A_00018	Amount Added:	30.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	4.80	Units: uL

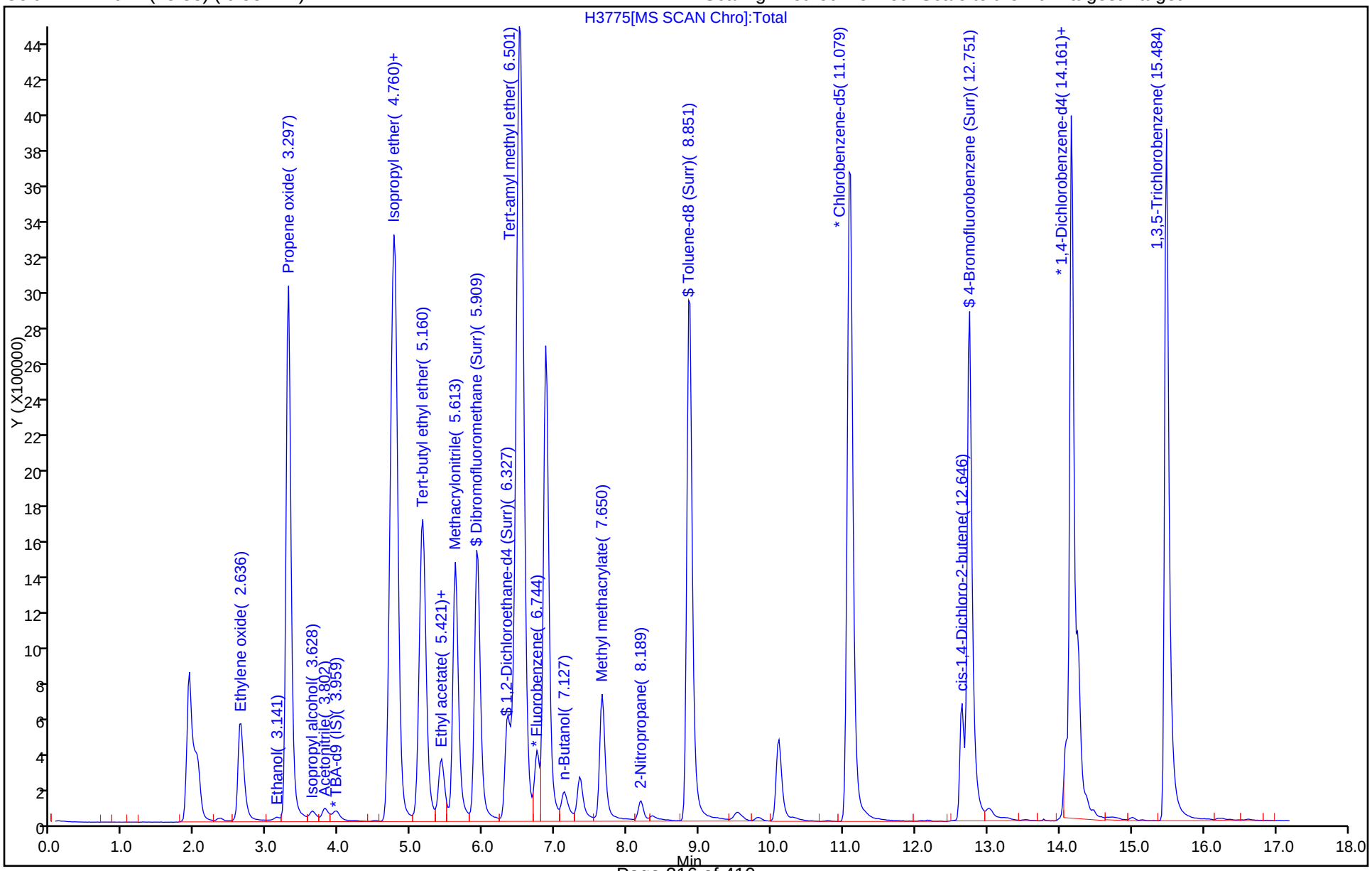
Report Date: 19-Apr-2016 09:20:16 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Injection Date:	19-Apr-2016 04:17:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	IC			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



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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321696

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2016 12:45 Calibration End Date: 04/20/2016 14:43 Calibration ID: 25745

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-321696/10	H3854.D
Level 2	STD02 280-321696/11	H3855.D
Level 3	STD05 280-321696/12	H3856.D
Level 4	STD10 280-321696/13	H3857.D
Level 5	STD30 280-321696/14	H3858.D
Level 6	STD60 280-321696/15	H3859.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								
Dibromofluoromethane (Surr)	0.6306 0.6210	0.6018	0.6341	0.6151	0.5838	Ave		0.6144				3.1		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2451 0.2385	0.2476	0.2442	0.2391	0.2292	Ave		0.2406				2.8		15.0			
Toluene-d8 (Surr)	5.7942 5.7432	5.5809	5.7015	5.5920	5.2875	Ave		5.6165				3.2		15.0			
4-Bromofluorobenzene (Surr)	1.9455 1.8088	1.8662	1.8371	1.7700	1.6785	Ave		1.8177				5.0		15.0			

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

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

Lab Name: TestAmerica Denver Job No.: 280-82226-1 Analy Batch No.: 321696

SDG No.:

Instrument ID: VMS_H GC Column: DB-624 (75. ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/20/2016 12:45 Calibration End Date: 04/20/2016 14:43 Calibration ID: 25745

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD01 280-321696/10	H3854.D
Level 2	STD02 280-321696/11	H3855.D
Level 3	STD05 280-321696/12	H3856.D
Level 4	STD10 280-321696/13	H3857.D
Level 5	STD30 280-321696/14	H3858.D
Level 6	STD60 280-321696/15	H3859.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
Dibromofluoromethane (Surr)	FB	Ave	46954 2794364	87079	233940	458515	1216018	1.00 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	18252 1073145	35835	90112	178200	477537	1.00 60.0	2.00	5.00	10.0	30.0
Toluene-d8 (Surr)	CBZ	Ave	106642 6332360	203519	515004	1042047	2753927	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	55193 3057288	103058	256136	507458	1330518	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:
Ave = Average ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3854.D
Lims ID: std01
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 20-Apr-2016 12:45:30 ALS Bottle#: 6 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*sub64

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-Apr-2016 21:46:18 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: wickhamt Date: 20-Apr-2016 13:33:10

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	3.999	3.995	0.004	96	98244	250.0	250.0	
* 2 Fluorobenzene	96	6.767	6.780	-0.013	98	930752	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.102	11.115	-0.013	86	230062	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.114	14.110	0.004	96	354614	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.931	5.944	-0.013	93	46954	1.00	1.03	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.349	6.362	-0.013	98	18252	1.00	1.02	
$ 10 Toluene-d8 (Surr)	98	8.874	8.887	-0.013	93	106642	1.00	1.03	
$ 11 4-Bromofluorobenzene (Surr	95	12.773	12.769	0.004	88	55193	1.00	1.07	

Reagents:

MV-568718-D_00006 Amount Added: 1.00 Units: uL
MV-ARCH SS A_00066 Amount Added: 0.08 Units: uL

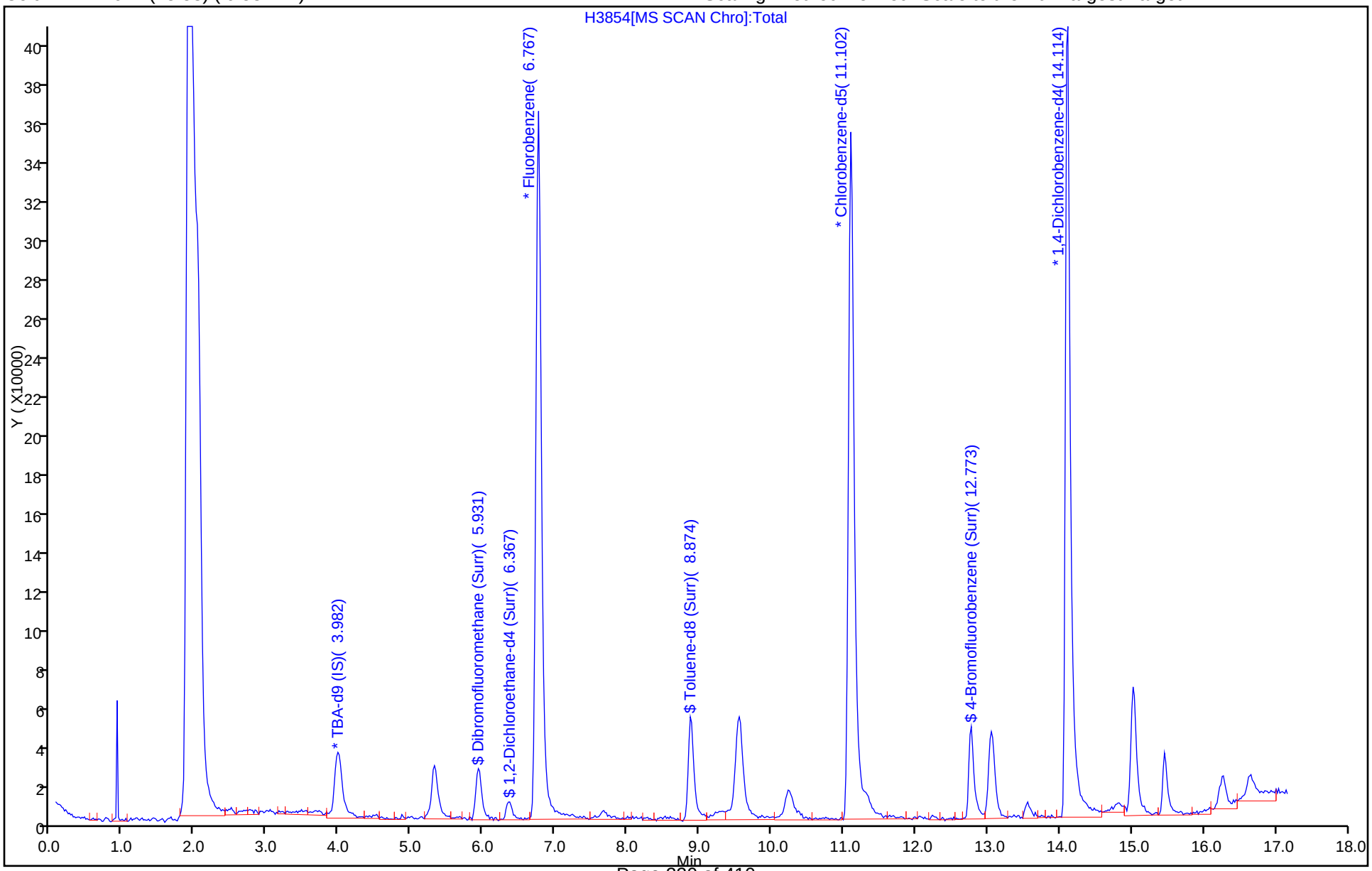
Report Date: 20-Apr-2016 21:46:18 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3854.D

Injection Date:	20-Apr-2016 12:45:30	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#:	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:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3855.D				
Lims ID:	std02				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-Apr-2016 13:09:30	ALS Bottle#:	7	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*sub64				
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:46:21	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: wickhamt		Date:	20-Apr-2016 14:09:07		

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	96	97638	250.0	250.0	
* 2 Fluorobenzene	96	6.763	6.780	-0.017	98	904394	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.115	11.115	0.000	86	227921	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.110	14.110	0.000	96	345155	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.927	5.944	-0.017	94	87079	2.00	1.96	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.363	6.362	0.001	99	35835	2.00	2.06	
$ 10 Toluene-d8 (Surr)	98	8.887	8.887	0.000	93	203519	2.00	1.99	
$ 11 4-Bromofluorobenzene (Surr	95	12.769	12.769	0.000	88	103058	2.00	2.05	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.16	Units: uL

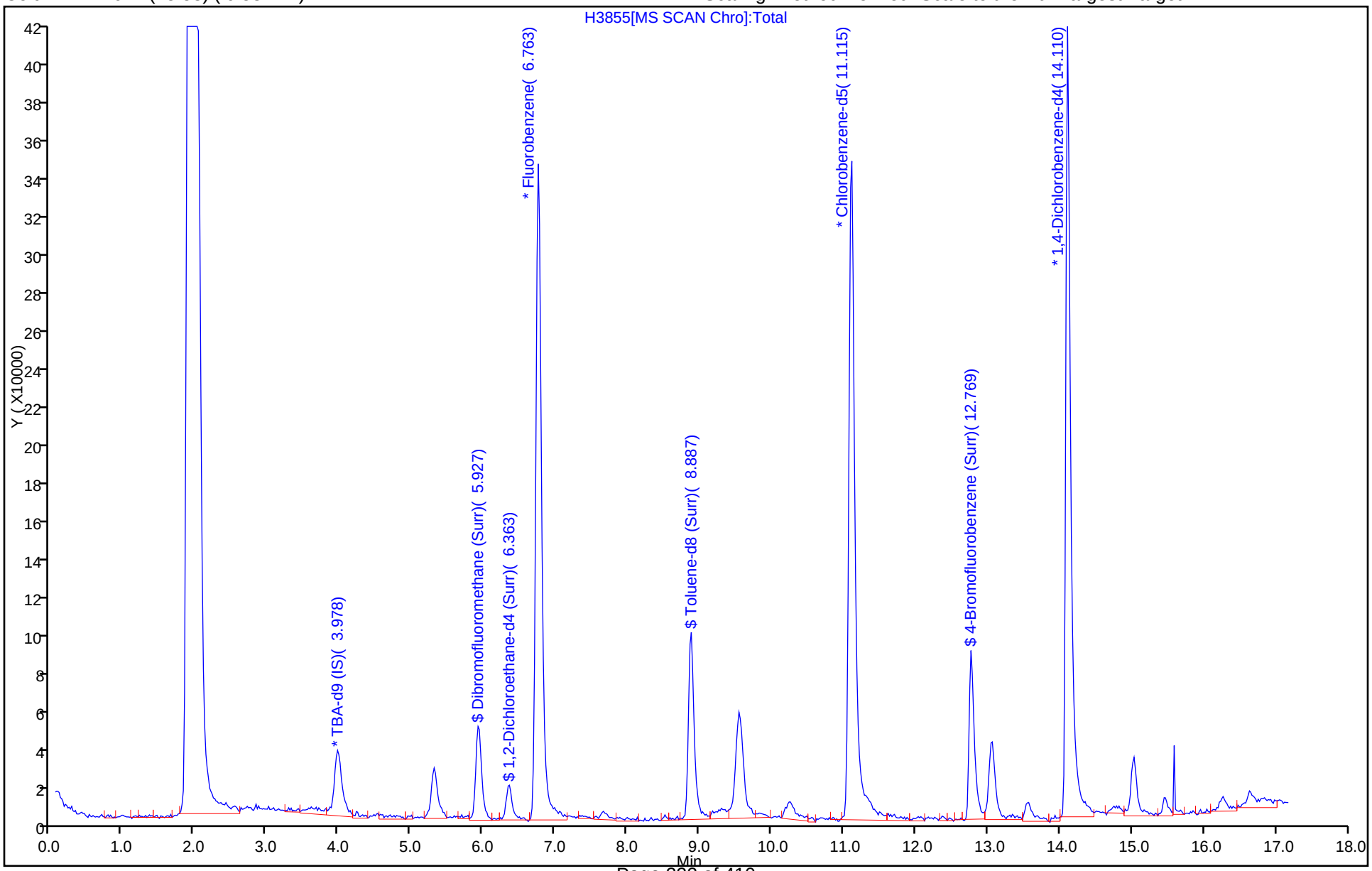
Report Date: 20-Apr-2016 21:46:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3855.D

Injection Date:	20-Apr-2016 13:09:30	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#:	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:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3856.D				
Lims ID:	std05				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-Apr-2016 13:32:30	ALS Bottle#:	8	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*sub64				
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:46:23	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: wickhamt		Date:	20-Apr-2016 14:09:34		

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	3.982	3.995	-0.013	97	115375	250.0	250.0	
* 2 Fluorobenzene	96	6.767	6.780	-0.013	98	922377	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.120	11.115	0.005	86	225820	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.114	14.110	0.004	95	348564	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.931	5.944	-0.013	94	233940	5.00	5.16	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.349	6.362	-0.013	100	90112	5.00	5.07	
$ 10 Toluene-d8 (Surr)	98	8.891	8.887	0.004	93	515004	5.00	5.08	
$ 11 4-Bromofluorobenzene (Surr	95	12.773	12.769	0.004	89	256136	5.00	5.05	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.40	Units: uL

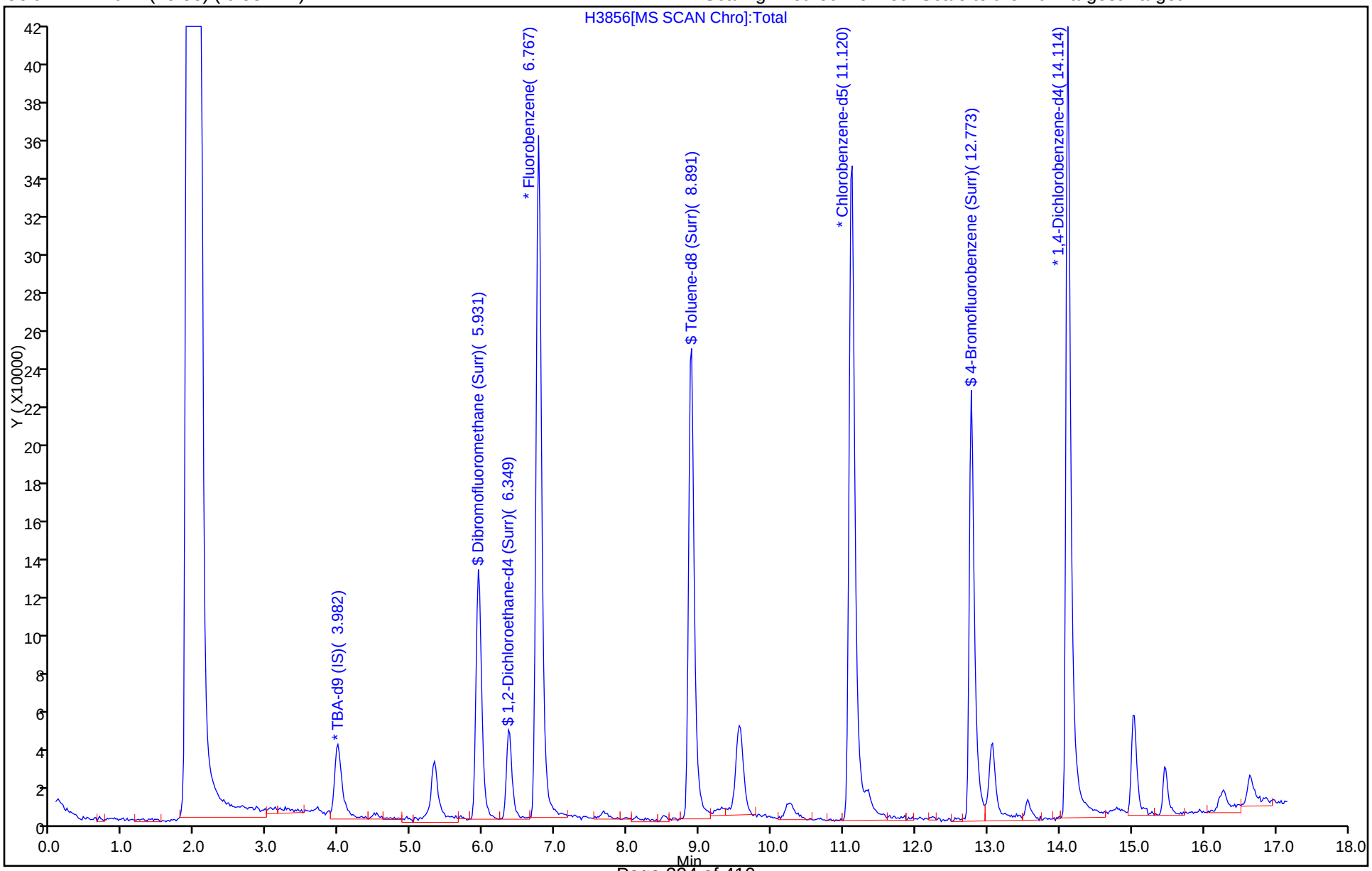
Report Date: 20-Apr-2016 21:46:24 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3856.D

Injection Date:	20-Apr-2016 13:32:30	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#:	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:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3857.D				
Lims ID:	std10				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-Apr-2016 13:56:30	ALS Bottle#:	9	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*sub64				
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:46:26	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: bergerb		Date:	20-Apr-2016 21:32:27		

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	3.995	3.995	0.000	96	107354	250.0	250.0	
* 2 Fluorobenzene	96	6.780	6.780	0.000	98	931778	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.115	11.115	0.000	86	232934	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.110	14.110	0.000	96	358374	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.944	5.944	0.000	93	458515	10.0	10.0	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.362	6.362	0.000	100	178200	10.0	9.93	
$ 10 Toluene-d8 (Surr)	98	8.887	8.887	0.000	93	1042047	10.0	9.96	
$ 11 4-Bromofluorobenzene (Surr	95	12.769	12.769	0.000	89	507458	10.0	9.74	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL

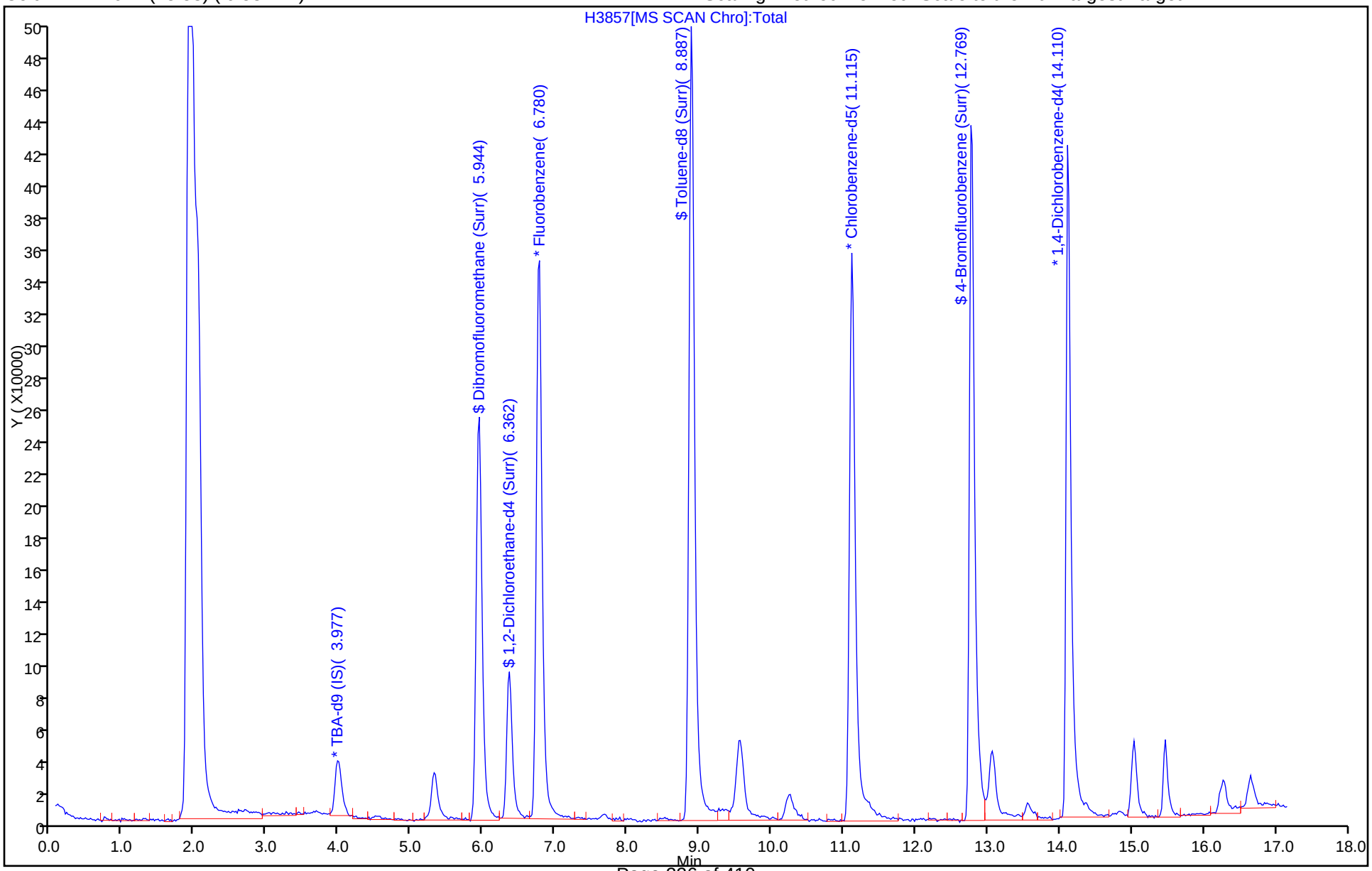
Report Date: 20-Apr-2016 21:46:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3857.D

Injection Date:	20-Apr-2016 13:56:30	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#:	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



TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3858.D				
Lims ID:	std30				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-Apr-2016 14:20:30	ALS Bottle#:	10	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*sub64				
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:46:31	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: bergerb		Date:	20-Apr-2016 21:32:33		

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	3.994	3.995	-0.001	96	97596	250.0	250.0	
* 2 Fluorobenzene	96	6.762	6.780	-0.018	98	867942	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.114	11.115	-0.001	86	217015	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.109	14.110	-0.001	96	330294	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.926	5.944	-0.018	94	1216018	30.0	28.5	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.344	6.362	-0.018	100	477537	30.0	28.6	
$ 10 Toluene-d8 (Surr)	98	8.886	8.887	-0.001	93	2753927	30.0	28.2	
$ 11 4-Bromofluorobenzene (Surr	95	12.768	12.769	-0.001	89	1330518	30.0	27.7	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	2.40	Units: uL

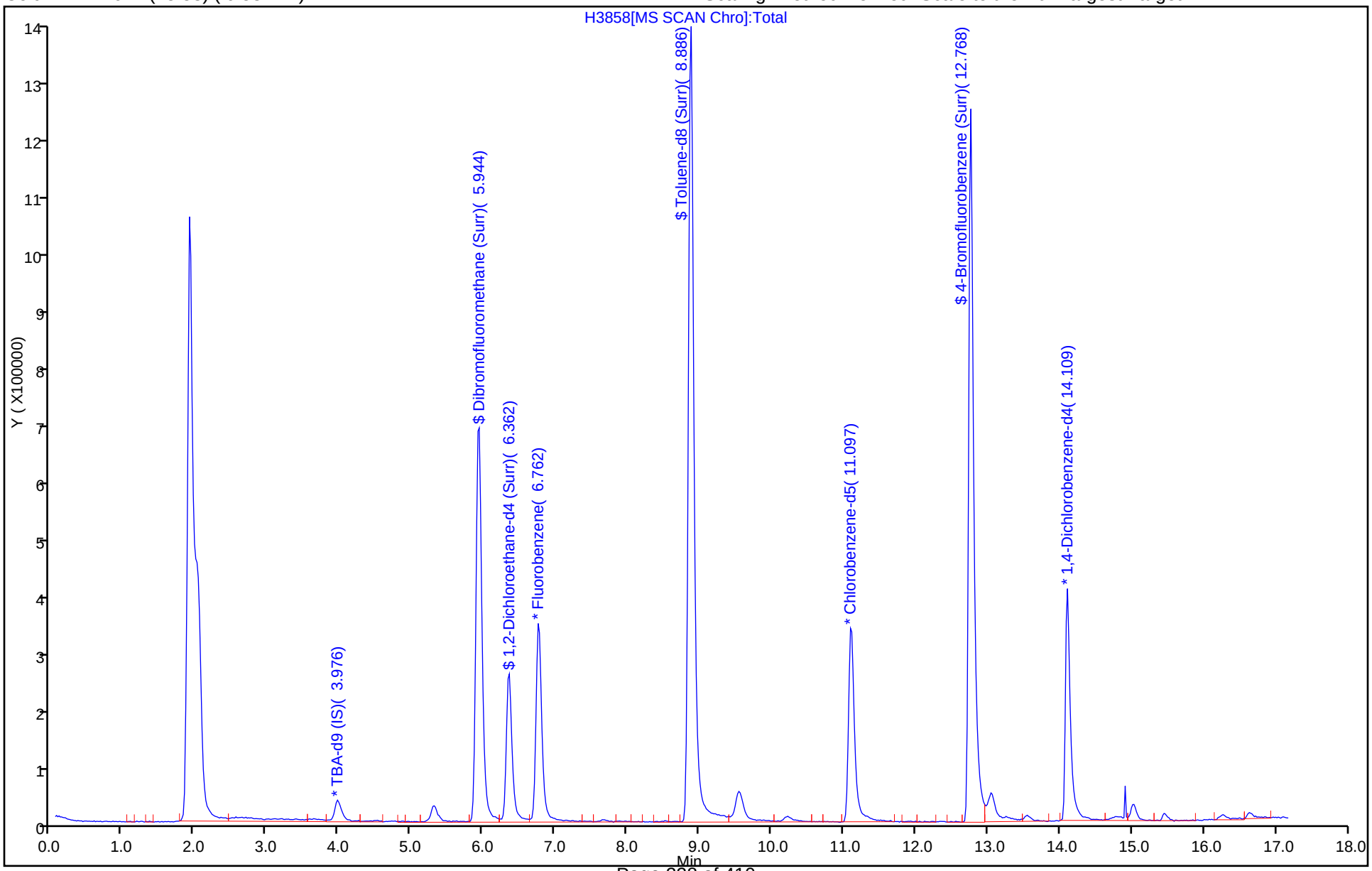
Report Date: 20-Apr-2016 21:46:31 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3858.D

Injection Date:	20-Apr-2016 14:20:30	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#:	10
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:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Lims ID:	std60				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	20-Apr-2016 14:43:30	ALS Bottle#:	11	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*sub64				
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:46:28	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: bergerb		Date:	20-Apr-2016 21:32:44		

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	3.981	3.995	-0.014	96	102552	250.0	250.0	
* 2 Fluorobenzene	96	6.767	6.780	-0.014	98	937448	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.119	11.115	0.004	86	229703	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.113	14.110	0.003	95	352125	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.931	5.944	-0.013	93	2794364	60.0	60.6	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.349	6.362	-0.013	99	1073145	60.0	59.5	
$ 10 Toluene-d8 (Surr)	98	8.890	8.887	0.003	93	6332360	60.0	61.4	
$ 11 4-Bromofluorobenzene (Surr	95	12.773	12.769	0.004	88	3057288	60.0	59.7	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	4.80	Units: uL

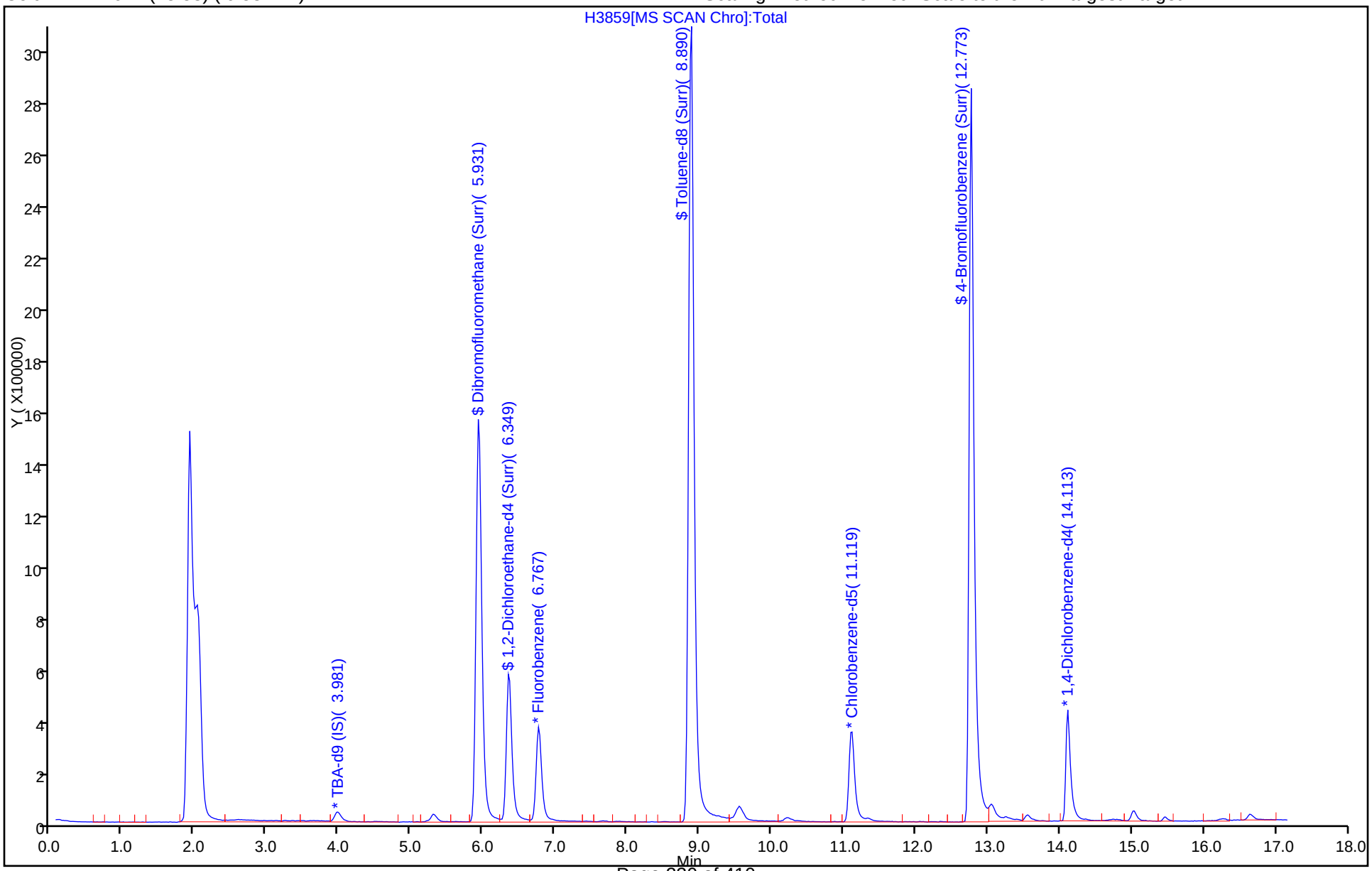
Report Date: 20-Apr-2016 21:46:29 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Injection Date:	20-Apr-2016 14:43:30	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#:	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.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-320302/24 Calibration Date: 04/12/2016 15:08

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 12:48

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 14:49

Lab File ID: G2_3378.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	0.0010	0.0008		393	500	-21.5	50.0
Isopropyl alcohol	Ave	0.0061	0.0059		97.2	100	-2.8	50.0
Acetonitrile	Ave	0.0124	0.0096		96.5	125	-22.8	50.0
Isopropyl ether	Ave	0.2164	0.1783		10.3	12.5	-17.6	20.0
Chloroprene	Ave	0.6303	0.6259		9.93	10.0	-0.7	20.0
Ethyl tert-Butyl Ether (ETBE)	Ave	0.6625	0.5214		9.84	12.5	-21.3	35.0
Ethyl acetate	Ave	0.0943	0.0925		19.6	20.0	-1.9	50.0
Propionitrile	Ave	0.0131	0.0105		100	125	-19.9	20.0
Methacrylonitrile	Ave	0.0638	0.0660		103	100	3.4	50.0
Tert-amyl methyl ether	Ave	0.4719	0.3858		10.2	12.5	-18.2	35.0
Methyl methacrylate	Ave	0.0270	0.0280		20.7	20.0	3.4	20.0
2-Nitropropane	Ave	0.0223	0.0213		19.1	20.0	-4.3	50.0
cis-1,4-Dichloro-2-butene	Ave	0.1423	0.1353		19.0	20.0	-4.9	50.0
Dibromofluoromethane (Surr)	Ave	0.2594	0.2608		10.1	10.0	0.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2207	0.2246		10.2	10.0	1.7	20.0
Toluene-d8 (Surr)	Ave	5.687	5.633		9.90	10.0	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.269	1.238		9.76	10.0	-2.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3378.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2016 15:08:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:15 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

	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	5.473	5.473	0.000	0	205457	250.0	250.0	
*	2 Fluorobenzene	96	7.419	7.419	0.000	98	1825595	12.5	12.5	
*	3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	372912	12.5	12.5	
*	4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	508022	12.5	12.5	
$	6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	380885	10.0	10.1	
$	7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	99	327975	10.0	10.2	
$	8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1680365	10.0	9.90	
$	9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	88	503335	10.0	9.76	
	18 Ethylene oxide	43	4.468	4.454	0.014	100	315259	400.0	444.1	
	23 Ethanol	45	4.817	4.817	0.000	99	58403	500.0	392.6	
	27 Propene oxide	58	5.068	5.054	0.014	96	3628900	1000.0	995.3	
	30 Isopropyl alcohol	45	5.222	5.208	0.014	99	86191	100.0	97.2	
	33 Acetonitrile	41	5.417	5.417	0.000	99	174338	125.0	96.5	
	45 Isopropyl ether	87	6.082	6.082	0.000	94	325555	12.5	10.3	
	47 2-Chloro-1,3-butadiene	53	6.190	6.189	0.001	92	914153	10.0	9.93	
	48 Tert-butyl ethyl ether	59	6.361	6.354	0.007	98	951878	12.5	9.84	
	49 Ethyl acetate	43	6.476	6.475	0.001	99	270257	20.0	19.6	
	51 Propionitrile	54	6.526	6.526	0.000	99	192236	125.0	100.2	
	55 Methacrylonitrile	41	6.654	6.654	0.000	93	963353	100.0	103.4	
	65 Tert-amyl methyl ether	73	7.241	7.241	0.000	98	704256	12.5	10.2	
	68 n-Butanol	56	7.434	7.434	0.000	89	94579	250.0	185.4	
	71 Methyl methacrylate	100	7.841	7.841	0.000	93	81656	20.0	20.7	
	77 2-Nitropropane	41	8.192	8.192	0.000	99	62296	20.0	19.1	
	89 Tetrahydrothiophene	60	9.293	9.293	0.000	90	12816	20.0	20.2	
	100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	93	109959	20.0	19.0	
	115 1,2,3-Trimethylbenzene	105	11.517	11.516	0.001	98	1560766	10.0	9.27	
	120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	97	621915	10.0	9.02	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL
MV-Supp A_00018	Amount Added:	5.00	Units: uL

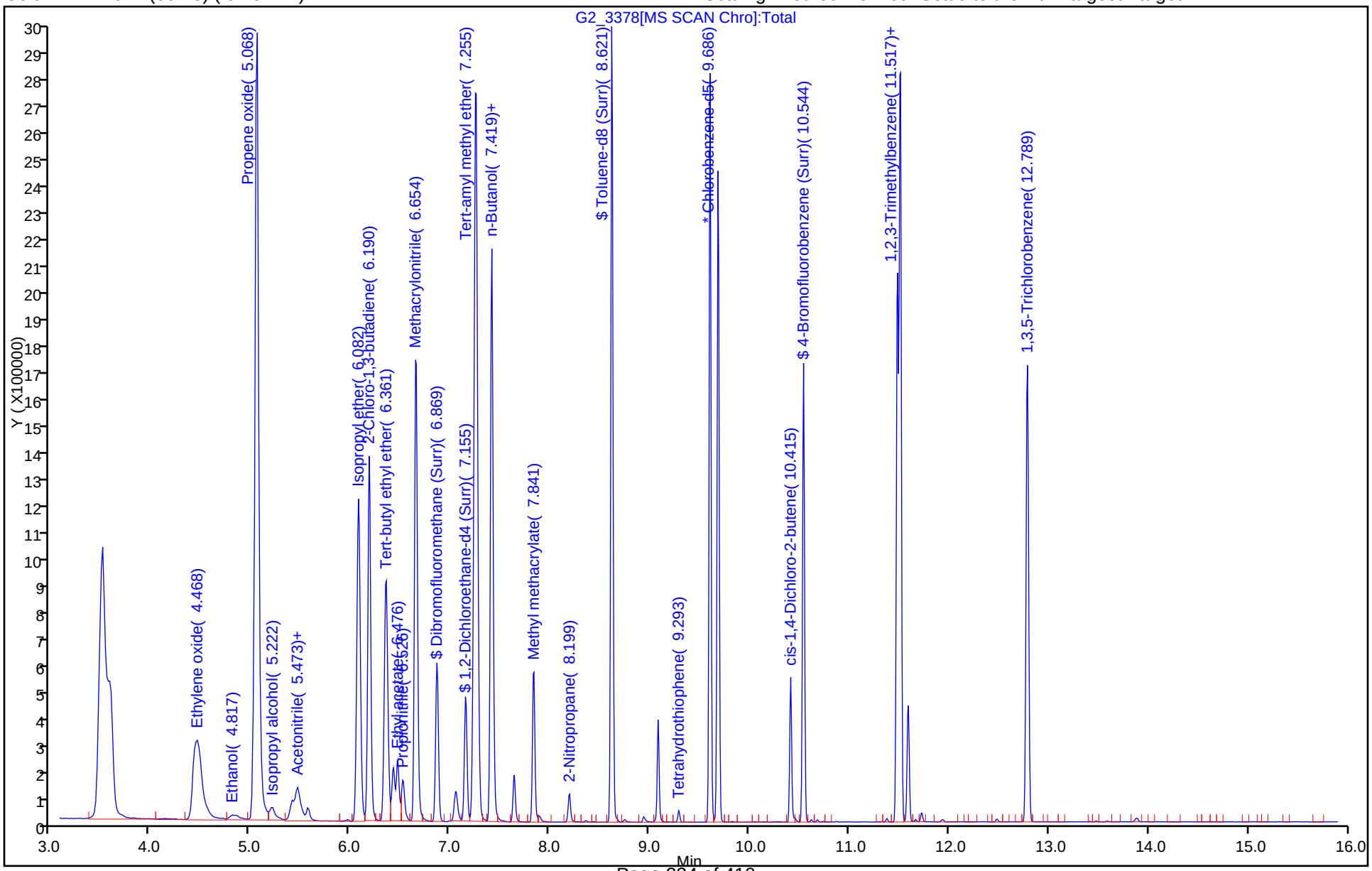
Report Date: 13-Apr-2016 05:42:16 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3378.D

Injection Date:	12-Apr-2016 15:08:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icv			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	0.4143	0.4292		10.4	10.0	3.6	20.0
Chloromethane	Ave	0.4641	0.4329	0.1000	9.33	10.0	-6.7	20.0
Vinyl chloride	Ave	0.4578	0.4450		9.72	10.0	-2.8	20.0
Bromomethane	Lin		0.2760		10.5	10.0	5.2	20.0
Chloroethane	Lin		0.2730		10.5	10.0	5.3	20.0
Dichlorofluoromethane	Ave	0.7905	0.7441		9.64	10.0	-5.9	50.0
Trichlorofluoromethane	Ave	0.5971	0.5848		9.79	10.0	-2.1	20.0
Ethyl ether	Ave	0.1624	0.1579		9.73	10.0	-2.7	20.0
Acrolein	Ave	0.0145	0.0094		64.9	100	-35.1	50.0
Acetone	Lin1		0.0279		42.6	40.0	6.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2954	0.2637		8.93	10.0	-10.7	20.0
1,1-Dichloroethene	Ave	0.3599	0.3384		9.40	10.0	-6.0	20.0
Iodomethane	Ave	0.5042	0.4969		9.85	10.0	-1.5	20.0
Methyl acetate	Ave	0.0792	0.0722		45.6	50.0	-8.8	50.0
Allyl chloride	Ave	0.6482	0.6484		10.0	10.0	0.0	20.0
Carbon disulfide	Ave	1.655	1.451		8.76	10.0	-12.4	20.0
t-Butyl alcohol	Ave	0.0088	0.0090		102	100	2.3	50.0
Methylene Chloride	Lin2		0.3176		9.54	10.0	-4.6	20.0
Acrylonitrile	Ave	0.0386	0.0374		96.8	100	-3.2	50.0
Methyl tert-butyl ether	Ave	0.4618	0.4756		10.3	10.0	3.0	20.0
trans-1,2-Dichloroethene	Ave	0.3857	0.3827		9.92	10.0	-0.8	20.0
Hexane	Ave	3.363	3.232		9.61	10.0	-3.9	20.0
Vinyl acetate	Ave	0.2632	0.2500		19.0	20.0	-5.0	50.0
1,1-Dichloroethane	Ave	0.6674	0.6318	0.1000	9.47	10.0	-5.3	20.0
2-Butanone (MEK)	Ave	0.0489	0.0500		40.9	40.0	2.3	20.0
2-Butanol	Lin2		0.0062		281	300	-6.5	50.0
cis-1,2-Dichloroethene	Ave	0.3426	0.3507		10.2	10.0	2.4	20.0
2,2-Dichloropropane	Ave	0.5287	0.5066		9.58	10.0	-4.2	20.0
Chlorobromomethane	Ave	0.1116	0.1094		9.80	10.0	-2.0	20.0
Chloroform	Ave	0.5608	0.5526		9.85	10.0	-1.5	20.0
Tetrahydrofuran	Ave	0.0258	0.0255		19.8	20.0	-1.1	50.0
Isobutyl alcohol	Ave	0.0029	0.0027		236	250	-5.5	50.0
1,1,1-Trichloroethane	Ave	0.5541	0.5352		9.66	10.0	-3.4	20.0
Cyclohexane	Ave	0.7291	0.7334		10.1	10.0	0.6	20.0
1,1-Dichloropropene	Ave	0.5362	0.5331		9.94	10.0	-0.6	20.0
Carbon tetrachloride	Ave	0.4819	0.4735		9.83	10.0	-1.7	20.0
1,2-Dichloroethane	Ave	0.2770	0.2682		9.68	10.0	-3.2	20.0
Benzene	Ave	1.403	1.411		10.1	10.0	0.6	20.0
Trichloroethene	Ave	0.3508	0.3581		10.2	10.0	2.1	20.0
2-Pentanone	Lin		0.0659		38.1	40.0	-4.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	0.3082	0.3109		10.1	10.0	0.9	20.0
Methylcyclohexane	Ave	0.6093	0.6090		10.0	10.0	-0.0	20.0
1,4-Dioxane	Lin2		0.0009		196	200	-2.0	50.0
Dibromomethane	Ave	0.1060	0.1018		9.60	10.0	-4.0	20.0
Dichlorobromomethane	Ave	0.3345	0.3357		10.0	10.0	0.3	20.0
2-Chloroethyl vinyl ether	Lin		0.0478		11.2	10.0	12.1	50.0
cis-1,3-Dichloropropene	Ave	1.752	1.917		10.9	10.0	9.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0895	0.0920		41.1	40.0	2.8	20.0
Toluene	Ave	1.359	1.453		10.7	10.0	6.9	20.0
Ethyl methacrylate	Lin1		0.8042		9.88	10.0	-1.2	20.0
trans-1,3-Dichloropropene	Ave	0.2804	0.2845		10.1	10.0	1.5	20.0
1,1,2-Trichloroethane	Ave	0.1468	0.1415		9.64	10.0	-3.6	20.0
2-Hexanone	Ave	0.2789	0.2902		41.6	40.0	4.0	20.0
1,3-Dichloropropane	Ave	1.324	1.336		10.1	10.0	0.8	20.0
Tetrachloroethene	Ave	1.461	1.469		10.1	10.0	0.5	20.0
Chlorodibromomethane	Ave	0.8148	0.8193		10.1	10.0	0.5	20.0
Ethylene Dibromide	Ave	0.6121	0.6247		10.2	10.0	2.1	20.0
1-Chlorohexane	Lin1		2.682		10.6	10.0	6.0	20.0
Chlorobenzene	Ave	4.130	4.114	0.3000	9.96	10.0	-0.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.248	1.279		10.2	10.0	2.4	20.0
Ethylbenzene	Ave	2.547	2.664		10.5	10.0	4.6	20.0
m-Xylene & p-Xylene	Ave	3.029	3.211		10.6	10.0	6.0	20.0
o-Xylene	Ave	2.810	2.976		10.6	10.0	5.9	20.0
Styrene	Ave	3.978	4.352		10.9	10.0	9.4	20.0
Bromoform	Ave	0.3556	0.3785	0.1000	10.6	10.0	6.4	20.0
Isopropylbenzene	Ave	4.949	5.590		11.3	10.0	13.0	20.0
Cyclohexanone	Lin1		0.0136		386	400	-3.4	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4914	0.4860	0.3000	9.89	10.0	-1.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1316	0.1334		10.1	10.0	1.3	50.0
1,2,3-Trichloropropane	Ave	0.1279	0.1296		10.1	10.0	1.3	20.0
Bromobenzene	Ave	0.9736	0.999		10.3	10.0	2.6	20.0
N-Propylbenzene	Ave	1.462	1.581		10.8	10.0	8.1	20.0
1,3,5-Trimethylbenzene	Ave	4.121	4.472		10.9	10.0	8.5	20.0
2-Chlorotoluene	Ave	1.176	1.219		10.4	10.0	3.6	20.0
4-Chlorotoluene	Ave	1.134	1.178		10.4	10.0	3.9	20.0
tert-Butylbenzene	Ave	4.138	4.564		11.0	10.0	10.3	20.0
1,2,4-Trimethylbenzene	Ave	4.187	4.384		10.5	10.0	4.7	20.0
sec-Butylbenzene	Ave	1.171	1.262		10.8	10.0	7.8	20.0
4-Isopropyltoluene	Ave	4.729	5.202		11.0	10.0	10.0	20.0
1,3-Dichlorobenzene	Ave	2.122	2.123		10.0	10.0	0.0	20.0
1,4-Dichlorobenzene	Ave	2.070	2.070		10.0	10.0	-0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-320302/17 Calibration Date: 04/12/2016 15:28

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3379.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	4.683	5.051		10.8	10.0	7.9	20.0
1,2-Dichlorobenzene	Ave	1.663	1.687		10.1	10.0	1.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0589	0.0639		10.8	10.0	8.4	20.0
1,2,4-Trichlorobenzene	Ave	1.019	1.150		11.3	10.0	12.8	20.0
Hexachlorobutadiene	Ave	0.8762	0.9229		10.6	10.0	5.3	20.0
Naphthalene	Lin1		1.251		10.2	10.0	1.6	20.0
1,2,3-Trichlorobenzene	Ave	0.7730	0.8103		10.5	10.0	4.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3379.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 12-Apr-2016 15:28:30 ALS Bottle#: 25 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: ilczyszynd Instrument ID: VMS_G2
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 13-Apr-2016 05:42:10 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK052

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	5.473	5.473	0.000	0	200952	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1748823	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	87	355573	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	96	532633	12.5	12.5	
13 Dichlorodifluoromethane	85	3.811	3.811	0.000	99	600450	10.0	10.4	
14 Chloromethane	50	4.007	4.007	0.000	99	605638	10.0	9.33	
16 Vinyl chloride	62	4.160	4.160	0.000	98	622580	10.0	9.72	
19 Bromomethane	94	4.509	4.510	-0.001	90	386157	10.0	10.5	
20 Chloroethane	64	4.565	4.579	-0.014	100	381869	10.0	10.5	
21 Dichlorofluoromethane	67	4.705	4.705	0.000	97	1040964	10.0	9.64	
22 Trichlorofluoromethane	101	4.789	4.789	0.000	99	818162	10.0	9.79	
25 Ethyl ether	59	4.970	4.971	-0.001	93	220965	10.0	9.73	
28 Acrolein	56	5.096	5.096	0.000	100	131722	100.0	64.9	
29 Acetone	43	5.194	5.194	0.000	100	156306	40.0	42.6	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	96	368872	10.0	8.93	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	97	473381	10.0	9.40	
34 Iodomethane	142	5.403	5.403	0.000	98	695122	10.0	9.85	
35 Methyl acetate	43	5.431	5.431	0.000	98	504954	50.0	45.6	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	907191	10.0	10.0	
37 Carbon disulfide	76	5.501	5.501	0.000	99	2029579	10.0	8.76	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	125830	100.0	102.3	
39 Methylene Chloride	84	5.571	5.571	0.000	94	444272	10.0	9.54	
40 Acrylonitrile	53	5.711	5.711	0.000	99	522479	100.0	96.8	
41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	96	665430	10.0	10.3	
42 trans-1,2-Dichloroethene	96	5.794	5.795	-0.001	97	535405	10.0	9.92	
43 Hexane	57	5.976	5.976	0.000	92	919483	10.0	9.61	
44 Vinyl acetate	43	6.046	6.054	-0.008	97	699439	20.0	19.0	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	883945	10.0	9.47	
50 2-Butanone (MEK)	43	6.475	6.476	-0.001	100	279550	40.0	40.9	
52 sec-Butyl Alcohol	45	6.525	6.526	-0.001	94	258481	300.0	280.6	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	490666	10.0	10.2	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	90	708779	10.0	9.58	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
56 Chlorobromomethane	128	6.733	6.733	0.000	92	153061	10.0	9.80	
57 Chloroform	83	6.740	6.747	-0.007	94	773147	10.0	9.85	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	71347	20.0	19.8	
59 Isobutyl alcohol	41	6.933	6.933	0.000	93	95841	250.0	236.3	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	748760	10.0	9.66	
61 Cyclohexane	56	7.047	7.048	-0.001	92	1026054	10.0	10.1	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	96	745850	10.0	9.94	
63 Carbon tetrachloride	117	7.112	7.112	0.000	98	662420	10.0	9.83	
64 1,2-Dichloroethane	62	7.212	7.212	0.000	97	375280	10.0	9.68	
66 Benzene	78	7.248	7.248	0.000	96	1974476	10.0	10.1	
67 n-Heptane	43	7.341	7.341	0.000	92	951111	10.0	10.3	
69 Trichloroethene	95	7.705	7.705	0.000	99	501058	10.0	10.2	
70 2-Pentanone	43	7.734	7.734	0.000	99	368525	40.0	38.1	
72 1,2-Dichloropropane	63	7.884	7.884	0.000	95	434949	10.0	10.1	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	852015	10.0	10.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	97	24530	200.0	196.0	
75 Dibromomethane	93	7.984	7.991	-0.007	97	142387	10.0	9.60	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	469599	10.0	10.0	
78 2-Chloroethyl vinyl ether	63	8.206	8.206	0.000	92	66924	10.0	11.2	
79 cis-1,3-Dichloropropene	75	8.385	8.385	0.000	95	545332	10.0	10.9	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.442	0.000	97	514835	40.0	41.1	
81 Toluene	91	8.671	8.671	0.000	98	2032502	10.0	10.7	
82 Ethyl methacrylate	69	8.756	8.757	-0.001	92	228756	10.0	9.88	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	97	398067	10.0	10.1	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	198011	10.0	9.64	
85 2-Hexanone	43	9.035	9.035	0.000	95	330213	40.0	41.6	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	93	379933	10.0	10.1	
87 Tetrachloroethene	164	9.092	9.093	-0.001	98	417735	10.0	10.1	
88 Chlorodibromomethane	129	9.250	9.250	0.000	90	233045	10.0	10.1	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	177705	10.0	10.2	
91 1-Chlorohexane	91	9.607	9.607	0.000	97	762945	10.0	10.6	
92 Chlorobenzene	112	9.714	9.715	-0.001	93	1170234	10.0	9.96	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.743	0.000	95	363716	10.0	10.2	
94 Ethylbenzene	106	9.750	9.750	0.000	98	757916	10.0	10.5	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	913426	10.0	10.6	
96 Styrene	104	10.136	10.137	-0.001	87	1238043	10.0	10.9	
97 o-Xylene	106	10.136	10.144	-0.008	88	846523	10.0	10.6	
98 Bromoform	173	10.329	10.330	-0.001	96	107678	10.0	10.6	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	2382133	10.0	11.3	
101 Cyclohexanone	55	10.508	10.508	0.000	94	154440	400.0	386.5	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.587	0.000	94	207105	10.0	9.89	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	90	56844	10.0	10.1	
104 1,2,3-Trichloropropane	110	10.658	10.659	0.000	86	55235	10.0	10.1	
105 Bromobenzene	156	10.708	10.709	-0.001	97	425775	10.0	10.3	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	673772	10.0	10.8	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1905687	10.0	10.9	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	519358	10.0	10.4	
109 4-Chlorotoluene	126	10.901	10.902	-0.001	99	501800	10.0	10.4	
110 tert-Butylbenzene	119	11.109	11.116	-0.007	94	1944734	10.0	11.0	
111 1,2,4-Trimethylbenzene	105	11.137	11.145	-0.008	98	1867879	10.0	10.5	
112 sec-Butylbenzene	134	11.288	11.288	0.000	95	537949	10.0	10.8	
113 4-Isopropyltoluene	119	11.380	11.381	-0.001	97	2216662	10.0	11.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
114 1,3-Dichlorobenzene	146	11.438	11.438	0.000	97	904456	10.0	10.0	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	881936	10.0	10.0	
117 n-Butylbenzene	91	11.731	11.738	-0.007	98	2152228	10.0	10.8	
118 1,2-Dichlorobenzene	146	11.852	11.853	-0.001	97	718630	10.0	10.1	
119 1,2-Dibromo-3-Chloropropan	157	12.567	12.568	-0.001	77	27230	10.0	10.8	
121 1,2,4-Trichlorobenzene	180	13.490	13.490	0.000	94	489912	10.0	11.3	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	97	393234	10.0	10.6	
123 Naphthalene	128	13.833	13.840	-0.007	97	533215	10.0	10.2	
124 1,2,3-Trichlorobenzene	180	14.140	14.148	-0.008	95	345276	10.0	10.5	
S 149 1,2-Dichloroethene, Total	96				0		20.0	20.2	
S 150 Trihalomethanes, Total	1				0		40.0	40.6	
S 151 Xylenes, Total (URS)	1				0		20.0	21.2	
S 153 1,3-Dichloropropene, Total	1				0		20.0	21.1	
S 154 1,2-Dichloroethene, Total	1				0		10.0	20.2	
S 155 Xylenes, Total	106				0		20.0	21.2	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL
MV-SS 2-Cleve_00027	Amount Added:	5.00	Units: uL
MV-Main B_00014	Amount Added:	5.00	Units: uL
MV-Gas/Ket B_00026	Amount Added:	5.00	Units: uL

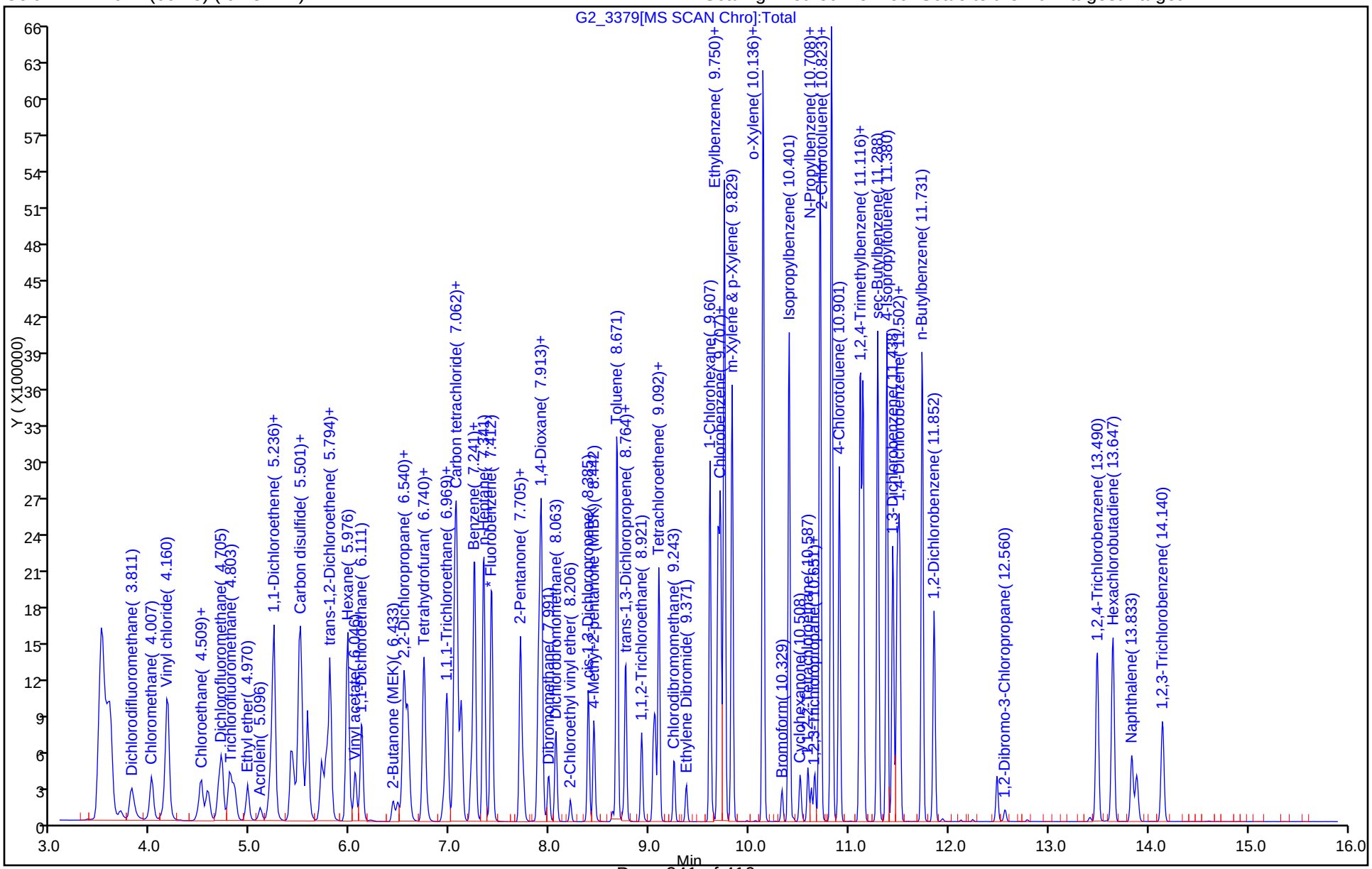
Report Date: 13-Apr-2016 05:42:11 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3379.D

Injection Date:	12-Apr-2016 15:28:30	Instrument ID:	VMS_G2	Operator ID:	ilczyszynd
Lims ID:	icv			Worklist Smp#:	17
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323599/2 Calibration Date: 05/03/2016 10:37

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 12:48

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 14:49

Lab File ID: G2_3976.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
Dibromofluoromethane (Surr)	Ave	0.2594	0.2604		10.0	10.0	0.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2207	0.2274		10.3	10.0	3.0	20.0
Toluene-d8 (Surr)	Ave	5.687	6.053		10.6	10.0	6.4	20.0
4-Bromofluorobenzene (Surr)	Ave	1.269	1.337		10.5	10.0	5.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3976.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-May-2016 10:37:30 ALS Bottle#: 10 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:56 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 11:08:00

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	5.473	5.473	0.000	0	215822	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1982032	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.693	0.000	91	408322	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	578195	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	412821	10.0	10.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	360504	10.0	10.3	
$ 8 Toluene-d8 (Surr)	98	8.628	8.628	0.000	94	1977154	10.0	10.6	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	618411	10.0	10.5	
13 Dichlorodifluoromethane	85	3.825	3.825	0.000	99	601052	10.0	9.15	
14 Chloromethane	50	4.021	4.021	0.000	99	674469	10.0	9.17	
16 Vinyl chloride	62	4.174	4.174	0.000	98	685034	10.0	9.44	
19 Bromomethane	94	4.510	4.510	0.000	90	406727	10.0	9.63	
20 Chloroethane	64	4.579	4.579	0.000	100	448879	10.0	11.0	
21 Dichlorofluoromethane	67	4.719	4.719	0.000	97	1218281	10.0	9.96	
22 Trichlorofluoromethane	101	4.803	4.803	0.000	98	912839	10.0	9.64	
25 Ethyl ether	59	4.970	4.970	0.000	93	274513	10.0	10.7	
28 Acrolein	56	5.096	5.096	0.000	99	218205	100.0	94.9	
29 Acetone	43	5.194	5.194	0.000	100	171416	40.0	41.2	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	97	445008	10.0	9.50	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	609183	10.0	10.7	
34 Iodomethane	142	5.417	5.417	0.000	98	791277	10.0	9.90	
35 Methyl acetate	43	5.431	5.431	0.000	97	584296	50.0	46.5	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	1090696	10.0	10.6	
37 Carbon disulfide	76	5.515	5.515	0.000	99	2906222	10.0	11.1	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	130250	100.0	93.5	
39 Methylene Chloride	84	5.571	5.571	0.000	97	560573	10.0	10.7	
40 Acrylonitrile	53	5.711	5.711	0.000	100	606815	100.0	99.2	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	734636	10.0	10.0	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	96	633072	10.0	10.4	
43 Hexane	57	5.976	5.976	0.000	92	1245034	10.0	11.3	
44 Vinyl acetate	43	6.054	6.054	0.000	97	907695	20.0	21.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	1089008	10.0	10.3	
50 2-Butanone (MEK)	43	6.483	6.483	0.000	100	295985	40.0	38.2	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	96	138294	150.0	135.3	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	559331	10.0	10.3	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	859031	10.0	10.2	
56 Chlorobromomethane	128	6.733	6.733	0.000	90	164523	10.0	9.30	
57 Chloroform	83	6.747	6.747	0.000	94	875585	10.0	9.85	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	83518	20.0	20.4	
59 Isobutyl alcohol	41	6.940	6.940	0.000	94	107598	250.0	234.1	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	874501	10.0	9.95	
61 Cyclohexane	56	7.055	7.055	0.000	92	1325454	10.0	11.5	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	912079	10.0	10.7	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	753802	10.0	9.87	
64 1,2-Dichloroethane	62	7.219	7.219	0.000	97	422859	10.0	9.63	
66 Benzene	78	7.248	7.248	0.000	96	2342079	10.0	10.5	
67 n-Heptane	43	7.341	7.341	0.000	92	1207098	10.0	11.5	
69 Trichloroethene	95	7.713	7.713	0.000	97	576889	10.0	10.4	
70 2-Pentanone	43	7.741	7.741	0.000	99	421402	20.0	38.5	
72 1,2-Dichloropropane	63	7.891	7.891	0.000	96	498452	10.0	10.2	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	1064276	10.0	11.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	96	22320	200.0	158.7	
75 Dibromomethane	93	7.991	7.991	0.000	95	156462	10.0	9.31	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	520778	10.0	9.82	
78 2-Chloroethyl vinyl ether	63	8.213	8.213	0.000	91	16416	10.0	4.02	
79 cis-1,3-Dichloropropene	75	8.392	8.392	0.000	94	613772	10.0	10.7	
80 4-Methyl-2-pentanone (MIBK	43	8.449	8.449	0.000	97	605589	40.0	42.7	
81 Toluene	91	8.678	8.678	0.000	98	2411120	10.0	11.2	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	455245	10.0	10.2	
82 Ethyl methacrylate	69	8.764	8.764	0.000	91	259467	10.0	9.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	219886	10.0	9.45	
85 2-Hexanone	43	9.043	9.043	0.000	97	393741	40.0	43.2	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	98	440195	10.0	10.2	
87 Tetrachloroethene	164	9.100	9.100	0.000	95	459702	10.0	9.64	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	254182	10.0	9.55	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	191662	10.0	9.59	
91 1-Chlorohexane	91	9.607	9.607	0.000	94	436844	5.00	5.41	
92 Chlorobenzene	112	9.715	9.715	0.000	94	1320883	10.0	9.79	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.750	0.000	94	385067	10.0	9.44	
94 Ethylbenzene	106	9.758	9.758	0.000	99	863238	10.0	10.4	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	1053206	10.0	10.6	
96 Styrene	104	10.144	10.144	0.000	82	1190552	10.0	9.16	
97 o-Xylene	106	10.144	10.144	0.000	90	957288	10.0	10.4	
98 Bromoform	173	10.330	10.330	0.000	94	103221	10.0	8.89	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	2700785	10.0	11.8	
101 Cyclohexanone	55	10.515	10.515	0.000	90	145637	400.0	320.2	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.594	0.000	93	229971	10.0	10.1	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	88	47732	10.0	7.84	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	86	56433	10.0	9.54	
105 Bromobenzene	156	10.709	10.709	0.000	96	443641	10.0	9.85	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	764930	10.0	11.3	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	2161655	10.0	11.3	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	571274	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Chlorotoluene	126	10.909	10.909	0.000	99	561805	10.0	10.7	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	2165387	10.0	11.3	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	2130590	10.0	11.0	
112 sec-Butylbenzene	134	11.295	11.295	0.000	95	594679	10.0	11.0	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	2478275	10.0	11.3	
114 1,3-Dichlorobenzene	146	11.445	11.445	0.000	97	969875	10.0	9.88	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	928993	10.0	9.70	
117 n-Butylbenzene	91	11.738	11.738	0.000	99	2527713	10.0	11.7	
118 1,2-Dichlorobenzene	146	11.860	11.860	0.000	96	748763	10.0	9.73	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	76	23833	10.0	8.74	
121 1,2,4-Trichlorobenzene	180	13.497	13.497	0.000	94	457907	10.0	9.71	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	386388	10.0	9.56	
123 Naphthalene	128	13.840	13.840	0.000	97	503008	10.0	8.90	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	323893	10.0	9.06	
S 149 1,2-Dichloroethene, Total	96				0		20.0	20.6	
S 150 Trihalomethanes, Total	1				0		40.0	38.1	
S 151 Xylenes, Total (URS)	1				0		20.0	21.1	
S 153 1,3-Dichloropropene, Total	1				0		20.0	21.0	
S 154 1,2-Dichloroethene, Total	1				0		20.0	20.6	
S 155 Xylenes, Total	106				0		20.0	21.1	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL		
MV-Main A_00026	Amount Added:	5.00	Units: uL		
MV-Gas/Ket A_00046	Amount Added:	5.00	Units: uL		
MV-SS 2-Cleve_00028	Amount Added:	5.00	Units: uL		
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent	

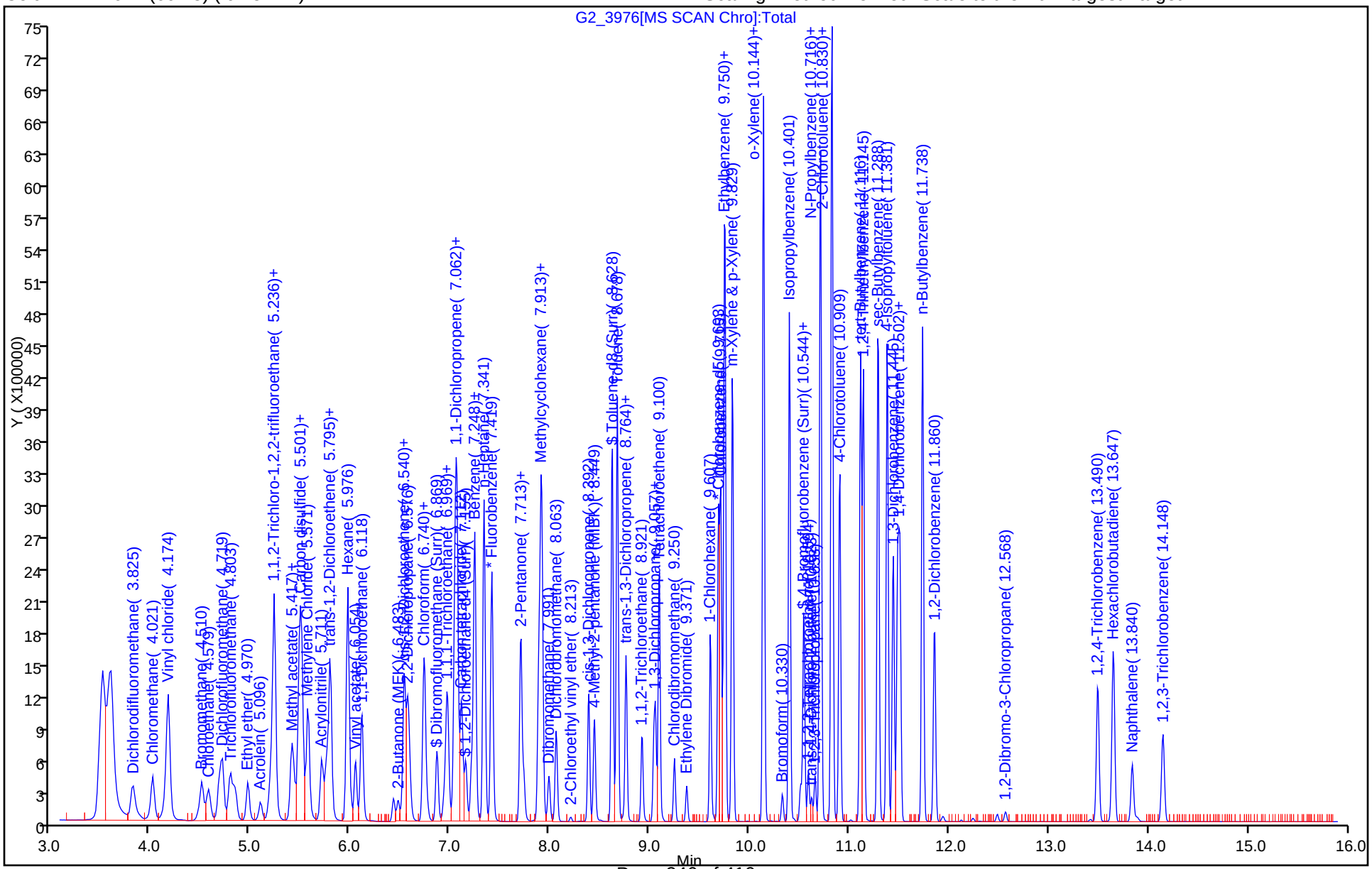
Report Date: 03-May-2016 16:33:57 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3976.D

Injection Date:	03-May-2016 10:37:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323599/2 Calibration Date: 05/03/2016 10:37

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3976.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	0.4143	0.3791		9.15	10.0	-8.5	20.0
Chloromethane	Ave	0.4641	0.4254	0.1000	9.17	10.0	-8.3	20.0
Vinyl chloride	Ave	0.4578	0.4320		9.44	10.0	-5.6	20.0
Bromomethane	Lin		0.2565		9.63	10.0	-3.7	20.0
Chloroethane	Lin		0.2831		11.0	10.0	9.9	20.0
Dichlorofluoromethane	Ave	0.7905	0.7683		9.96	10.0	-2.8	50.0
Trichlorofluoromethane	Ave	0.5971	0.5757		9.64	10.0	-3.6	20.0
Ethyl ether	Ave	0.1624	0.1731		10.7	10.0	6.6	20.0
Acrolein	Ave	0.0145	0.0138		94.9	100	-5.1	50.0
Acetone	Lin1		0.0270		41.2	40.0	2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2954	0.2807		9.50	10.0	-5.0	50.0
1,1-Dichloroethene	Ave	0.3599	0.3842		10.7	10.0	6.8	20.0
Iodomethane	Ave	0.5042	0.4990		9.90	10.0	-1.0	20.0
Methyl acetate	Ave	0.0792	0.0737		46.5	50.0	-6.9	50.0
Allyl chloride	Ave	0.6482	0.6879		10.6	10.0	6.1	20.0
Carbon disulfide	Ave	1.655	1.833		11.1	10.0	10.7	20.0
t-Butyl alcohol	Ave	0.0088	0.0082		93.5	100	-6.5	50.0
Methylene Chloride	Lin2		0.3535		10.7	10.0	7.1	20.0
Acrylonitrile	Ave	0.0386	0.0383		99.2	100	-0.8	50.0
Methyl tert-butyl ether	Ave	0.4618	0.4633		10.0	10.0	0.3	20.0
trans-1,2-Dichloroethene	Ave	0.3857	0.3993		10.4	10.0	3.5	20.0
Hexane	Ave	3.363	3.811		11.3	10.0	13.4	20.0
Vinyl acetate	Ave	0.2632	0.2862		21.7	20.0	8.7	50.0
1,1-Dichloroethane	Ave	0.6674	0.6868	0.1000	10.3	10.0	2.9	20.0
2-Butanone (MEK)	Ave	0.0489	0.0467		38.2	40.0	-4.5	20.0
2-Butanol	Lin2		0.0058		135	150	-9.8	50.0
cis-1,2-Dichloroethene	Ave	0.3426	0.3528		10.3	10.0	3.0	20.0
2,2-Dichloropropane	Ave	0.5287	0.5418		10.2	10.0	2.5	20.0
Chlorobromomethane	Ave	0.1116	0.1038		9.30	10.0	-7.0	20.0
Chloroform	Ave	0.5608	0.5522		9.85	10.0	-1.5	20.0
Tetrahydrofuran	Ave	0.0258	0.0263		20.4	20.0	2.1	50.0
Isobutyl alcohol	Ave	0.0029	0.0027		234	250	-6.4	50.0
1,1,1-Trichloroethane	Ave	0.5541	0.5515		9.95	10.0	-0.5	20.0
Cyclohexane	Ave	0.7291	0.8359		11.5	10.0	14.7	20.0
1,1-Dichloropropene	Ave	0.5362	0.5752		10.7	10.0	7.3	20.0
Carbon tetrachloride	Ave	0.4819	0.4754		9.87	10.0	-1.3	20.0
1,2-Dichloroethane	Ave	0.2770	0.2667		9.63	10.0	-3.7	20.0
Benzene	Ave	1.403	1.477		10.5	10.0	5.3	20.0
Trichloroethene	Ave	0.3508	0.3638		10.4	10.0	3.7	20.0
2-Pentanone	Lin		0.1329		38.5	20.0	92.5*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323599/2 Calibration Date: 05/03/2016 10:37

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3976.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	0.3082	0.3144		10.2	10.0	2.0	20.0
Methylcyclohexane	Ave	0.6093	0.6712		11.0	10.0	10.2	20.0
1,4-Dioxane	Lin2		0.0007		159	200	-20.7	50.0
Dibromomethane	Ave	0.1060	0.0987		9.31	10.0	-6.9	20.0
Dichlorobromomethane	Ave	0.3345	0.3284		9.82	10.0	-1.8	20.0
2-Chloroethyl vinyl ether	Lin		0.0104		4.02	10.0	-59.8*	50.0
cis-1,3-Dichloropropene	Ave	1.752	1.879		10.7	10.0	7.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0895	0.0955		42.7	40.0	6.7	20.0
Toluene	Ave	1.359	1.521		11.2	10.0	11.9	20.0
Ethyl methacrylate	Lin1		0.7943		9.77	10.0	-2.3	20.0
trans-1,3-Dichloropropene	Ave	0.2804	0.2871		10.2	10.0	2.4	20.0
1,1,2-Trichloroethane	Ave	0.1468	0.1387		9.45	10.0	-5.5	20.0
2-Hexanone	Ave	0.2789	0.3013		43.2	40.0	8.0	20.0
1,3-Dichloropropane	Ave	1.324	1.348		10.2	10.0	1.8	20.0
Tetrachloroethene	Ave	1.461	1.407		9.64	10.0	-3.6	20.0
Chlorodibromomethane	Ave	0.8148	0.7781		9.55	10.0	-4.5	20.0
Ethylene Dibromide	Ave	0.6121	0.5867		9.59	10.0	-4.1	20.0
1-Chlorohexane	Lin1		2.675		5.41	5.00	8.3	20.0
Chlorobenzene	Ave	4.130	4.044	0.3000	9.79	10.0	-2.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.248	1.179		9.44	10.0	-5.6	20.0
Ethylbenzene	Ave	2.547	2.643		10.4	10.0	3.8	20.0
m-Xylene & p-Xylene	Ave	3.029	3.224		10.6	10.0	6.4	20.0
o-Xylene	Ave	2.810	2.931		10.4	10.0	4.3	20.0
Styrene	Ave	3.978	3.645		9.16	10.0	-8.4	20.0
Bromoform	Ave	0.3556	0.3160	0.1000	8.89	10.0	-11.1	20.0
Isopropylbenzene	Ave	4.949	5.839		11.8	10.0	18.0	20.0
Cyclohexanone	Lin1		0.0112		320	400	-19.9	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4914	0.4972	0.3000	10.1	10.0	1.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1316	0.1032		7.84	10.0	-21.6	50.0
1,2,3-Trichloropropane	Ave	0.1279	0.1220		9.54	10.0	-4.6	20.0
Bromobenzene	Ave	0.9736	0.9591		9.85	10.0	-1.5	20.0
N-Propylbenzene	Ave	1.462	1.654		11.3	10.0	13.1	20.0
1,3,5-Trimethylbenzene	Ave	4.121	4.673		11.3	10.0	13.4	20.0
2-Chlorotoluene	Ave	1.176	1.235		10.5	10.0	5.0	20.0
4-Chlorotoluene	Ave	1.134	1.215		10.7	10.0	7.1	20.0
tert-Butylbenzene	Ave	4.138	4.681		11.3	10.0	13.1	20.0
1,2,4-Trimethylbenzene	Ave	4.187	4.606		11.0	10.0	10.0	20.0
sec-Butylbenzene	Ave	1.171	1.286		11.0	10.0	9.8	20.0
4-Isopropyltoluene	Ave	4.729	5.358		11.3	10.0	13.3	20.0
1,3-Dichlorobenzene	Ave	2.122	2.097		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	2.070	2.008		9.70	10.0	-3.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323599/2 Calibration Date: 05/03/2016 10:37

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 10:14

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 12:10

Lab File ID: G2_3976.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	4.683	5.465		11.7	10.0	16.7	20.0
1,2-Dichlorobenzene	Ave	1.663	1.619		9.73	10.0	-2.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0589	0.0515		8.74	10.0	-12.6	20.0
1,2,4-Trichlorobenzene	Ave	1.019	0.9900		9.71	10.0	-2.9	20.0
Hexachlorobutadiene	Ave	0.8762	0.8353		9.56	10.0	-4.7	20.0
Naphthalene	Lin1		1.087		8.90	10.0	-11.0	20.0
1,2,3-Trichlorobenzene	Ave	0.7730	0.7002		9.06	10.0	-9.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3976.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-May-2016 10:37:30 ALS Bottle#: 10 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub90

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:56 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 11:08:00

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	5.473	5.473	0.000	0	215822	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1982032	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.693	9.693	0.000	91	408322	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	578195	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	412821	10.0	10.0	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	360504	10.0	10.3	
$ 8 Toluene-d8 (Surr)	98	8.628	8.628	0.000	94	1977154	10.0	10.6	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	618411	10.0	10.5	
13 Dichlorodifluoromethane	85	3.825	3.825	0.000	99	601052	10.0	9.15	
14 Chloromethane	50	4.021	4.021	0.000	99	674469	10.0	9.17	
16 Vinyl chloride	62	4.174	4.174	0.000	98	685034	10.0	9.44	
19 Bromomethane	94	4.510	4.510	0.000	90	406727	10.0	9.63	
20 Chloroethane	64	4.579	4.579	0.000	100	448879	10.0	11.0	
21 Dichlorofluoromethane	67	4.719	4.719	0.000	97	1218281	10.0	9.96	
22 Trichlorofluoromethane	101	4.803	4.803	0.000	98	912839	10.0	9.64	
25 Ethyl ether	59	4.970	4.970	0.000	93	274513	10.0	10.7	
28 Acrolein	56	5.096	5.096	0.000	99	218205	100.0	94.9	
29 Acetone	43	5.194	5.194	0.000	100	171416	40.0	41.2	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	97	445008	10.0	9.50	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	609183	10.0	10.7	
34 Iodomethane	142	5.417	5.417	0.000	98	791277	10.0	9.90	
35 Methyl acetate	43	5.431	5.431	0.000	97	584296	50.0	46.5	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	1090696	10.0	10.6	
37 Carbon disulfide	76	5.515	5.515	0.000	99	2906222	10.0	11.1	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	130250	100.0	93.5	
39 Methylene Chloride	84	5.571	5.571	0.000	97	560573	10.0	10.7	
40 Acrylonitrile	53	5.711	5.711	0.000	100	606815	100.0	99.2	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	734636	10.0	10.0	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.000	96	633072	10.0	10.4	
43 Hexane	57	5.976	5.976	0.000	92	1245034	10.0	11.3	
44 Vinyl acetate	43	6.054	6.054	0.000	97	907695	20.0	21.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
46 1,1-Dichloroethane	63	6.118	6.118	0.000	96	1089008	10.0	10.3	
50 2-Butanone (MEK)	43	6.483	6.483	0.000	100	295985	40.0	38.2	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	96	138294	150.0	135.3	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	559331	10.0	10.3	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	859031	10.0	10.2	
56 Chlorobromomethane	128	6.733	6.733	0.000	90	164523	10.0	9.30	
57 Chloroform	83	6.747	6.747	0.000	94	875585	10.0	9.85	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	83518	20.0	20.4	
59 Isobutyl alcohol	41	6.940	6.940	0.000	94	107598	250.0	234.1	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	874501	10.0	9.95	
61 Cyclohexane	56	7.055	7.055	0.000	92	1325454	10.0	11.5	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	912079	10.0	10.7	
63 Carbon tetrachloride	117	7.112	7.112	0.000	97	753802	10.0	9.87	
64 1,2-Dichloroethane	62	7.219	7.219	0.000	97	422859	10.0	9.63	
66 Benzene	78	7.248	7.248	0.000	96	2342079	10.0	10.5	
67 n-Heptane	43	7.341	7.341	0.000	92	1207098	10.0	11.5	
69 Trichloroethene	95	7.713	7.713	0.000	97	576889	10.0	10.4	
70 2-Pentanone	43	7.741	7.741	0.000	99	421402	20.0	38.5	
72 1,2-Dichloropropane	63	7.891	7.891	0.000	96	498452	10.0	10.2	
73 Methylcyclohexane	55	7.913	7.913	0.000	94	1064276	10.0	11.0	
74 1,4-Dioxane	88	7.941	7.941	0.000	96	22320	200.0	158.7	
75 Dibromomethane	93	7.991	7.991	0.000	95	156462	10.0	9.31	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	520778	10.0	9.82	
78 2-Chloroethyl vinyl ether	63	8.213	8.213	0.000	91	16416	10.0	4.02	
79 cis-1,3-Dichloropropene	75	8.392	8.392	0.000	94	613772	10.0	10.7	
80 4-Methyl-2-pentanone (MIBK	43	8.449	8.449	0.000	97	605589	40.0	42.7	
81 Toluene	91	8.678	8.678	0.000	98	2411120	10.0	11.2	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	455245	10.0	10.2	
82 Ethyl methacrylate	69	8.764	8.764	0.000	91	259467	10.0	9.77	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	219886	10.0	9.45	
85 2-Hexanone	43	9.043	9.043	0.000	97	393741	40.0	43.2	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	98	440195	10.0	10.2	
87 Tetrachloroethene	164	9.100	9.100	0.000	95	459702	10.0	9.64	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	254182	10.0	9.55	
90 Ethylene Dibromide	107	9.371	9.371	0.000	98	191662	10.0	9.59	
91 1-Chlorohexane	91	9.607	9.607	0.000	94	436844	5.00	5.41	
92 Chlorobenzene	112	9.715	9.715	0.000	94	1320883	10.0	9.79	
93 1,1,1,2-Tetrachloroethane	131	9.750	9.750	0.000	94	385067	10.0	9.44	
94 Ethylbenzene	106	9.758	9.758	0.000	99	863238	10.0	10.4	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	1053206	10.0	10.6	
96 Styrene	104	10.144	10.144	0.000	82	1190552	10.0	9.16	
97 o-Xylene	106	10.144	10.144	0.000	90	957288	10.0	10.4	
98 Bromoform	173	10.330	10.330	0.000	94	103221	10.0	8.89	
99 Isopropylbenzene	105	10.401	10.401	0.000	97	2700785	10.0	11.8	
101 Cyclohexanone	55	10.515	10.515	0.000	90	145637	400.0	320.2	
102 1,1,2,2-Tetrachloroethane	83	10.594	10.594	0.000	93	229971	10.0	10.1	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	88	47732	10.0	7.84	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	86	56433	10.0	9.54	
105 Bromobenzene	156	10.709	10.709	0.000	96	443641	10.0	9.85	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	764930	10.0	11.3	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	2161655	10.0	11.3	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	571274	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Chlorotoluene	126	10.909	10.909	0.000	99	561805	10.0	10.7	
110 tert-Butylbenzene	119	11.116	11.116	0.000	93	2165387	10.0	11.3	
111 1,2,4-Trimethylbenzene	105	11.145	11.145	0.000	98	2130590	10.0	11.0	
112 sec-Butylbenzene	134	11.295	11.295	0.000	95	594679	10.0	11.0	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	2478275	10.0	11.3	
114 1,3-Dichlorobenzene	146	11.445	11.445	0.000	97	969875	10.0	9.88	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	93	928993	10.0	9.70	
117 n-Butylbenzene	91	11.738	11.738	0.000	99	2527713	10.0	11.7	
118 1,2-Dichlorobenzene	146	11.860	11.860	0.000	96	748763	10.0	9.73	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	76	23833	10.0	8.74	
121 1,2,4-Trichlorobenzene	180	13.497	13.497	0.000	94	457907	10.0	9.71	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	386388	10.0	9.56	
123 Naphthalene	128	13.840	13.840	0.000	97	503008	10.0	8.90	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	95	323893	10.0	9.06	
S 149 1,2-Dichloroethene, Total	96				0		20.0	20.6	
S 150 Trihalomethanes, Total	1				0		40.0	38.1	
S 151 Xylenes, Total (URS)	1				0		20.0	21.1	
S 153 1,3-Dichloropropene, Total	1				0		20.0	21.0	
S 154 1,2-Dichloroethene, Total	1				0		20.0	20.6	
S 155 Xylenes, Total	106				0		20.0	21.1	

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL		
MV-Main A_00026	Amount Added:	5.00	Units: uL		
MV-Gas/Ket A_00046	Amount Added:	5.00	Units: uL		
MV-SS 2-Cleve_00028	Amount Added:	5.00	Units: uL		
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent	

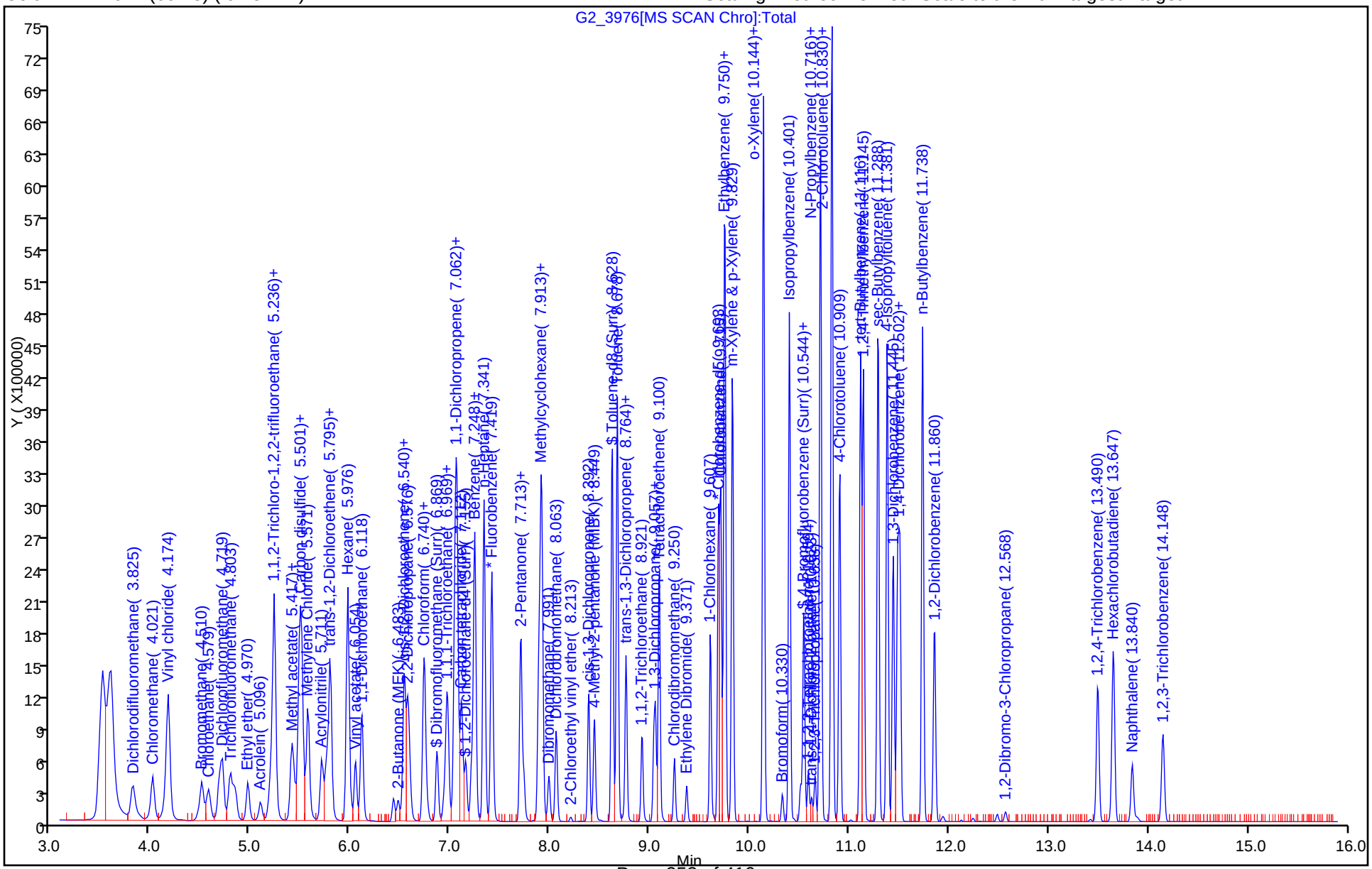
Report Date: 03-May-2016 16:33:57 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3976.D

Injection Date:	03-May-2016 10:37:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323599/3 Calibration Date: 05/03/2016 10:56

Instrument ID: VMS_G2 Calib Start Date: 04/12/2016 12:48

GC Column: DB-624 (60.25) ID: 0.25(mm) Calib End Date: 04/12/2016 14:49

Lab File ID: G2_3977.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	0.0010	0.0009		454	500	-9.3	50.0
Isopropyl alcohol	Ave	0.0061	0.0052		84.8	100	-15.2	50.0
Acetonitrile	Ave	0.0124	0.0118		119	125	-4.5	50.0
Isopropyl ether	Ave	0.2164	0.2099		12.1	12.5	-3.0	20.0
Chloroprene	Ave	0.6303	0.6154		9.76	10.0	-2.4	20.0
Ethyl tert-Butyl Ether (ETBE)	Ave	0.6625	0.6379		12.0	12.5	-3.7	35.0
Ethyl acetate	Ave	0.0943	0.0897		19.0	20.0	-5.0	50.0
Propionitrile	Ave	0.0131	0.0127		121	125	-3.4	50.0
Methacrylonitrile	Ave	0.0638	0.0631		98.9	100	-1.1	50.0
Tert-amyl methyl ether	Ave	0.4719	0.4576		12.1	12.5	-3.0	35.0
Methyl methacrylate	Ave	0.0270	0.0262		19.4	20.0	-3.2	20.0
2-Nitropropane	Ave	0.0223	0.0220		19.7	20.0	-1.5	50.0
cis-1,4-Dichloro-2-butene	Ave	0.1423	0.1092		15.3	20.0	-23.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2594	0.2645		10.2	10.0	2.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2207	0.2314		10.5	10.0	4.9	20.0
Toluene-d8 (Surr)	Ave	5.687	6.014		10.6	10.0	5.7	20.0
4-Bromofluorobenzene (Surr)	Ave	1.269	1.393		11.0	10.0	9.8	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3977.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 03-May-2016 10:56:30 ALS Bottle#: 11 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: moanm Instrument ID: VMS_G2
Sublist: chrom-AQ_VMSG2_8260*sub129

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:58 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 11:33:22

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	5.473	5.473	0.000	0	191442	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1876973	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	392765	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	511217	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	397188	10.0	10.2	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	347532	10.0	10.5	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1889626	10.0	10.6	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	569791	10.0	11.0	
18 Ethylene oxide	43	4.454	4.454	0.000	100	299627	400.0	404.3	
23 Ethanol	45	4.803	4.803	0.000	99	69382	500.0	453.6	
27 Propene oxide	58	5.054	5.054	0.000	96	3664424	1000.0	977.6	
30 Isopropyl alcohol	45	5.208	5.208	0.000	99	77323	100.0	84.8	
33 Acetonitrile	41	5.403	5.403	0.000	99	221669	125.0	119.3	
45 Isopropyl ether	87	6.082	6.082	0.000	95	394052	12.5	12.1	
47 2-Chloro-1,3-butadiene	53	6.182	6.182	0.000	92	924130	10.0	9.76	
48 Tert-butyl ethyl ether	59	6.354	6.354	0.000	98	1197292	12.5	12.0	
49 Ethyl acetate	43	6.475	6.475	0.000	99	269256	20.0	19.0	
51 Propionitrile	54	6.526	6.526	0.000	99	238323	125.0	120.8	
55 Methacrylonitrile	41	6.654	6.654	0.000	92	946907	100.0	98.9	
65 Tert-amyl methyl ether	73	7.241	7.241	0.000	97	858924	12.5	12.1	
68 n-Butanol	56	7.434	7.434	0.000	51	124593	250.0	242.3	
71 Methyl methacrylate	100	7.841	7.841	0.000	92	78586	20.0	19.4	
77 2-Nitropropane	41	8.192	8.192	0.000	98	65929	20.0	19.7	
89 Tetrahydrothiophene	60	9.293	9.293	0.000	89	10023	20.0	16.4	
100 cis-1,4-Dichloro-2-butene	53	10.415	10.415	0.000	0	89314	20.0	15.3	
115 1,2,3-Trimethylbenzene	105	11.516	11.516	0.000	98	1682012	10.0	9.93	
120 1,3,5-Trichlorobenzene	180	12.789	12.789	0.000	96	625812	10.0	9.02	

Reagents:

MV-Supp A_00018	Amount Added:	5.00	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent

Report Date: 03-May-2016 16:33:59 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3977.D

Injection Date:	03-May-2016 10:56:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-321369/23 Calibration Date: 04/19/2016 01:57

Instrument ID: VMS_H Calib Start Date: 04/18/2016 22:46

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 01:10

Lab File ID: H3769.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	0.5809	0.6696		0.0115	0.0100	15.3	20.0
Chloromethane	Ave	0.2703	0.2774	0.1000	0.0103	0.0100	2.6	20.0
Vinyl chloride	Ave	0.3278	0.3516		0.0107	0.0100	7.3	20.0
Bromomethane	Ave	0.3268	0.3390		0.0104	0.0100	3.8	20.0
Chloroethane	Ave	0.2103	0.2249		0.0107	0.0100	6.9	20.0
Trichlorofluoromethane	Ave	0.9282	0.9877		0.0106	0.0100	6.4	20.0
1,1-Dichloroethene	Ave	0.4587	0.4164		0.00908	0.0100	-9.2	20.0
Acetone	Ave	0.0172	0.0180		0.0419	0.0400	4.6	20.0
Carbon disulfide	Ave	1.559	1.351		0.00866	0.0100	-13.4	20.0
Methylene Chloride	Lin2		0.2948		0.00946	0.0100	-5.4	20.0
Methyl tert-butyl ether	Ave	0.5175	0.4863		0.00940	0.0100	-6.0	20.0
trans-1,2-Dichloroethene	Ave	0.4641	0.4687		0.0101	0.0100	1.0	20.0
1,1-Dichloroethane	Ave	0.7843	0.7226	0.1000	0.00921	0.0100	-7.9	20.0
cis-1,2-Dichloroethene	Ave	0.4344	0.4344		0.0100	0.0100	0.0	20.0
2,2-Dichloropropane	Ave	0.9216	0.8470		0.00919	0.0100	-8.1	20.0
2-Butanone (MEK)	Ave	0.0300	0.0323		0.0430	0.0400	7.5	20.0
Chlorobromomethane	Ave	0.1736	0.1722		0.00992	0.0100	-0.8	20.0
Chloroform	Ave	0.8307	0.8159		0.00982	0.0100	-1.8	20.0
1,1,1-Trichloroethane	Ave	0.9516	0.9527		0.0100	0.0100	0.1	20.0
1,1-Dichloropropene	Ave	0.8179	0.7828		0.00957	0.0100	-4.3	20.0
Carbon tetrachloride	Ave	0.9798	0.9909		0.0101	0.0100	1.1	20.0
Benzene	Ave	1.304	1.271		0.00974	0.0100	-2.6	20.0
1,2-Dichloroethane	Ave	0.2630	0.2585		0.00983	0.0100	-1.7	20.0
Trichloroethene	Ave	0.6443	0.6396		0.00993	0.0100	-0.7	20.0
1,2-Dichloropropane	Ave	0.4057	0.3969		0.00978	0.0100	-2.2	20.0
Dibromomethane	Ave	0.1960	0.1889		0.00964	0.0100	-3.6	20.0
Dichlorobromomethane	Ave	0.6695	0.6549		0.00978	0.0100	-2.2	20.0
cis-1,3-Dichloropropene	Ave	2.390	2.551		0.0107	0.0100	6.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1120	0.1128		0.0403	0.0400	0.7	20.0
Toluene	Ave	1.617	1.615		0.00999	0.0100	-0.1	20.0
trans-1,3-Dichloropropene	Ave	0.3690	0.3641		0.00987	0.0100	-1.3	20.0
1,1,2-Trichloroethane	Ave	0.2234	0.2078		0.00931	0.0100	-6.9	20.0
Tetrachloroethene	Ave	2.966	3.188		0.0107	0.0100	7.5	20.0
1,3-Dichloropropane	Ave	1.637	1.633		0.00997	0.0100	-0.3	20.0
2-Hexanone	Ave	0.3213	0.3483		0.0434	0.0400	8.4	20.0
Chlorodibromomethane	Ave	2.092	2.152		0.0103	0.0100	2.8	20.0
Ethylene Dibromide	Ave	1.121	1.244		0.0111	0.0100	11.0	20.0
Chlorobenzene	Ave	4.691	4.938	0.3000	0.0105	0.0100	5.3	20.0
1,1,1,2-Tetrachloroethane	Ave	2.602	2.507		0.00964	0.0100	-3.6	20.0
Ethylbenzene	Ave	2.607	2.774		0.0106	0.0100	6.4	20.0
m-Xylene & p-Xylene	Ave	3.437	3.609		0.0105	0.0100	5.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-321369/23 Calibration Date: 04/19/2016 01:57

Instrument ID: VMS_H Calib Start Date: 04/18/2016 22:46

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 01:10

Lab File ID: H3769.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	2.969	3.025		0.0102	0.0100	1.9	20.0
Styrene	Ave	4.358	4.500		0.0103	0.0100	3.3	20.0
Bromoform	Ave	1.029	1.187	0.1000	0.0115	0.0100	15.3	20.0
Isopropylbenzene	Ave	5.960	6.177		0.0104	0.0100	3.6	20.0
Bromobenzene	Ave	1.324	1.376		0.0104	0.0100	3.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7399	0.7308	0.3000	0.00988	0.0100	-1.2	20.0
1,2,3-Trichloropropane	Ave	0.1772	0.1786		0.0101	0.0100	0.8	20.0
N-Propylbenzene	Ave	1.515	1.531		0.0101	0.0100	1.0	20.0
2-Chlorotoluene	Ave	1.176	1.187		0.0101	0.0100	0.9	20.0
1,3,5-Trimethylbenzene	Ave	4.471	4.560		0.0102	0.0100	2.0	20.0
4-Chlorotoluene	Ave	1.359	1.409		0.0104	0.0100	3.7	20.0
tert-Butylbenzene	Ave	5.109	5.224		0.0102	0.0100	2.3	20.0
1,2,4-Trimethylbenzene	Ave	4.136	4.164		0.0101	0.0100	0.7	20.0
sec-Butylbenzene	Ave	1.505	1.562		0.0104	0.0100	3.8	20.0
1,3-Dichlorobenzene	Ave	2.289	2.365		0.0103	0.0100	3.3	20.0
4-Isopropyltoluene	Ave	5.856	6.057		0.0103	0.0100	3.4	20.0
1,4-Dichlorobenzene	Ave	2.915	2.996		0.0103	0.0100	2.8	20.0
n-Butylbenzene	Ave	5.572	5.819		0.0104	0.0100	4.4	20.0
1,2-Dichlorobenzene	Ave	1.964	2.043		0.0104	0.0100	4.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1347	0.1471		0.0109	0.0100	9.1	20.0
1,2,4-Trichlorobenzene	Ave	1.295	1.477		0.0114	0.0100	14.0	20.0
Hexachlorobutadiene	Ave	1.887	2.112		0.0112	0.0100	12.0	20.0
Naphthalene	Ave	1.028	1.164		0.0113	0.0100	13.2	20.0
1,2,3-Trichlorobenzene	Ave	0.8897	1.019		0.0115	0.0100	14.6	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3769.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 19-Apr-2016 01:57:30 ALS Bottle#: 11 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: bergerb Instrument ID: VMS_H
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:20:15 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:18:33

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	3.977	3.965	0.012	96	89098	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.750	-0.005	99	830801	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.085	-0.005	89	178135	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.092	14.097	-0.005	96	313116	12.5	12.5	
28 Dichlorodifluoromethane	85	2.131	2.115	0.016	100	445058	10.0	11.5	
30 Chloromethane	50	2.253	2.237	0.016	98	184375	10.0	10.3	
32 Vinyl chloride	62	2.358	2.359	-0.001	98	233714	10.0	10.7	
35 Bromomethane	94	2.671	2.655	0.016	91	225333	10.0	10.4	
36 Chloroethane	64	2.741	2.725	0.016	99	149464	10.0	10.7	
37 Dichlorofluoromethane	67	2.897	2.899	-0.002	98	597846	10.0	10.1	
38 Trichlorofluoromethane	101	2.967	2.969	-0.001	98	656484	10.0	10.6	
40 Ethyl ether	59	3.211	3.212	-0.001	93	79497	10.0	9.09	
44 Acrolein	56	3.367	3.352	0.015	97	37896	100.0	72.8	
45 1,1-Dichloroethene	96	3.472	3.456	0.016	98	276758	10.0	9.08	
46 1,1,2-Trichloro-1,2,2-trif	151	3.489	3.491	-0.002	94	455529	10.0	9.22	
47 Acetone	43	3.507	3.491	0.016	100	47970	40.0	41.9	
48 Iodomethane	142	3.646	3.630	0.016	99	693739	10.0	8.97	
50 Carbon disulfide	76	3.716	3.717	-0.001	99	897640	10.0	8.66	
52 3-Chloro-1-propene	41	3.820	3.804	0.016	92	379181	10.0	9.04	
53 Methyl acetate	43	3.820	3.822	-0.002	97	186801	50.0	44.8	
54 Methylene Chloride	84	3.942	3.943	-0.001	94	195964	10.0	9.46	
55 2-Methyl-2-propanol	59	4.046	4.048	-0.002	96	52307	100.0	103.3	
57 Acrylonitrile	53	4.203	4.205	-0.002	99	106556	100.0	96.9	
56 Methyl tert-butyl ether	73	4.238	4.222	0.016	86	323198	10.0	9.40	
58 trans-1,2-Dichloroethene	96	4.238	4.222	0.016	100	311545	10.0	10.1	
59 Hexane	57	4.499	4.501	-0.002	94	439517	10.0	9.62	
60 1,1-Dichloroethane	63	4.691	4.675	0.015	96	480278	10.0	9.21	
61 Vinyl acetate	43	4.708	4.709	-0.001	97	370741	20.0	20.4	
66 2,2-Dichloropropane	77	5.369	5.354	0.015	85	562931	10.0	9.19	
67 2-Butanone (MEK)	43	5.369	5.354	0.015	34	85824	40.0	43.0	
65 cis-1,2-Dichloroethene	96	5.352	5.354	-0.002	83	288740	10.0	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.578	5.580	-0.002	97	143804	300.0	302.7	
73 Chlorobromomethane	128	5.648	5.632	0.016	94	114447	10.0	9.92	
74 Tetrahydrofuran	42	5.718	5.702	0.016	84	29578	20.0	18.5	
75 Chloroform	83	5.718	5.719	-0.001	94	542283	10.0	9.82	
76 1,1,1-Trichloroethane	97	5.961	5.963	-0.002	98	633182	10.0	10.0	
77 Cyclohexane	56	6.031	6.033	-0.002	88	500128	10.0	9.19	
78 1,1-Dichloropropene	75	6.153	6.154	-0.001	98	520284	10.0	9.57	
79 Carbon tetrachloride	117	6.170	6.172	-0.002	96	658559	10.0	10.1	
80 Isobutyl alcohol	41	6.275	6.276	-0.001	92	46333	250.0	266.4	
81 Benzene	78	6.414	6.416	-0.002	96	844720	10.0	9.74	
82 1,2-Dichloroethane	62	6.431	6.433	-0.002	96	171774	10.0	9.83	
84 n-Heptane	43	6.710	6.712	-0.002	94	623248	10.0	9.63	
86 Trichloroethene	95	7.215	7.216	-0.001	97	425088	10.0	9.93	
88 2-Pentanone	43	7.459	7.460	-0.001	97	373454	40.0	33.2	
89 Methylcyclohexane	55	7.476	7.478	-0.002	91	484562	10.0	9.78	
90 1,2-Dichloropropane	63	7.511	7.512	-0.001	96	263817	10.0	9.78	
92 Dibromomethane	93	7.685	7.687	-0.001	94	125533	10.0	9.64	
93 1,4-Dioxane	88	7.702	7.704	-0.002	29	13312	200.0	200.5	
94 Dichlorobromomethane	83	7.876	7.878	-0.002	99	435287	10.0	9.78	
96 2-Chloroethyl vinyl ether	63	8.277	8.278	-0.001	93	40211	10.0	10.4	
97 cis-1,3-Dichloropropene	75	8.486	8.487	-0.001	96	363545	10.0	10.7	
98 4-Methyl-2-pentanone (MIBK	43	8.712	8.696	0.016	96	299912	40.0	40.3	
99 Toluene	91	8.956	8.957	-0.001	99	1073589	10.0	9.99	
100 trans-1,3-Dichloropropene	75	9.269	9.271	-0.002	93	242025	10.0	9.87	
101 Ethyl methacrylate	69	9.391	9.393	-0.002	89	162994	10.0	10.5	
102 1,1,2-Trichloroethane	97	9.530	9.532	-0.002	91	138138	10.0	9.31	
103 Tetrachloroethene	164	9.739	9.741	-0.002	98	454267	10.0	10.7	
104 1,3-Dichloropropane	76	9.774	9.776	-0.002	90	232648	10.0	9.97	
105 2-Hexanone	43	9.913	9.915	-0.002	99	198558	40.0	43.4	
108 Chlorodibromomethane	129	10.122	10.124	-0.002	89	306609	10.0	10.3	
109 Ethylene Dibromide	107	10.314	10.315	-0.001	99	177349	10.0	11.1	
110 1-Chlorohexane	91	11.097	11.099	-0.002	97	611542	10.0	10.5	
111 Chlorobenzene	112	11.132	11.134	-0.002	93	703764	10.0	10.5	
112 1,1,1,2-Tetrachloroethane	131	11.271	11.255	0.016	94	357261	10.0	9.64	
113 Ethylbenzene	106	11.306	11.308	-0.002	98	395372	10.0	10.6	
114 m-Xylene & p-Xylene	106	11.480	11.482	-0.002	98	514299	10.0	10.5	
115 o-Xylene	106	12.055	12.056	-0.001	97	431145	10.0	10.2	
116 Styrene	104	12.090	12.074	0.016	94	641248	10.0	10.3	
117 Bromoform	173	12.333	12.335	-0.002	97	169218	10.0	11.5	
118 Isopropylbenzene	105	12.542	12.544	-0.002	96	1547230	10.0	10.4	
120 Cyclohexanone	55	12.681	12.683	-0.002	90	82685	400.0	429.0	
122 Bromobenzene	156	12.925	12.927	-0.002	95	344606	10.0	10.4	
121 1,1,2,2-Tetrachloroethane	83	12.943	12.927	0.016	95	183055	10.0	9.88	
123 1,2,3-Trichloropropane	110	12.977	12.979	-0.002	79	44741	10.0	10.1	
124 trans-1,4-Dichloro-2-buten	53	13.012	13.014	-0.002	72	38561	10.0	10.5	
125 N-Propylbenzene	120	13.065	13.066	-0.002	99	383402	10.0	10.1	
126 2-Chlorotoluene	126	13.169	13.171	-0.002	97	297250	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	13.273	13.275	-0.002	95	1142133	10.0	10.2	
128 4-Chlorotoluene	126	13.291	13.292	-0.001	98	353029	10.0	10.4	
129 tert-Butylbenzene	119	13.656	13.658	-0.002	93	1308535	10.0	10.2	
130 1,2,4-Trimethylbenzene	105	13.709	13.710	-0.001	96	1043075	10.0	10.1	
131 sec-Butylbenzene	134	13.900	13.902	-0.002	94	391331	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
132 1,3-Dichlorobenzene	146	14.022	14.024	-0.002	97	592358	10.0	10.3	
133 4-Isopropyltoluene	119	14.057	14.058	-0.001	97	1517168	10.0	10.3	
134 1,4-Dichlorobenzene	146	14.109	14.111	-0.002	96	750480	10.0	10.3	
137 n-Butylbenzene	91	14.492	14.494	-0.002	97	1457561	10.0	10.4	
138 1,2-Dichlorobenzene	146	14.509	14.511	-0.002	98	511793	10.0	10.4	
139 1,2-Dibromo-3-Chloropropan	157	15.293	15.294	-0.001	90	36837	10.0	10.9	
141 1,2,4-Trichlorobenzene	180	16.059	16.061	-0.002	95	369944	10.0	11.4	
142 Hexachlorobutadiene	225	16.198	16.200	-0.002	97	529137	10.0	11.2	
143 Naphthalene	128	16.285	16.287	-0.002	97	291617	10.0	11.3	
144 1,2,3-Trichlorobenzene	180	16.512	16.513	-0.001	96	255326	10.0	11.5	
S 151 1,2-Dichloroethene, Total	96				0		20.0	20.1	
S 149 1,2-Dichloroethene, Total	1				0		10.0	20.1	
S 150 Xylenes, Total	106				0		20.0	20.7	
S 148 1,3-Dichloropropene, Total	1				0		20.0	20.5	
S 145 Trihalomethanes, Total	1				0		40.0	41.4	
S 146 Xylenes, Total (URS)	1				0		20.0	20.7	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Main B_00014	Amount Added:	5.00	Units: uL
MV-Gas/Ket B_00026	Amount Added:	5.00	Units: uL
MV-SS 2-Cleve_00027	Amount Added:	5.00	Units: uL

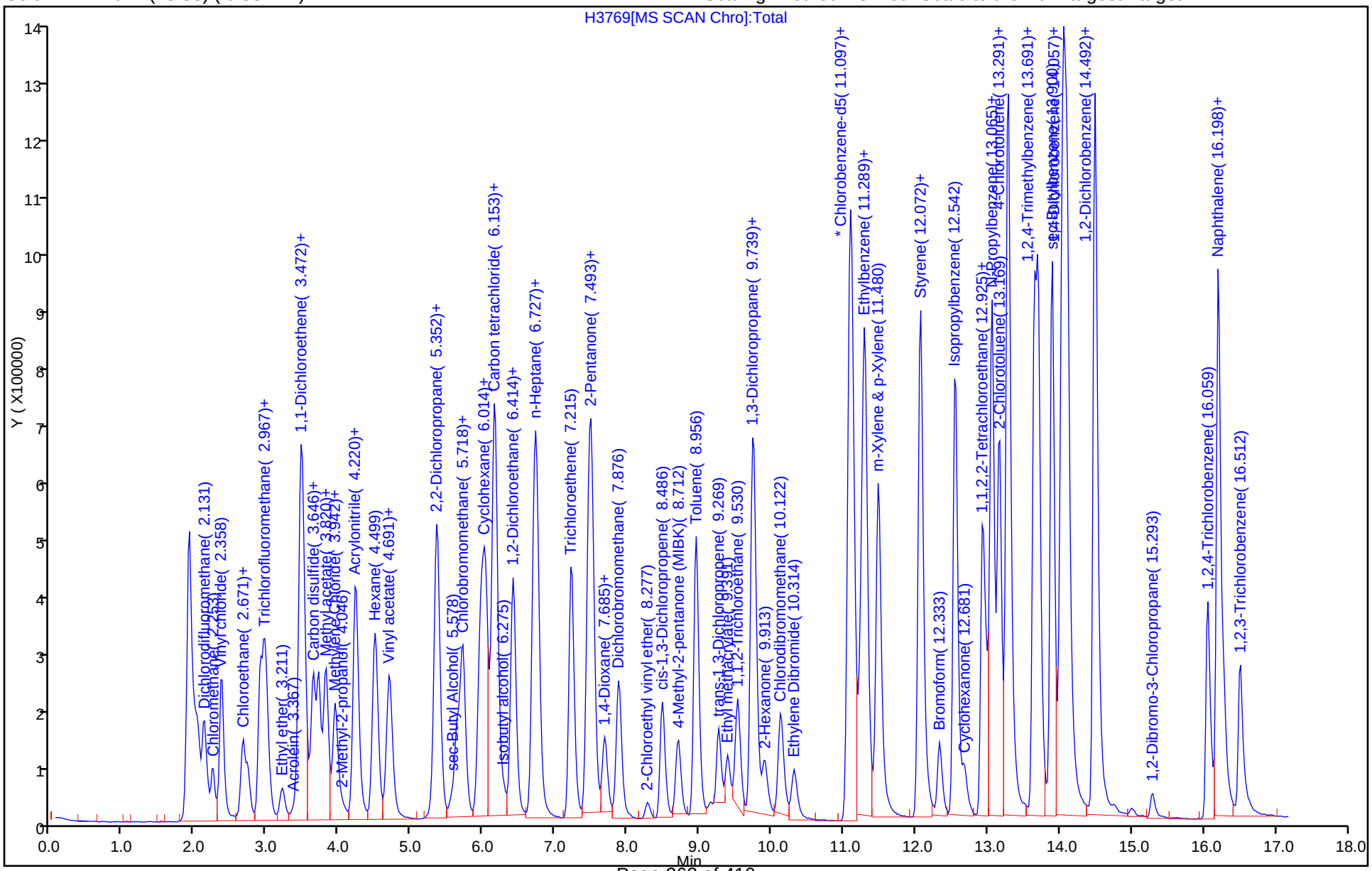
Report Date: 19-Apr-2016 09:20:29 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3769.D

Injection Date:	19-Apr-2016 01:57:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	ICV			Worklist Smp#:	23
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.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-321369/24 Calibration Date: 04/19/2016 04:41

Instrument ID: VMS_H Calib Start Date: 04/19/2016 02:20

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 04:17

Lab File ID: H3776.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	0.2959	0.3021		0.0102	0.0100	2.1	20.0
Dibromofluoromethane (Surr)	Ave	0.6022	0.6099		0.0101	0.0100	1.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2333	0.2294		0.00983	0.0100	-1.7	20.0
Toluene-d8 (Surr)	Ave	5.934	5.988		0.0101	0.0100	0.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.828	1.849		0.0101	0.0100	1.1	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3776.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 19-Apr-2016 04:41:30 ALS Bottle#: 18 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: bergerb Instrument ID: VMS_H
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 19-Apr-2016 09:20:15 Calib Date: 19-Apr-2016 04:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: seifertj Date: 19-Apr-2016 07:19:01

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	3.977	3.965	0.012	96	95984	250.0	250.0	
* 2 Fluorobenzene	96	6.745	6.750	-0.005	99	916288	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.080	11.085	-0.005	87	217515	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.091	14.097	-0.006	96	343579	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.909	5.915	-0.006	94	447067	10.0	10.1	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.327	6.333	-0.006	100	168152	10.0	9.83	
$ 10 Toluene-d8 (Surr)	98	8.851	8.857	-0.006	93	1042061	10.0	10.1	
$ 11 4-Bromofluorobenzene (Surr	95	12.751	12.739	0.012	90	508108	10.0	10.1	
34 Ethylene oxide	43	2.619	2.624	-0.005	99	85984	400.0	377.3	
39 Ethanol	45	3.158	3.147	0.011	93	22618	400.0	427.3	
43 Propene oxide	58	3.298	3.303	-0.005	96	997250	1000.0	916.5	
49 Isopropyl alcohol	45	3.628	3.634	-0.006	98	35242	100.0	124.0	
51 Acetonitrile	41	3.802	3.808	-0.006	99	30189	100.0	93.4	
62 Isopropyl ether	87	4.743	4.731	0.012	97	221481	10.0	10.2	
63 2-Chloro-1,3-butadiene	53	4.777	4.783	-0.006	89	491082	10.0	9.95	
64 Tert-butyl ethyl ether	59	5.143	5.149	-0.006	98	639009	10.0	9.42	
69 Ethyl acetate	43	5.422	5.410	0.012	99	133567	20.0	17.9	
70 Propionitrile	54	5.439	5.445	-0.006	98	44968	100.0	98.7	
72 Methacrylonitrile	41	5.613	5.619	-0.006	94	352303	100.0	96.8	
83 Tert-amyl methyl ether	73	6.536	6.542	-0.006	98	534893	10.0	9.53	
85 n-Butanol	56	7.145	7.133	0.012	89	34163	250.0	237.7	
91 Methyl methacrylate	100	7.650	7.656	-0.006	94	59866	20.0	19.6	
95 2-Nitropropane	41	8.190	8.178	0.012	96	29237	20.0	18.4	
107 Tetrahydrothiophene	60	10.105	10.111	-0.006	44	8972	NC	NC	
119 cis-1,4-Dichloro-2-butene	53	12.647	12.635	0.011	91	65249	20.0	18.9	
135 1,2,3-Trimethylbenzene	105	14.161	14.167	-0.006	99	1046596	10.0	10.3	
140 1,3,5-Trichlorobenzene	180	15.484	15.490	-0.006	98	620792	10.0	10.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Supp B_00012	Amount Added:	5.00	Units: uL
MV-ARCH SS A_00066	Amount Added:	0.80	Units: uL

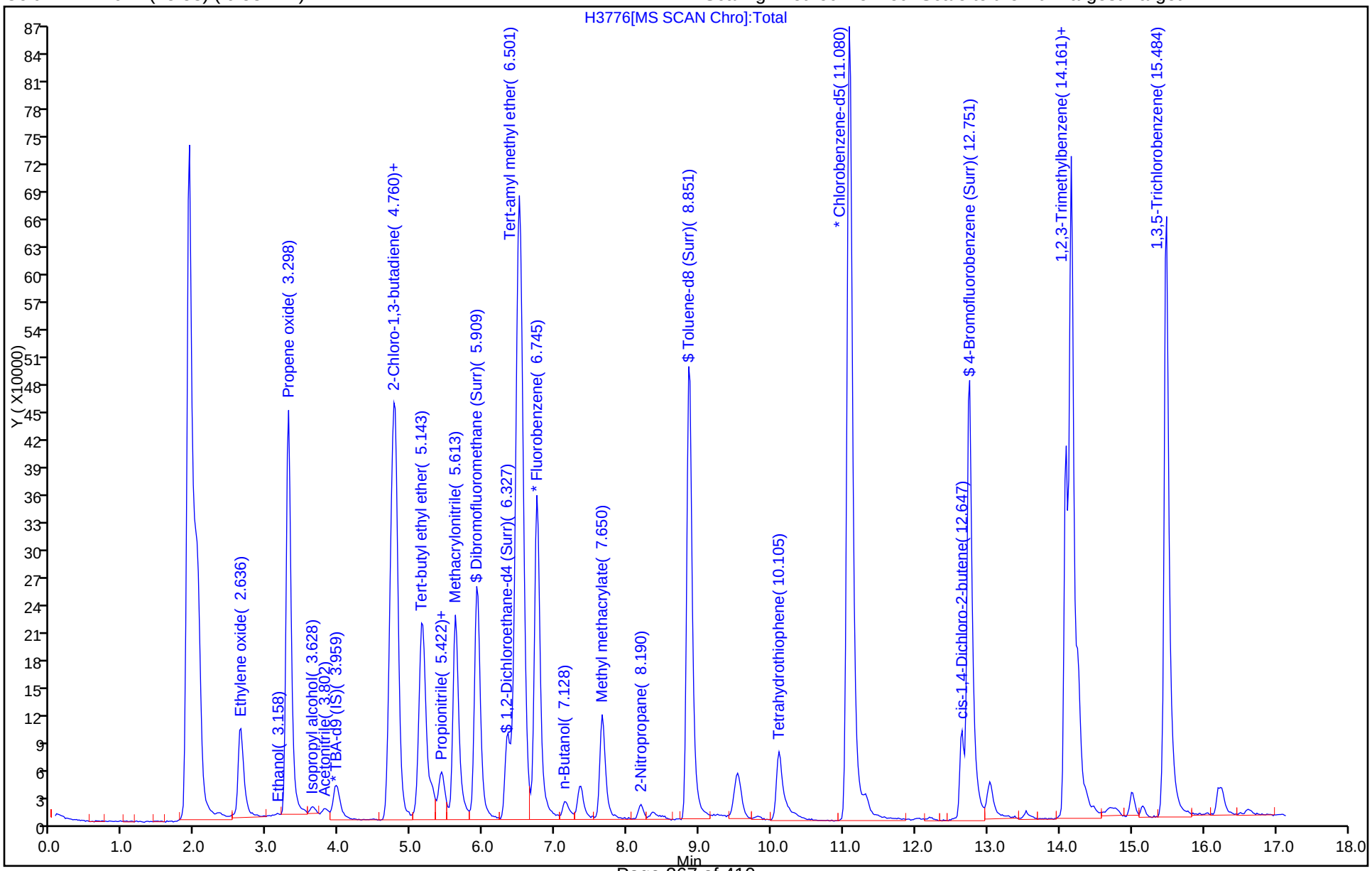
Report Date: 19-Apr-2016 09:20:34 Chrom Revision: 2.2 18-Apr-2016 13:22:44

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3776.D

Injection Date:	19-Apr-2016 04:41:30	Instrument ID:	VMS_H	Operator ID:	bergerb
Lims ID:	ICV			Worklist Smp#:	24
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
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.: 280-82226-1

SDG No.:

Lab Sample ID: ICV 280-321696/16 Calibration Date: 04/20/2016 15:31

Instrument ID: VMS_H Calib Start Date: 04/20/2016 12:45

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/20/2016 14:43

Lab File ID: H3861.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
Dibromofluoromethane (Surr)	Ave	0.6144	0.6068		0.00988	0.0100	-1.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2406	0.2352		0.00978	0.0100	-2.2	20.0
Toluene-d8 (Surr)	Ave	5.617	5.338		0.00950	0.0100	-5.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.818	1.662		0.00914	0.0100	-8.6	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3861.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 20-Apr-2016 15:31:30 ALS Bottle#: 13 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: wickhamt Instrument ID: VMS_H
Sublist:

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 20-Apr-2016 21:46:31 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK032

First Level Reviewer: bergerb Date: 20-Apr-2016 21:32:57

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	97	101721	250.0	250.0	
* 2 Fluorobenzene	96	6.763	6.780	-0.017	98	962862	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.116	11.115	0.001	86	239757	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.110	14.110	0.000	96	361971	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.944	-0.016	93	467426	10.0	9.88	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.363	6.362	0.001	99	181203	10.0	9.78	
$ 10 Toluene-d8 (Surr)	98	8.887	8.887	0.000	93	1023901	10.0	9.50	
$ 11 4-Bromofluorobenzene (Surr	95	12.770	12.769	0.001	89	481286	10.0	9.14	

Reagents:

MV-568718-D_00006 Amount Added: 1.00 Units: uL
MV-ARCH SS A_00066 Amount Added: 0.80 Units: uL

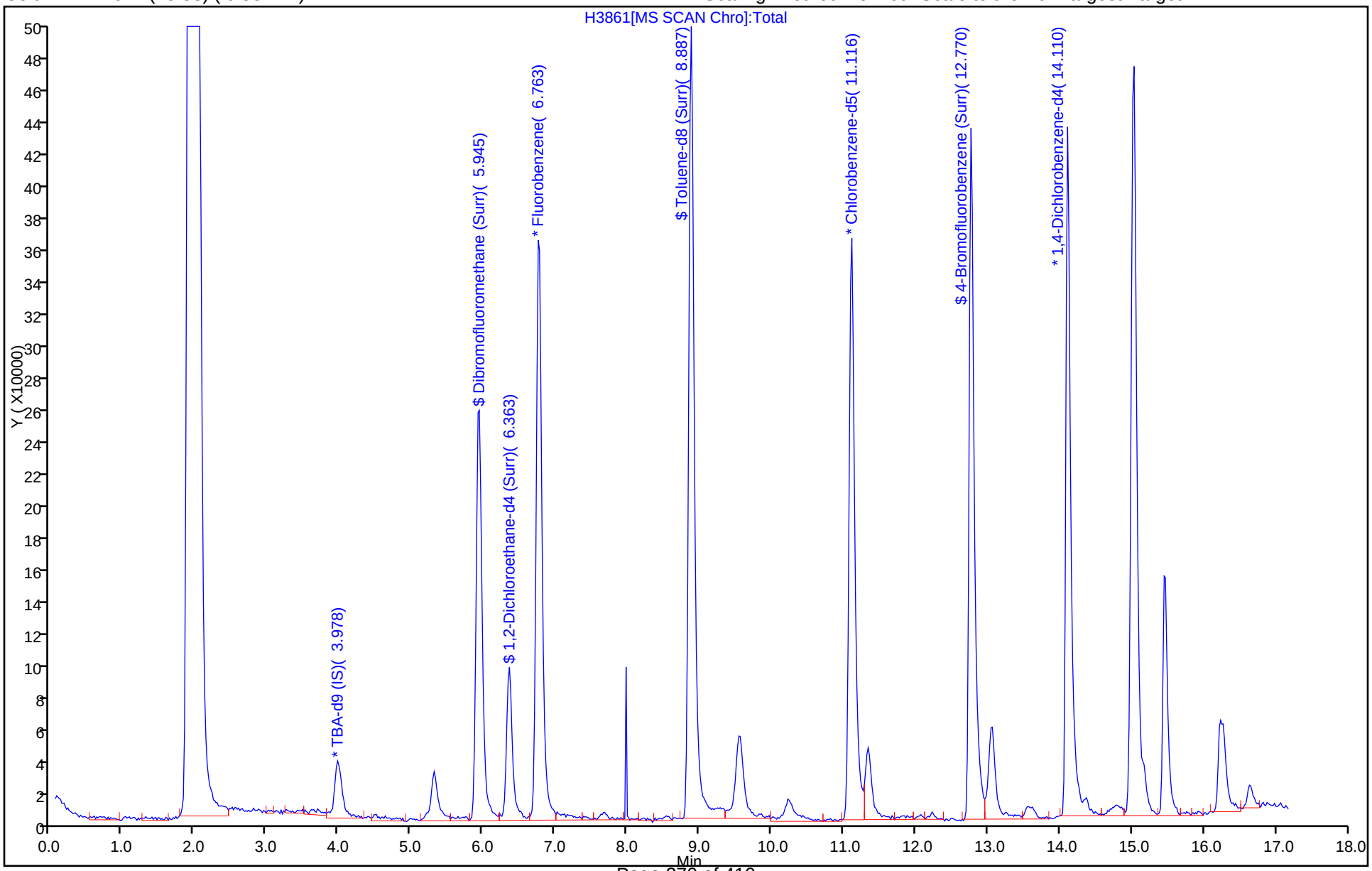
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3861.D

Injection Date:	20-Apr-2016 15:31:30	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#:	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



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323371/2 Calibration Date: 05/01/2016 07:36

Instrument ID: VMS_H Calib Start Date: 04/18/2016 22:46

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 01:10

Lab File ID: H4360.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	0.5809	0.6041		0.0104	0.0100	4.0	20.0
Chloromethane	Ave	0.2703	0.3099	0.1000	0.0115	0.0100	14.6	20.0
Vinyl chloride	Ave	0.3278	0.3660		0.0112	0.0100	11.7	20.0
Bromomethane	Ave	0.3268	0.2984		0.00913	0.0100	-8.7	20.0
Chloroethane	Ave	0.2103	0.2175		0.0103	0.0100	3.4	20.0
Trichlorofluoromethane	Ave	0.9282	0.8357		0.00900	0.0100	-10.0	20.0
1,1-Dichloroethene	Ave	0.4587	0.3808		0.00830	0.0100	-17.0	20.0
Acetone	Ave	0.0172	0.0162		0.0375	0.0400	-6.2	20.0
Carbon disulfide	Ave	1.559	1.318		0.00845	0.0100	-15.5	20.0
Methylene Chloride	Lin2		0.2971		0.00954	0.0100	-4.6	20.0
Methyl tert-butyl ether	Ave	0.5175	0.4736		0.00915	0.0100	-8.5	20.0
trans-1,2-Dichloroethene	Ave	0.4641	0.4445		0.00958	0.0100	-4.2	20.0
1,1-Dichloroethane	Ave	0.7843	0.7942	0.1000	0.0101	0.0100	1.3	20.0
2,2-Dichloropropane	Ave	0.9216	0.8326		0.00903	0.0100	-9.7	20.0
2-Butanone (MEK)	Ave	0.0300	0.0342		0.0455	0.0400	13.8	20.0
cis-1,2-Dichloroethene	Ave	0.4344	0.4136		0.00952	0.0100	-4.8	20.0
Chlorobromomethane	Ave	0.1736	0.1669		0.00962	0.0100	-3.8	20.0
Chloroform	Ave	0.8307	0.7580		0.00913	0.0100	-8.7	20.0
1,1,1-Trichloroethane	Ave	0.9516	0.8561		0.00900	0.0100	-10.0	20.0
1,1-Dichloropropene	Ave	0.8179	0.7953		0.00972	0.0100	-2.8	20.0
Carbon tetrachloride	Ave	0.9798	0.8903		0.00909	0.0100	-9.1	20.0
Benzene	Ave	1.304	1.309		0.0100	0.0100	0.4	20.0
1,2-Dichloroethane	Ave	0.2630	0.2614		0.00994	0.0100	-0.6	20.0
Trichloroethene	Ave	0.6443	0.5765		0.00895	0.0100	-10.5	20.0
1,2-Dichloropropane	Ave	0.4057	0.4130		0.0102	0.0100	1.8	20.0
Dibromomethane	Ave	0.1960	0.1747		0.00891	0.0100	-10.9	20.0
Dichlorobromomethane	Ave	0.6695	0.5993		0.00895	0.0100	-10.5	20.0
cis-1,3-Dichloropropene	Ave	2.390	2.215		0.00927	0.0100	-7.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1120	0.1295		0.0462	0.0400	15.6	20.0
Toluene	Ave	1.617	1.524		0.00942	0.0100	-5.8	20.0
trans-1,3-Dichloropropene	Ave	0.3690	0.3693		0.0100	0.0100	0.0	20.0
1,1,2-Trichloroethane	Ave	0.2234	0.1972		0.00883	0.0100	-11.7	20.0
Tetrachloroethene	Ave	2.966	2.421		0.00816	0.0100	-18.4	20.0
1,3-Dichloropropane	Ave	1.637	1.460		0.00892	0.0100	-10.8	20.0
2-Hexanone	Ave	0.3213	0.3423		0.0426	0.0400	6.5	20.0
Chlorodibromomethane	Ave	2.092	1.727		0.00826	0.0100	-17.4	20.0
Ethylene Dibromide	Ave	1.121	1.042		0.00929	0.0100	-7.1	20.0
Chlorobenzene	Ave	4.691	4.376	0.3000	0.00933	0.0100	-6.7	20.0
1,1,1,2-Tetrachloroethane	Ave	2.602	2.042		0.00785	0.0100	-21.5*	20.0
Ethylbenzene	Ave	2.607	2.413		0.00925	0.0100	-7.5	20.0
m-Xylene & p-Xylene	Ave	3.437	3.225		0.00938	0.0100	-6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323371/2 Calibration Date: 05/01/2016 07:36

Instrument ID: VMS_H Calib Start Date: 04/18/2016 22:46

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 01:10

Lab File ID: H4360.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	2.969	2.741		0.00923	0.0100	-7.7	20.0
Styrene	Ave	4.358	3.875		0.00889	0.0100	-11.1	20.0
Bromoform	Ave	1.029	0.8642	0.1000	0.00840	0.0100	-16.0	20.0
Isopropylbenzene	Ave	5.960	5.718		0.00959	0.0100	-4.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7399	0.6415	0.3000	0.00867	0.0100	-13.3	20.0
Bromobenzene	Ave	1.324	1.108		0.00837	0.0100	-16.3	20.0
1,2,3-Trichloropropane	Ave	0.1772	0.1567		0.00884	0.0100	-11.6	20.0
N-Propylbenzene	Ave	1.515	1.531		0.0101	0.0100	1.0	20.0
2-Chlorotoluene	Ave	1.176	1.157		0.00984	0.0100	-1.6	20.0
1,3,5-Trimethylbenzene	Ave	4.471	4.261		0.00953	0.0100	-4.7	20.0
4-Chlorotoluene	Ave	1.359	1.234		0.00908	0.0100	-9.2	20.0
tert-Butylbenzene	Ave	5.109	4.942		0.00967	0.0100	-3.3	20.0
1,2,4-Trimethylbenzene	Ave	4.136	3.913		0.00946	0.0100	-5.4	20.0
sec-Butylbenzene	Ave	1.505	1.373		0.00912	0.0100	-8.8	20.0
1,3-Dichlorobenzene	Ave	2.289	1.849		0.00808	0.0100	-19.2	20.0
4-Isopropyltoluene	Ave	5.856	5.793		0.00989	0.0100	-1.1	20.0
1,4-Dichlorobenzene	Ave	2.915	2.631		0.00902	0.0100	-9.8	20.0
n-Butylbenzene	Ave	5.572	5.147		0.00924	0.0100	-7.6	20.0
1,2-Dichlorobenzene	Ave	1.964	1.689		0.00860	0.0100	-14.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1347	0.1143		0.00848	0.0100	-15.2	20.0
1,2,4-Trichlorobenzene	Ave	1.295	1.211		0.00935	0.0100	-6.5	20.0
Hexachlorobutadiene	Ave	1.887	1.623		0.00860	0.0100	-14.0	20.0
Naphthalene	Ave	1.028	0.9542		0.00928	0.0100	-7.2	20.0
1,2,3-Trichlorobenzene	Ave	0.8897	0.8403		0.00944	0.0100	-5.6	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4360.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-May-2016 07:36:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv m
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub52

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:31:06 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 08:21:39

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	3.967	3.967	0.000	84	87689	250.0	250.0	
* 2 Fluorobenzene	96	6.752	6.752	0.000	98	848972	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.087	11.087	0.000	88	204961	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.099	14.099	0.000	97	326020	12.5	12.5	
28 Dichlorodifluoromethane	85	2.121	2.121	0.000	100	410276	10.0	10.4	
30 Chloromethane	50	2.243	2.243	0.000	98	210446	10.0	11.5	
32 Vinyl chloride	62	2.365	2.365	0.000	98	248587	10.0	11.2	
35 Bromomethane	94	2.661	2.661	0.000	90	202690	10.0	9.13	
36 Chloroethane	64	2.731	2.731	0.000	99	147731	10.0	10.3	
37 Dichlorofluoromethane	67	2.905	2.905	0.000	97	591912	10.0	9.80	
38 Trichlorofluoromethane	101	2.974	2.974	0.000	98	567557	10.0	9.00	
40 Ethyl ether	59	3.218	3.218	0.000	93	83694	10.0	9.37	
44 Acrolein	56	3.375	3.375	0.000	99	45160	100.0	84.9	
45 1,1-Dichloroethene	96	3.479	3.479	0.000	97	258620	10.0	8.30	
46 1,1,2-Trichloro-1,2,2-trif	151	3.497	3.497	0.000	97	373985	10.0	7.41	
47 Acetone	43	3.514	3.514	0.000	29	43926	40.0	37.5	
48 Iodomethane	142	3.636	3.636	0.000	99	570478	10.0	7.22	
50 Carbon disulfide	76	3.723	3.723	0.000	99	895245	10.0	8.45	
52 3-Chloro-1-propene	41	3.810	3.810	0.000	92	391498	10.0	9.14	
53 Methyl acetate	43	3.827	3.827	0.000	96	194404	50.0	45.6	
54 Methylene Chloride	84	3.949	3.949	0.000	95	201758	10.0	9.54	
55 2-Methyl-2-propanol	59	4.071	4.071	0.000	91	47813	100.0	95.9	
57 Acrylonitrile	53	4.211	4.211	0.000	98	113554	100.0	101.1	
56 Methyl tert-butyl ether	73	4.228	4.228	0.000	73	321647	10.0	9.15	
58 trans-1,2-Dichloroethene	96	4.228	4.228	0.000	97	301903	10.0	9.58	
59 Hexane	57	4.506	4.506	0.000	95	480618	10.0	9.14	
60 1,1-Dichloroethane	63	4.681	4.681	0.000	96	539369	10.0	10.1	
61 Vinyl acetate	43	4.715	4.715	0.000	97	418517	20.0	22.6	
65 cis-1,2-Dichloroethene	96	5.360	5.360	0.000	85	280889	10.0	9.52	
66 2,2-Dichloropropane	77	5.360	5.360	0.000	86	565465	10.0	9.03	
67 2-Butanone (MEK)	43	5.360	5.360	0.000	36	92809	40.0	45.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
71 sec-Butyl Alcohol	45	5.586	5.586	0.000	96	70300	150.0	150.3	
73 Chlorobromomethane	128	5.638	5.638	0.000	96	113381	10.0	9.62	
74 Tetrahydrofuran	42	5.708	5.708	0.000	36	31938	20.0	19.5	
75 Chloroform	83	5.725	5.725	0.000	94	514822	10.0	9.13	
76 1,1,1-Trichloroethane	97	5.969	5.969	0.000	99	581450	10.0	9.00	
77 Cyclohexane	56	6.039	6.039	0.000	92	563515	10.0	10.1	
78 1,1-Dichloropropene	75	6.160	6.160	0.000	97	540158	10.0	9.72	
79 Carbon tetrachloride	117	6.178	6.178	0.000	97	604654	10.0	9.09	
80 Isobutyl alcohol	41	6.282	6.282	0.000	93	47665	250.0	278.4	
81 Benzene	78	6.404	6.404	0.000	96	889224	10.0	10.0	
82 1,2-Dichloroethane	62	6.422	6.422	0.000	96	177523	10.0	9.94	
84 n-Heptane	43	6.700	6.700	0.000	95	698317	10.0	10.6	
86 Trichloroethene	95	7.222	7.222	0.000	97	391567	10.0	8.95	
88 2-Pentanone	43	7.466	7.466	0.000	97	248945	20.0	21.6	
89 Methylcyclohexane	55	7.484	7.484	0.000	93	531733	10.0	10.5	
90 1,2-Dichloropropane	63	7.518	7.518	0.000	91	280490	10.0	10.2	
92 Dibromomethane	93	7.675	7.675	0.000	96	118634	10.0	8.91	
93 1,4-Dioxane	88	7.710	7.710	0.000	30	10624	200.0	159.5	
94 Dichlorobromomethane	83	7.884	7.884	0.000	99	407038	10.0	8.95	
96 2-Chloroethyl vinyl ether	63	8.284	8.284	0.000	91	44560	10.0	11.1	
97 cis-1,3-Dichloropropene	75	8.493	8.493	0.000	96	363197	10.0	9.27	
98 4-Methyl-2-pentanone (MIBK	43	8.702	8.702	0.000	97	351745	40.0	46.2	
99 Toluene	91	8.963	8.963	0.000	98	1035206	10.0	9.42	
100 trans-1,3-Dichloropropene	75	9.259	9.259	0.000	91	250835	10.0	10.0	
101 Ethyl methacrylate	69	9.399	9.399	0.000	89	166411	10.0	9.27	
102 1,1,2-Trichloroethane	97	9.538	9.538	0.000	92	133962	10.0	8.83	
103 Tetrachloroethene	164	9.747	9.747	0.000	97	396904	10.0	8.16	
104 1,3-Dichloropropane	76	9.782	9.782	0.000	88	239454	10.0	8.92	
105 2-Hexanone	43	9.903	9.903	0.000	98	224478	40.0	42.6	
108 Chlorodibromomethane	129	10.130	10.130	0.000	90	283227	10.0	8.26	
109 Ethylene Dibromide	107	10.321	10.321	0.000	100	170776	10.0	9.29	
110 1-Chlorohexane	91	11.087	11.087	0.000	92	289422	5.00	4.32	
111 Chlorobenzene	112	11.122	11.122	0.000	93	717528	10.0	9.33	
112 1,1,1,2-Tetrachloroethane	131	11.261	11.261	0.000	96	334762	10.0	7.85	
113 Ethylbenzene	106	11.296	11.296	0.000	99	395671	10.0	9.25	
114 m-Xylene & p-Xylene	106	11.488	11.488	0.000	100	528850	10.0	9.38	
115 o-Xylene	106	12.062	12.062	0.000	97	449483	10.0	9.23	
116 Styrene	104	12.080	12.080	0.000	94	635389	10.0	8.89	
117 Bromoform	173	12.341	12.341	0.000	97	141709	10.0	8.40	
118 Isopropylbenzene	105	12.550	12.550	0.000	96	1491374	10.0	9.59	
120 Cyclohexanone	55	12.689	12.689	0.000	90	90308	400.0	407.3	
121 1,1,2,2-Tetrachloroethane	83	12.933	12.933	0.000	63	167312	10.0	8.67	
122 Bromobenzene	156	12.933	12.933	0.000	94	289085	10.0	8.37	
123 1,2,3-Trichloropropane	110	12.985	12.985	0.000	79	40862	10.0	8.84	
124 trans-1,4-Dichloro-2-buten	53	13.002	13.002	0.000	61	40805	10.0	10.7	
125 N-Propylbenzene	120	13.072	13.072	0.000	98	399180	10.0	10.1	
126 2-Chlorotoluene	126	13.159	13.159	0.000	97	301650	10.0	9.84	
127 1,3,5-Trimethylbenzene	105	13.281	13.281	0.000	95	1111376	10.0	9.53	
128 4-Chlorotoluene	126	13.298	13.298	0.000	99	321942	10.0	9.08	
129 tert-Butylbenzene	119	13.646	13.646	0.000	95	1288884	10.0	9.67	
130 1,2,4-Trimethylbenzene	105	13.699	13.699	0.000	96	1020620	10.0	9.46	
131 sec-Butylbenzene	134	13.890	13.890	0.000	94	358089	10.0	9.12	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.012	14.012	0.000	96	482371	10.0	8.08	
133 4-Isopropyltoluene	119	14.047	14.047	0.000	98	1510794	10.0	9.89	
134 1,4-Dichlorobenzene	146	14.117	14.117	0.000	93	686110	10.0	9.02	
137 n-Butylbenzene	91	14.482	14.482	0.000	97	1342513	10.0	9.24	
138 1,2-Dichlorobenzene	146	14.500	14.500	0.000	96	440460	10.0	8.60	
139 1,2-Dibromo-3-Chloropropan	157	15.283	15.283	0.000	87	29804	10.0	8.48	
141 1,2,4-Trichlorobenzene	180	16.049	16.049	0.000	94	315765	10.0	9.35	
142 Hexachlorobutadiene	225	16.206	16.206	0.000	97	423384	10.0	8.60	
143 Naphthalene	128	16.275	16.275	0.000	97	248857	10.0	9.28	
144 1,2,3-Trichlorobenzene	180	16.502	16.502	0.000	95	219161	10.0	9.44	
S 151 1,2-Dichloroethene, Total	96				0		20.0	19.1	
S 145 Trihalomethanes, Total	1				0		40.0	34.7	
S 146 Xylenes, Total (URS)	1				0		20.0	18.6	
S 148 1,3-Dichloropropene, Total	1				0		20.0	19.3	
S 149 1,2-Dichloroethene, Total	1				0		20.0	19.1	
S 150 Xylenes, Total	106				0		20.0	18.6	

Reagents:

MV-Main A_00026	Amount Added:	5.00	Units: uL
MV-2cleve+AVA_00016	Amount Added:	5.00	Units: uL
MV-568718-D_00006	Amount Added:	1.00	Units: uL
MV-Gas/Ket A_00045	Amount Added:	5.00	Units: uL

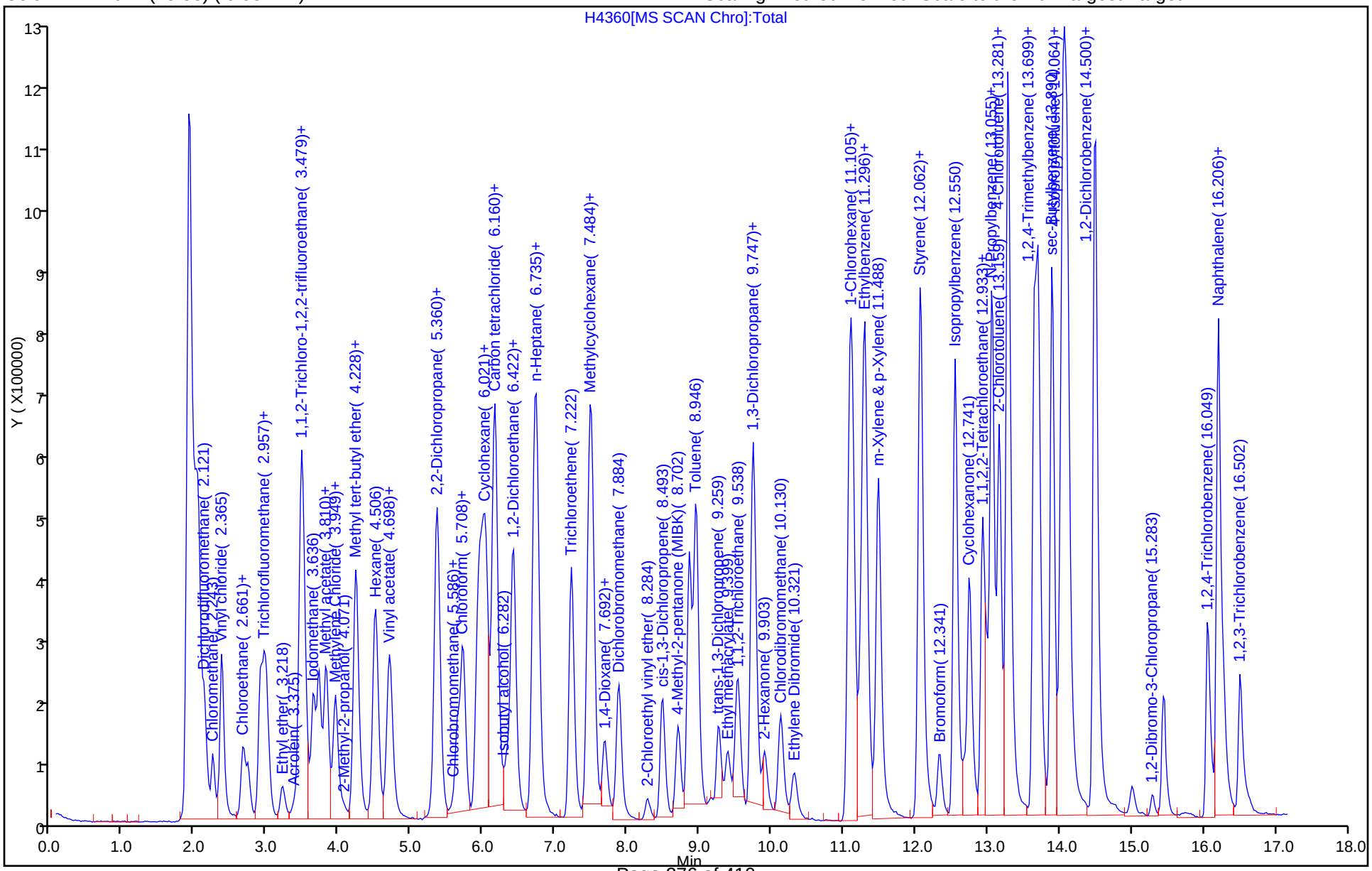
Report Date: 02-May-2016 05:31:08 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4360.D

Injection Date:	01-May-2016 07:36:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
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.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323371/3 Calibration Date: 05/01/2016 08:00

Instrument ID: VMS_H Calib Start Date: 04/19/2016 02:20

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/19/2016 04:17

Lab File ID: H4361.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	0.2959	0.2745		0.0116	0.0125	-7.2	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4361.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-May-2016 08:00:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv s
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:31:11 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 08:23:35

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	3.978	3.978	0.000	96	97589	250.0	250.0	
* 2 Fluorobenzene	96	6.746	6.746	0.000	99	773711	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.081	11.081	0.000	88	200592	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.093	0.000	97	289545	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.928	0.000	94	336483	9.00	8.85	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.346	6.346	0.000	100	139174	9.00	9.34	
$ 10 Toluene-d8 (Surr)	98	8.870	8.870	0.000	93	760054	9.00	8.43	
$ 11 4-Bromofluorobenzene (Surr	95	12.753	12.753	0.000	96	369946	9.00	8.79	
34 Ethylene oxide	43	2.638	2.638	0.000	99	76053	400.0	395.2	
39 Ethanol	45	3.143	3.143	0.000	87	24005	500.0	557.8	
43 Propene oxide	58	3.299	3.299	0.000	96	950540	1000.0	1034.6	
49 Isopropyl alcohol	45	3.630	3.630	0.000	98	29869	100.0	124.5	
51 Acetonitrile	41	3.804	3.804	0.000	99	38382	125.0	140.6	
62 Isopropyl ether	87	4.744	4.744	0.000	98	212384	12.5	11.6	
63 2-Chloro-1,3-butadiene	53	4.797	4.797	0.000	90	422258	10.0	10.1	
64 Tert-butyl ethyl ether	59	5.162	5.162	0.000	99	730155	12.5	12.7	
69 Ethyl acetate	43	5.423	5.423	0.000	99	145086	20.0	23.1	
70 Propionitrile	54	5.458	5.458	0.000	98	56858	125.0	147.7	
72 Methacrylonitrile	41	5.615	5.615	0.000	94	356968	100.0	116.2	
83 Tert-amyl methyl ether	73	6.537	6.537	0.000	98	597380	12.5	12.6	
85 n-Butanol	56	7.147	7.147	0.000	89	34748	250.0	286.4	
91 Methyl methacrylate	100	7.669	7.669	0.000	95	48527	20.0	18.8	
95 2-Nitropropane	41	8.191	8.191	0.000	97	27550	20.0	20.5	
107 Tetrahydrothiophene	60	10.124	10.124	0.000	44	7482	NC	NC	
119 cis-1,4-Dichloro-2-butene	53	12.648	12.648	0.000	91	68571	20.0	23.5	
135 1,2,3-Trimethylbenzene	105	14.163	14.163	0.000	98	810956	10.0	9.47	
140 1,3,5-Trichlorobenzene	180	15.486	15.486	0.000	97	446629	10.0	9.15	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Supp A_00018	Amount Added:	5.00	Units: uL	
MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

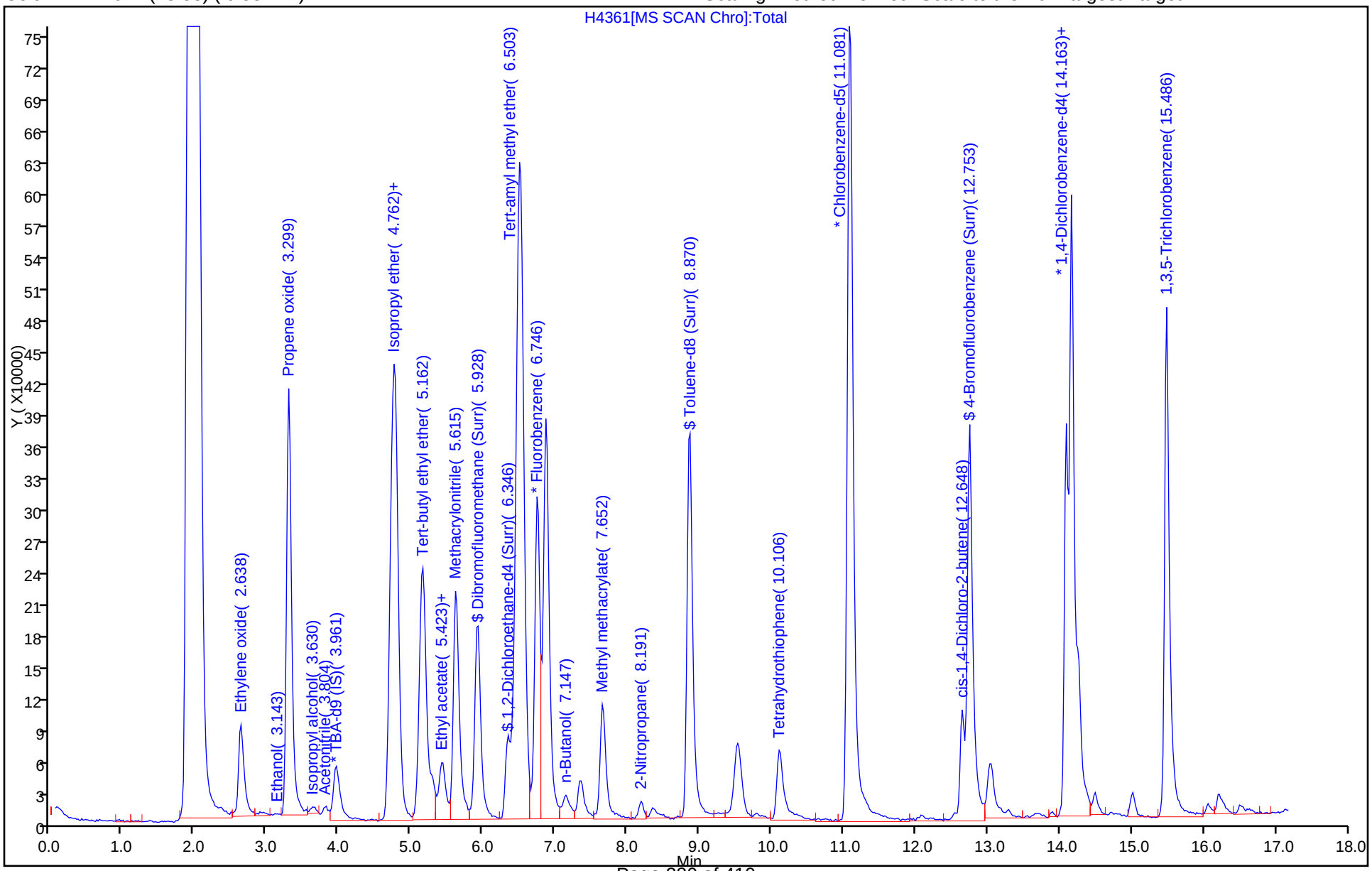
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4361.D

Injection Date:	01-May-2016 08:00:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
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.: 280-82226-1

SDG No.:

Lab Sample ID: CCV 280-323371/3 Calibration Date: 05/01/2016 08:00

Instrument ID: VMS_H Calib Start Date: 04/20/2016 12:45

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 04/20/2016 14:43

Lab File ID: H4361.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
Dibromofluoromethane (Surr)	Ave	0.6144	0.6040		0.00885	0.00900	-1.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2406	0.2498		0.00934	0.00900	3.8	20.0
Toluene-d8 (Surr)	Ave	5.617	5.263		0.00843	0.00900	-6.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.818	1.775		0.00879	0.00900	-2.4	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4361.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 01-May-2016 08:00:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ccv s
Operator ID: wickhamt Instrument ID: VMS_H
Sublist: chrom-AQ_VMSH_8260*sub86

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:31:11 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 08:23:35

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	3.978	3.978	0.000	96	97589	250.0	250.0	
* 2 Fluorobenzene	96	6.746	6.746	0.000	99	773711	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.081	11.081	0.000	88	200592	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.093	0.000	97	289545	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.928	0.000	94	336483	9.00	8.85	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.346	6.346	0.000	100	139174	9.00	9.34	
$ 10 Toluene-d8 (Surr)	98	8.870	8.870	0.000	93	760054	9.00	8.43	
$ 11 4-Bromofluorobenzene (Surr	95	12.753	12.753	0.000	96	369946	9.00	8.79	
34 Ethylene oxide	43	2.638	2.638	0.000	99	76053	400.0	395.2	
39 Ethanol	45	3.143	3.143	0.000	87	24005	500.0	557.8	
43 Propene oxide	58	3.299	3.299	0.000	96	950540	1000.0	1034.6	
49 Isopropyl alcohol	45	3.630	3.630	0.000	98	29869	100.0	124.5	
51 Acetonitrile	41	3.804	3.804	0.000	99	38382	125.0	140.6	
62 Isopropyl ether	87	4.744	4.744	0.000	98	212384	12.5	11.6	
63 2-Chloro-1,3-butadiene	53	4.797	4.797	0.000	90	422258	10.0	10.1	
64 Tert-butyl ethyl ether	59	5.162	5.162	0.000	99	730155	12.5	12.7	
69 Ethyl acetate	43	5.423	5.423	0.000	99	145086	20.0	23.1	
70 Propionitrile	54	5.458	5.458	0.000	98	56858	125.0	147.7	
72 Methacrylonitrile	41	5.615	5.615	0.000	94	356968	100.0	116.2	
83 Tert-amyl methyl ether	73	6.537	6.537	0.000	98	597380	12.5	12.6	
85 n-Butanol	56	7.147	7.147	0.000	89	34748	250.0	286.4	
91 Methyl methacrylate	100	7.669	7.669	0.000	95	48527	20.0	18.8	
95 2-Nitropropane	41	8.191	8.191	0.000	97	27550	20.0	20.5	
107 Tetrahydrothiophene	60	10.124	10.124	0.000	44	7482	NC	NC	
119 cis-1,4-Dichloro-2-butene	53	12.648	12.648	0.000	91	68571	20.0	23.5	
135 1,2,3-Trimethylbenzene	105	14.163	14.163	0.000	98	810956	10.0	9.47	
140 1,3,5-Trichlorobenzene	180	15.486	15.486	0.000	97	446629	10.0	9.15	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MV-Supp A_00018	Amount Added:	5.00	Units: uL	
MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

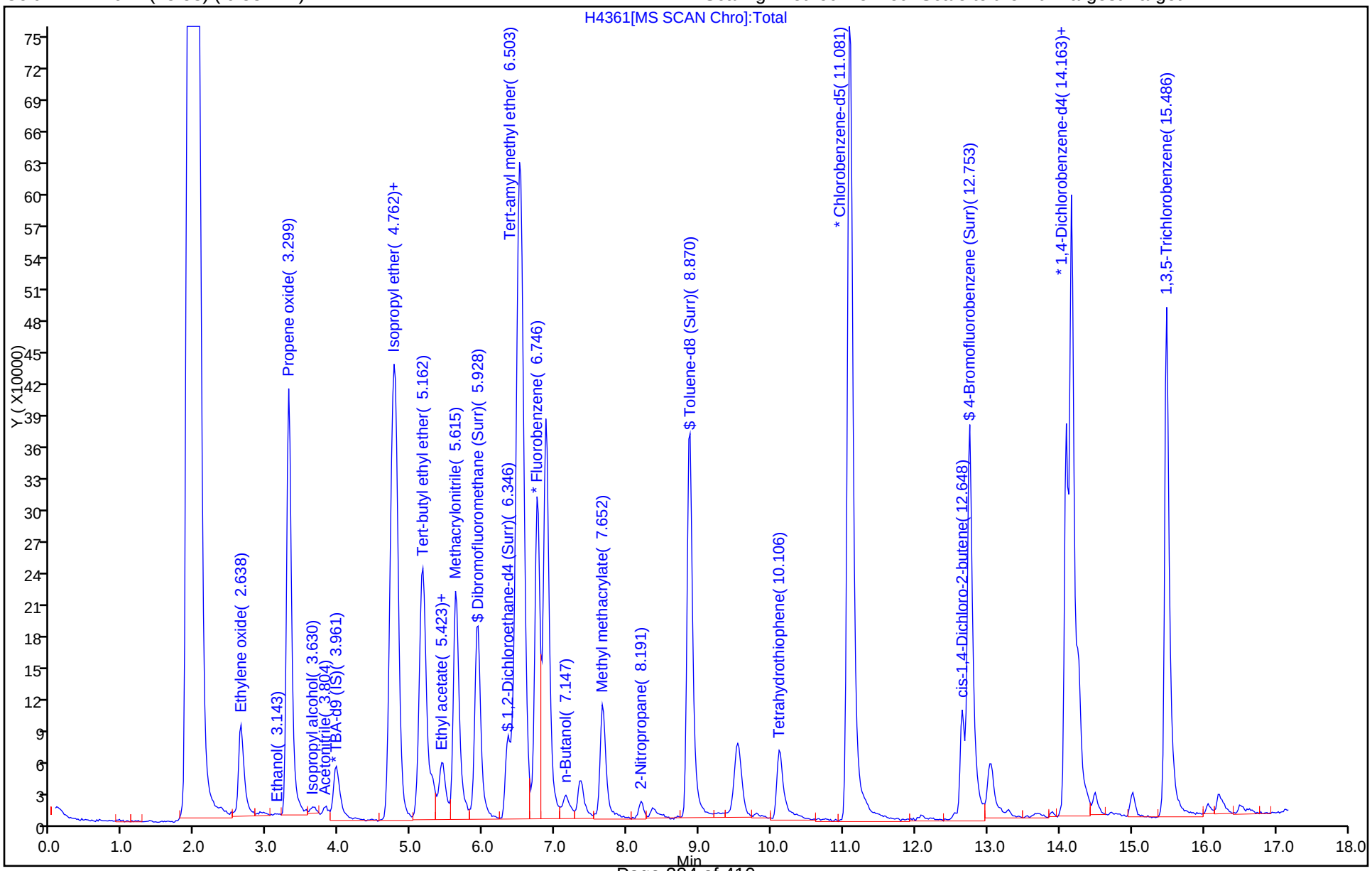
Report Date: 02-May-2016 05:31:12 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4361.D

Injection Date:	01-May-2016 08:00:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
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:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	12-Apr-2016 09:04:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	ilczyszynd	Instrument ID:	VMS_G2		
Method:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	13-Apr-2016 05:42:17	Calib Date:	12-Apr-2016 14:49:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	XAWRK052				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	4.498	4.498	0.000	80	112742	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

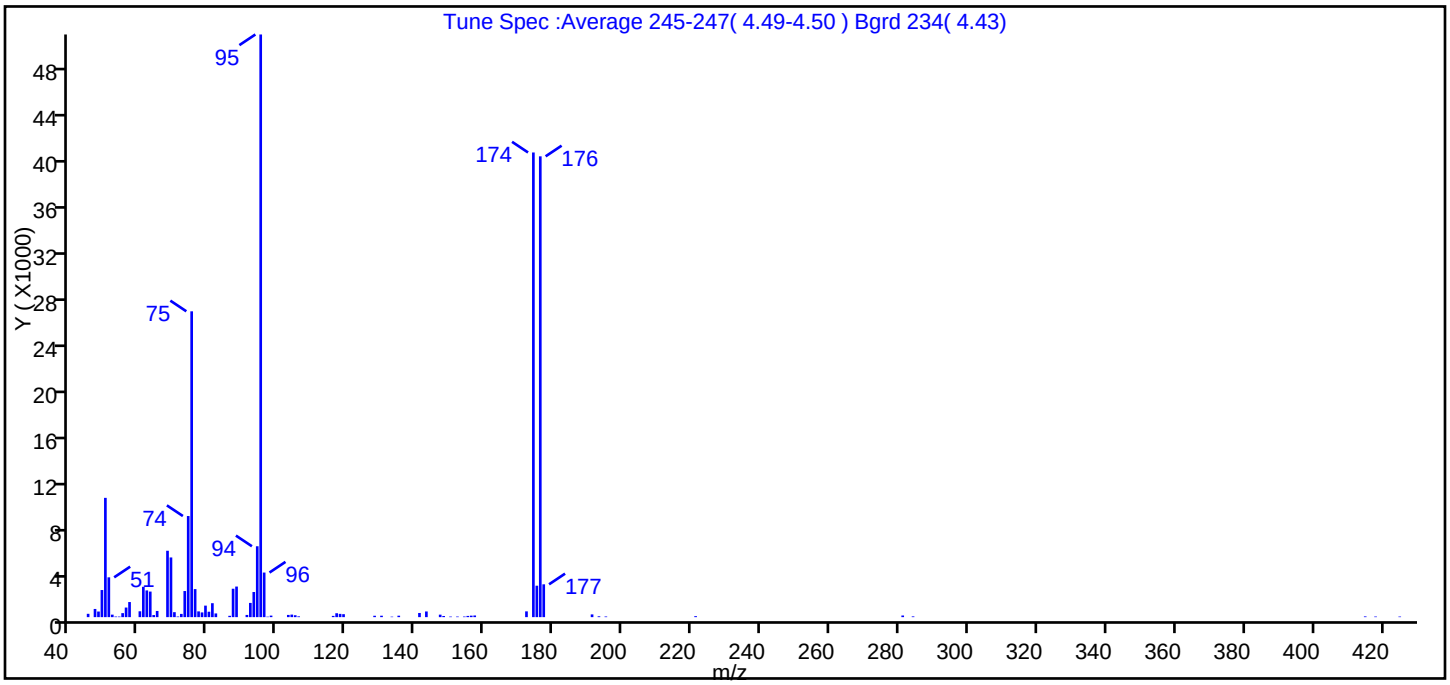
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D
Injection Date: 12-Apr-2016 09:04:30 Instrument ID: VMS_G2
Lims ID: BFB
Client ID:
Operator ID: ilczyszynd ALS Bottle#: 100 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.5
75	30 to 60% of m/z 95	52.5
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.7
175	5 to 9% of m/z 174	5.4 (6.8)
176	Greater than 95% but less than 101% of m/z 174	79.1 (99.2)
177	5 to 9% of m/z 176	5.6 (7.1)

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3362.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 12-Apr-2016 09:04:30
Spectrum: Tune Spec :Average 245-247(4.49-4.50) Bgrd 234(4.43)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	291	70.00	434	95.00	50800	150.00	50
47.00	714	71.00	54	96.00	3888	152.00	52
48.00	490	72.00	283	97.00	41	154.00	52
49.00	2364	73.00	2276	98.00	134	155.00	107
50.00	10400	74.00	8815	103.00	194	156.00	130
51.00	3471	75.00	26664	104.00	222	157.00	145
52.00	218	76.00	2445	105.00	166	172.00	505
53.00	52	77.00	502	106.00	68	174.00	40512
54.00	50	78.00	412	116.00	109	175.00	2741
55.00	349	79.00	1004	117.00	341	176.00	40176
56.00	837	80.00	473	118.00	285	177.00	2862
57.00	1316	81.00	1216	119.00	259	191.00	239
60.00	511	82.00	323	128.00	121	193.00	73
61.00	2645	86.00	116	130.00	125	195.00	57
62.00	2330	87.00	2477	133.00	42	221.00	86
63.00	2229	88.00	2667	135.00	126	281.00	143
64.00	182	91.00	193	141.00	363	284.00	65
65.00	538	92.00	1240	143.00	496	415.00	64
68.00	5787	93.00	2191	147.00	217	418.00	53
69.00	5204	94.00	6180	148.00	100	425.00	52

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3975.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	03-May-2016 10:14:30	ALS Bottle#:	99	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	bfb				
Operator ID:	moanm	Instrument ID:	VMS_G2		
Method:	\\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	03-May-2016 16:33:54	Calib Date:	12-Apr-2016 14:49:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D				
Column 1 :	DB-624 (60.25) (0.25 mm)		Det: MS SCAN		
Process Host:	XAWRK018				
First Level Reviewer: moanm		Date:	03-May-2016 11:05:03		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 11 BFB	95	4.470	4.470	0.000	79	153110	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

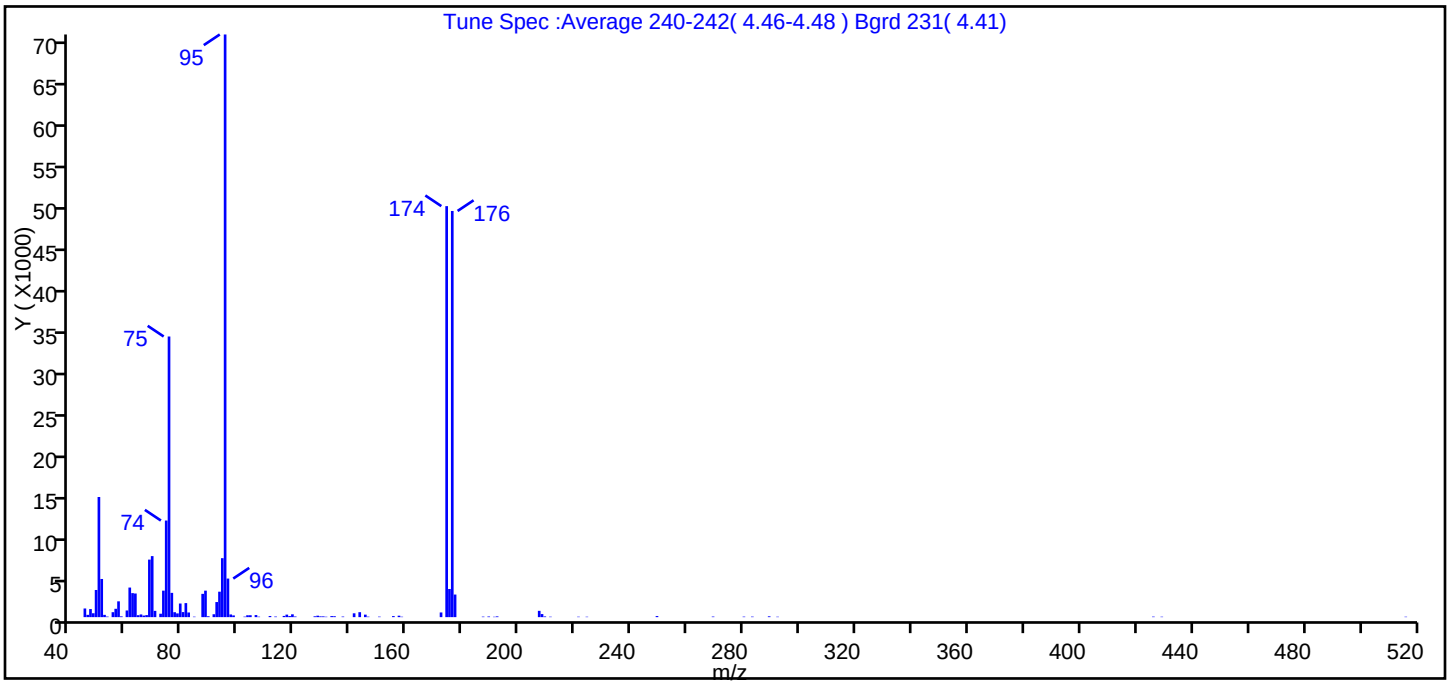
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3975.D
Injection Date: 03-May-2016 10:14:30 Instrument ID: VMS_G2
Lims ID: BFB
Client ID:
Operator ID: moanm ALS Bottle#: 99 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid
Tune Method: BFB Method 8260

$ 11 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	70.5
175	5 to 9% of m/z 174	4.8 (6.8)
176	Greater than 95% but less than 101% of m/z 174	69.7 (98.8)
177	5 to 9% of m/z 176	3.9 (5.6)

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3975.D\AQ_VMSG2_8260.rslt\spectra.d
Injection Date: 03-May-2016 10:14:30
Spectrum: Tune Spec :Average 240-242(4.46-4.48) Bgrd 231(4.41)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	1047	73.00	3204	106.00	251	172.00	566
46.00	278	74.00	11679	107.00	57	174.00	49688
47.00	977	75.00	33928	111.00	134	175.00	3402
48.00	470	76.00	2935	113.00	71	176.00	49104
49.00	3283	77.00	597	116.00	147	177.00	2732
50.00	14524	78.00	453	117.00	305	187.00	62
51.00	4614	79.00	1647	118.00	131	189.00	77
52.00	276	80.00	611	119.00	342	191.00	45
53.00	67	81.00	1697	120.00	76	192.00	92
55.00	598	82.00	562	127.00	102	207.00	762
56.00	1010	84.00	56	128.00	174	208.00	372
57.00	1911	87.00	2815	129.00	93	209.00	85
58.00	92	88.00	3202	130.00	91	211.00	53
60.00	806	89.00	106	131.00	50	221.00	52
61.00	3577	91.00	351	133.00	127	224.00	50
62.00	2904	92.00	1824	134.00	111	249.00	132
63.00	2857	93.00	3077	137.00	70	269.00	70
64.00	235	94.00	7130	141.00	464	280.00	62
65.00	326	95.00	70440	143.00	599	283.00	63
66.00	191	96.00	4664	145.00	302	289.00	99
67.00	246	97.00	324	146.00	60	292.00	51
68.00	6955	98.00	208	150.00	61	426.00	63
69.00	7379	102.00	62	155.00	126	429.00	52
70.00	758	103.00	228	157.00	174	516.00	51
72.00	414	104.00	231	158.00	51		

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3757.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	18-Apr-2016 21:34:30	ALS Bottle#:	100	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Operator ID:	bergerb	Instrument ID:	VMS_H		
Method:	\\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	19-Apr-2016 08:01:40	Calib Date:	19-Apr-2016 04:17:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK031				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.486	2.486	0.000	90	256507	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

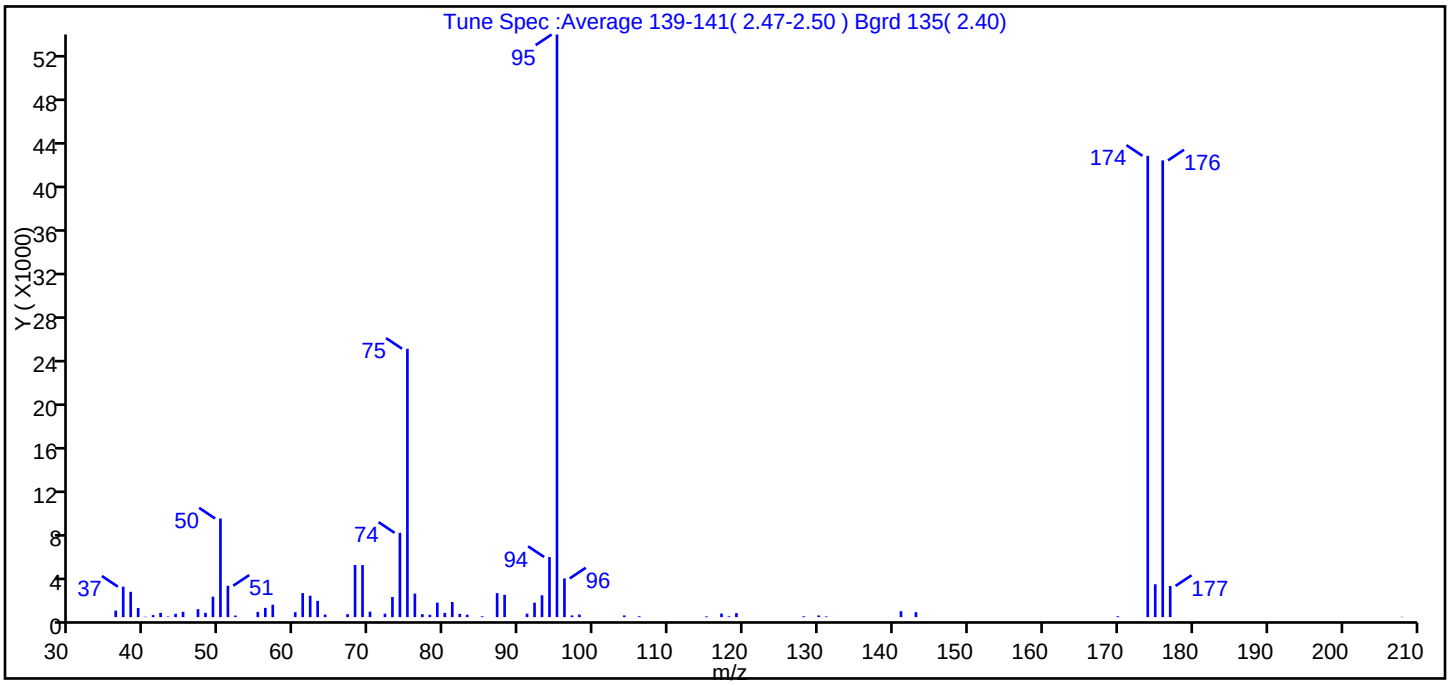
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3757.D
Injection Date: 18-Apr-2016 21:34:30 Instrument ID: VMS_H
Lims ID: BFB
Client ID:
Operator ID: bergerb 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	100.0
50	15 to 40% of m/z 95	16.9
75	30 to 60% of m/z 95	46.1
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.2
175	5 to 9% of m/z 174	5.7 (7.1)
176	Greater than 95% but less than 101% of m/z 174	78.4 (99.0)
177	5 to 9% of m/z 176	5.4 (6.8)

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3757.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 18-Apr-2016 21:34:30
Spectrum: Tune Spec :Average 139-141(2.47-2.50) Bgrd 135(2.40)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 68

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	603	56.00	858	78.00	219	104.00	160
37.00	2820	57.00	1153	79.00	1343	106.00	83
38.00	2345	60.00	457	80.00	396	115.00	73
39.00	848	61.00	2226	81.00	1402	117.00	330
40.00	38	62.00	1981	82.00	304	118.00	76
41.00	189	63.00	1509	83.00	227	119.00	374
42.00	397	64.00	240	85.00	77	128.00	81
43.00	56	67.00	276	87.00	2224	130.00	159
44.00	305	68.00	4832	88.00	2070	131.00	67
45.00	495	69.00	4824	91.00	328	141.00	548
47.00	739	70.00	510	92.00	1339	143.00	463
48.00	404	72.00	321	93.00	2027	170.00	80
49.00	1897	73.00	1865	94.00	5566	174.00	42712
50.00	9131	74.00	7807	95.00	53944	175.00	3048
51.00	2909	75.00	24848	96.00	3584	176.00	42288
52.00	147	76.00	2181	97.00	157	177.00	2888
55.00	488	77.00	274	98.00	240	208.00	32

TestAmerica Denver
Target Compound Quantitation Report

Data File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3848.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Apr-2016 09:49:30	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:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m				
Limit Group:	MSV - 8260B Water and Solid				
Last Update:	20-Apr-2016 21:55:25	Calib Date:	20-Apr-2016 14:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D				
Column 1 :	DB-624 (75.53) (0.53 mm)		Det: MS SCAN		
Process Host:	XAWRK032				
First Level Reviewer: bergerb		Date:	20-Apr-2016 21:55:25		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 7 BFB	95	2.501	2.501	0.000	87	313873	NR	NR	7

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

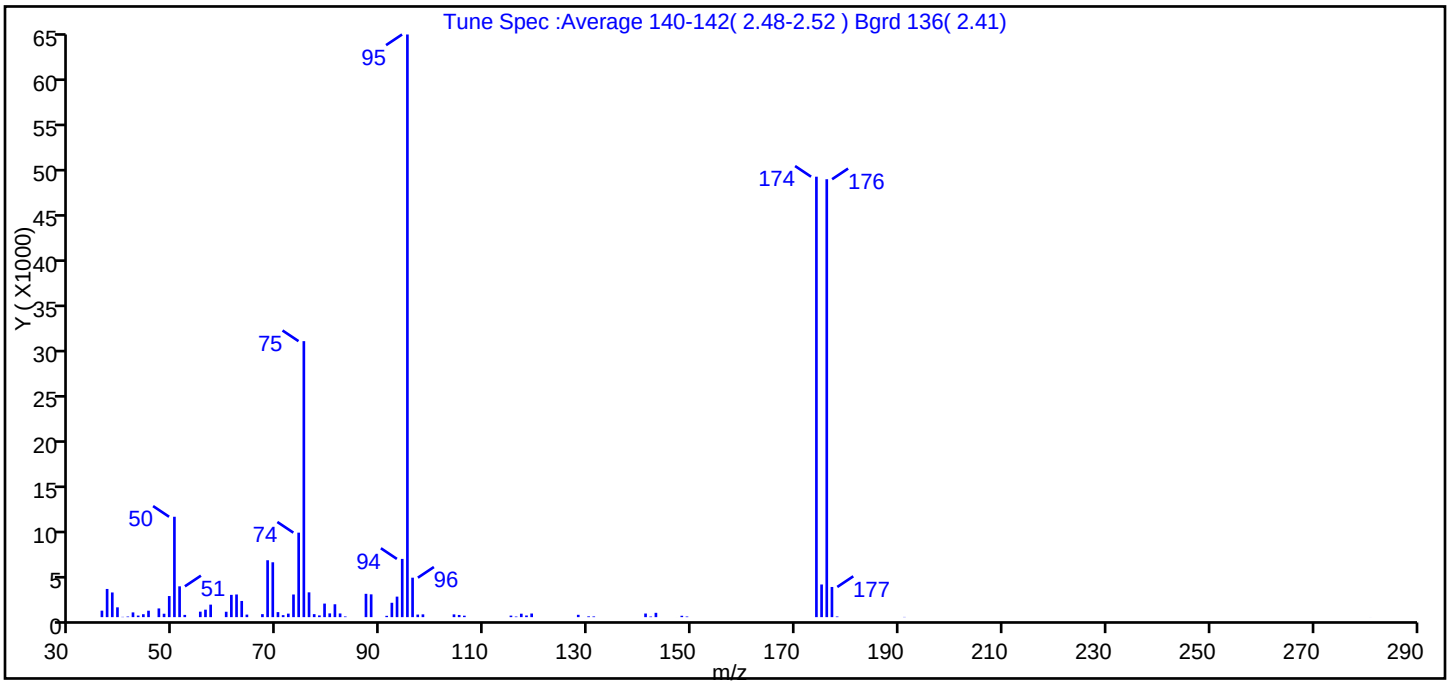
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3848.D
Injection Date: 20-Apr-2016 09:49:30 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	100.0
50	15 to 40% of m/z 95	17.2
75	30 to 60% of m/z 95	47.4
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	75.6
175	5 to 9% of m/z 174	5.6 (7.4)
176	Greater than 95% but less than 101% of m/z 174	75.2 (99.4)
177	5 to 9% of m/z 176	5.2 (6.9)

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3848.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 20-Apr-2016 09:49:30
Spectrum: Tune Spec :Average 140-142(2.48-2.52) Bgrd 136(2.41)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 75

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	719	60.00	598	81.00	1427	118.00	182
37.00	3124	61.00	2470	82.00	408	119.00	403
38.00	2735	62.00	2512	83.00	76	128.00	259
39.00	1087	63.00	1794	87.00	2585	130.00	87
40.00	31	64.00	283	88.00	2526	131.00	79
41.00	68	67.00	332	91.00	146	141.00	401
42.00	526	68.00	6306	92.00	1592	142.00	68
43.00	175	69.00	6080	93.00	2274	143.00	479
44.00	324	70.00	557	94.00	6453	147.00	1
45.00	713	71.00	223	95.00	64568	148.00	153
47.00	966	72.00	390	96.00	4372	149.00	71
48.00	378	73.00	2510	97.00	285	174.00	48808
49.00	2338	74.00	9363	98.00	310	175.00	3619
50.00	11124	75.00	30584	104.00	307	176.00	48528
51.00	3415	76.00	2748	105.00	242	177.00	3344
52.00	249	77.00	333	106.00	161	178.00	71
55.00	607	78.00	192	115.00	170	191.00	23
56.00	827	79.00	1502	116.00	68	281.00	3
57.00	1387	80.00	416	117.00	382		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4358.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 01-May-2016 06:41:30 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: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:31:03 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 07:56:39

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	90	284797	NR	NR	7

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
7 - Failed Limit of Detection

Reagents:

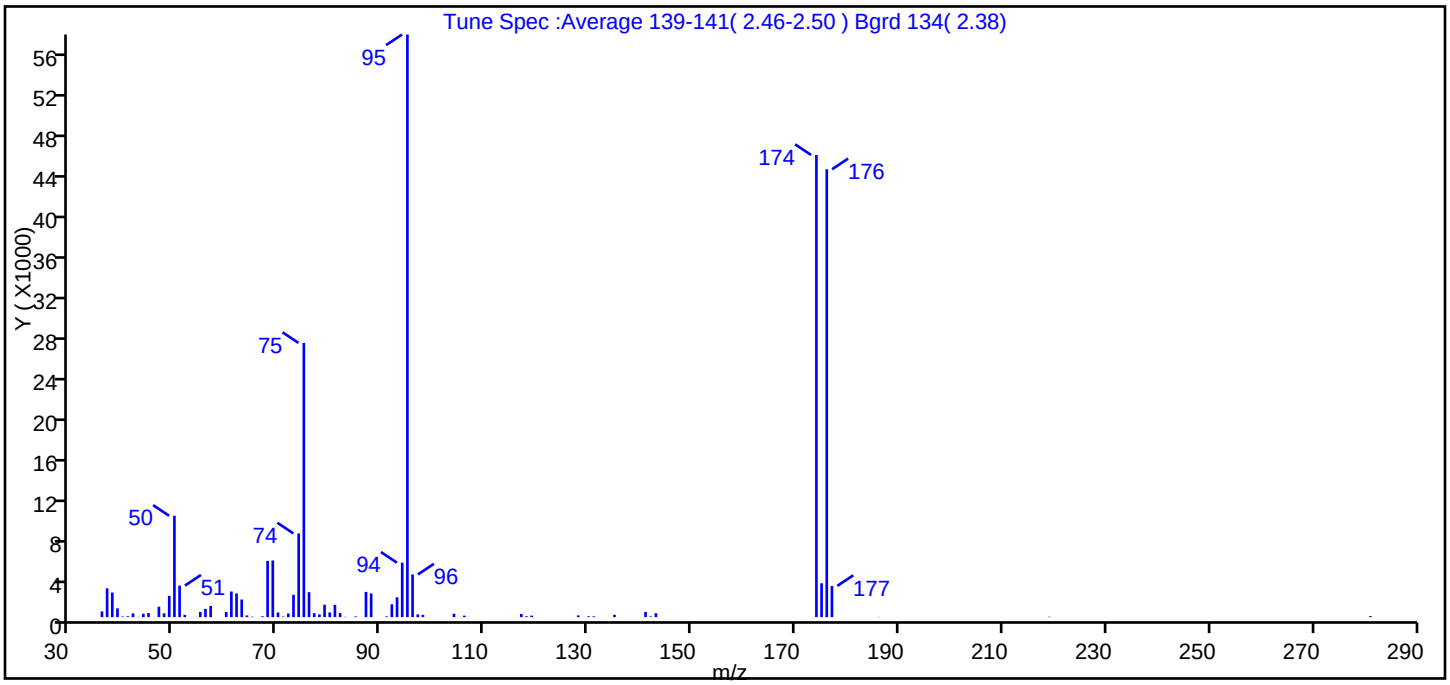
MV-BFB_00020 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4358.D
Injection Date: 01-May-2016 06:41:30 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	100.0
50	15 to 40% of m/z 95	17.4
75	30 to 60% of m/z 95	47.1
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	79.3
175	5 to 9% of m/z 174	5.8 (7.3)
176	Greater than 95% but less than 101% of m/z 174	76.9 (96.9)
177	5 to 9% of m/z 176	5.4 (7.0)

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4358.D\AQ_VMSH_8260.rslt\spectra.d
Injection Date: 01-May-2016 06:41:30
Spectrum: Tune Spec :Average 139-141(2.46-2.50) Bgrd 134(2.38)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	562	60.00	502	80.00	459	119.00	152
37.00	2838	61.00	2526	81.00	1211	128.00	172
38.00	2424	62.00	2335	82.00	397	130.00	85
39.00	866	63.00	1737	83.00	29	131.00	78
40.00	60	64.00	170	85.00	69	135.00	230
41.00	84	65.00	46	87.00	2483	141.00	516
42.00	368	67.00	82	88.00	2327	142.00	66
43.00	24	68.00	5538	91.00	76	143.00	385
44.00	335	69.00	5581	92.00	1268	147.00	1
45.00	394	70.00	459	93.00	1955	174.00	45512
47.00	1028	71.00	56	94.00	5365	175.00	3336
48.00	376	72.00	358	95.00	57376	176.00	44104
49.00	2099	73.00	2202	96.00	4202	177.00	3074
50.00	9981	74.00	8244	97.00	271	186.00	21
51.00	3104	75.00	27000	98.00	225	208.00	1
52.00	222	76.00	2460	104.00	340	219.00	40
55.00	501	77.00	395	106.00	147	281.00	100
56.00	818	78.00	264	117.00	313		
57.00	1100	79.00	1223	118.00	84		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-323599/6

Matrix: Water | Lab File ID: G2_3980.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 11:55

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.80	U	1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	0.40	U	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.6	U	3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	0.80	U	1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	0.80	U	1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	0.80	U	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	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	0.40	U	1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	0.80	U	1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
123-91-1	1,4-Dioxane	160	U	220	160	71
544-10-5	1-Chlorohexane	0.40	U	1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	4.0	U	6.0	4.0	1.8
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
591-78-6	2-Hexanone	4.0	U	5.0	4.0	1.4
106-43-4	4-Chlorotoluene	0.80	U	1.0	0.80	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	0.40	U	1.0	0.40	0.16
108-86-1	Bromobenzene	0.40	U	1.0	0.40	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.80	U	2.0	0.80	0.21
75-15-0	Carbon disulfide	1.6	U	2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-323599/6

Matrix: Water | Lab File ID: G2_3980.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 11:55

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.: 323599 | 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	0.40	U	1.0	0.40	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	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	0.40	U	1.0	0.40	0.16
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.40	U	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	0.40	U	1.0	0.40	0.16
110-82-7	Cyclohexane	0.80	U	2.0	0.80	0.28
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.40	U	1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.40	U	1.0	0.40	0.16
106-93-4	Ethylene Dibromide	0.40	U	1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	0.80	U	1.0	0.80	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
79-20-9	Methyl acetate	4.0	U	5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	0.80	U	5.0	0.80	0.25
108-87-2	Methylcyclohexane	0.80	U	2.0	0.80	0.36
75-09-2	Methylene Chloride	0.792	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	0.80	U	1.0	0.80	0.32
103-65-1	N-Propylbenzene	0.40	U	1.0	0.40	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	0.175	J	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	0.40	U	1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
79-01-6	Trichloroethene	0.40	U	1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.20	U	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-323599/6

Matrix: Water Lab File ID: G2_3980.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 11:55

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.: 323599 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-120
460-00-4	4-Bromofluorobenzene (Surr)	110		75-120
1868-53-7	Dibromofluoromethane (Surr)	106		85-115
2037-26-5	Toluene-d8 (Surr)	108		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3980.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 03-May-2016 11:55:30 ALS Bottle#: 14 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: pr
Operator ID: moanm Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:58 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 12:14:07

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	5.473	5.473	0.000	0	183250	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1722314	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	351438	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	477283	12.5	12.5	
* 5 1,4-Dioxane-d8	96		0.000					ND	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	378295	10.0	10.6	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	335654	10.0	11.0	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1726590	10.0	10.8	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	533991	10.0	11.0	
$ 10 Trifluorotoluene (Surr)	1		0.000					ND	
$ 11 BFB	95		4.470					ND	
13 Dichlorodifluoromethane	85		3.825					ND	
12 Chlorotrifluoroethene	116		3.867					ND	
14 Chloromethane	50		4.021					ND	
15 1,2-Dichloro-1,1,2,2-tetra	85		4.077					ND	
16 Vinyl chloride	62		4.174					ND	
17 2-Chloro-1,1,1-Trifluoroet	118		4.314					ND	
18 Ethylene oxide	43		4.454					ND	
19 Bromomethane	94		4.510					ND	
20 Chloroethane	64		4.579					ND	
21 Dichlorofluoromethane	67		4.719					ND	
23 Ethanol	45		4.803					ND	
22 Trichlorofluoromethane	101		4.803					ND	
25 Ethyl ether	59		4.970					ND	
27 Propene oxide	58		5.054					ND	
24 1,2-Dichloro-1,1,2-trifluo	117		5.082					ND	
28 Acrolein	56		5.096					ND	
26 1,1,1-Trifluoro-2,2-dichlo	83		5.110					ND	
29 Acetone	43		5.194					ND	
30 Isopropyl alcohol	45	5.222	5.208	0.014	63	2564		3.07	
31 1,1,2-Trichloro-1,2,2-trif	151		5.222					ND	
32 1,1-Dichloroethene	96		5.236					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Acetonitrile	41		5.403					ND	
34 Iodomethane	142		5.417					ND	
35 Methyl acetate	43		5.431					ND	
36 3-Chloro-1-propene	41		5.487					ND	
37 Carbon disulfide	76	5.515	5.515	0.000	98	42384		0.1858	
38 2-Methyl-2-propanol	59		5.529					ND	
39 Methylene Chloride	84	5.571	5.571	0.000	96	66856		0.7923	
40 Acrylonitrile	53		5.711					ND	
41 Methyl tert-butyl ether	73		5.767					ND	
42 trans-1,2-Dichloroethene	96		5.795					ND	
43 Hexane	57		5.976					ND	
44 Vinyl acetate	43		6.054					ND	
45 Isopropyl ether	87		6.082					ND	
46 1,1-Dichloroethane	63		6.118					ND	
47 2-Chloro-1,3-butadiene	53		6.182					ND	
48 Tert-butyl ethyl ether	59		6.354					ND	
49 Ethyl acetate	43		6.475					ND	
50 2-Butanone (MEK)	43		6.483					ND	
51 Propionitrile	54		6.526					ND	
52 sec-Butyl Alcohol	45		6.526					ND	
53 cis-1,2-Dichloroethene	96		6.540					ND	
54 2,2-Dichloropropane	77		6.576					ND	
55 Methacrylonitrile	41		6.654					ND	
56 Chlorobromomethane	128		6.733					ND	
57 Chloroform	83		6.747					ND	
58 Tetrahydrofuran	42		6.769					ND	
59 Isobutyl alcohol	41		6.940					ND	
60 1,1,1-Trichloroethane	97		6.969					ND	
61 Cyclohexane	56		7.055					ND	
62 1,1-Dichloropropene	75		7.069					ND	
63 Carbon tetrachloride	117		7.112					ND	
64 1,2-Dichloroethane	62		7.219					ND	
65 Tert-amyl methyl ether	73		7.241					ND	
66 Benzene	78		7.248					ND	
67 n-Heptane	43		7.341					ND	
68 n-Butanol	56		7.434					ND	
69 Trichloroethene	95		7.713					ND	
70 2-Pentanone	43		7.741					ND	
71 Methyl methacrylate	100		7.841					ND	
72 1,2-Dichloropropane	63		7.891					ND	
73 Methylcyclohexane	55		7.913					ND	
74 1,4-Dioxane	88		7.941					ND	
75 Dibromomethane	93		7.991					ND	
76 Dichlorobromomethane	83		8.063					ND	
77 2-Nitropropane	41		8.192					ND	
78 2-Chloroethyl vinyl ether	63		8.213					ND	
79 cis-1,3-Dichloropropene	75		8.392					ND	
80 4-Methyl-2-pentanone (MIBK	43		8.449					ND	
81 Toluene	91		8.678					ND	
83 trans-1,3-Dichloropropene	75		8.764					ND	
82 Ethyl methacrylate	69		8.764					ND	
84 1,1,2-Trichloroethane	97		8.921					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 2-Hexanone	43		9.043					ND	
86 1,3-Dichloropropane	76		9.057					ND	
87 Tetrachloroethene	164		9.100					ND	
88 Chlorodibromomethane	129		9.250					ND	
89 Tetrahydrothiophene	60		9.293					ND	
90 Ethylene Dibromide	107		9.371					ND	
91 1-Chlorohexane	91		9.607					ND	
92 Chlorobenzene	112		9.715					ND	
93 1,1,1,2-Tetrachloroethane	131		9.750					ND	
94 Ethylbenzene	106		9.758					ND	
95 m-Xylene & p-Xylene	106		9.829					ND	
96 Styrene	104	10.144	10.144	0.000	96	19588		0.1751	
97 o-Xylene	106		10.144					ND	
98 Bromoform	173		10.330					ND	
99 Isopropylbenzene	105		10.401					ND	
100 cis-1,4-Dichloro-2-butene	53		10.415					ND	
101 Cyclohexanone	55		10.515					ND	
102 1,1,2,2-Tetrachloroethane	83		10.594					ND	
103 trans-1,4-Dichloro-2-buten	53		10.623					ND	
104 1,2,3-Trichloropropane	110		10.658					ND	
105 Bromobenzene	156		10.709					ND	
106 N-Propylbenzene	120		10.716					ND	
107 1,3,5-Trimethylbenzene	105		10.823					ND	
108 2-Chlorotoluene	126		10.830					ND	
109 4-Chlorotoluene	126		10.909					ND	
110 tert-Butylbenzene	119		11.116					ND	
111 1,2,4-Trimethylbenzene	105		11.145					ND	
112 sec-Butylbenzene	134		11.295					ND	
113 4-Isopropyltoluene	119		11.381					ND	
114 1,3-Dichlorobenzene	146		11.445					ND	
116 1,4-Dichlorobenzene	146		11.509					ND	
115 1,2,3-Trimethylbenzene	105		11.516					ND	
117 n-Butylbenzene	91		11.738					ND	
118 1,2-Dichlorobenzene	146		11.860					ND	
119 1,2-Dibromo-3-Chloropropan	157		12.568					ND	
120 1,3,5-Trichlorobenzene	180		12.789					ND	
121 1,2,4-Trichlorobenzene	180		13.497					ND	
122 Hexachlorobutadiene	225		13.647					ND	
123 Naphthalene	128		13.840					ND	
124 1,2,3-Trichlorobenzene	180		14.148					ND	
142 2,4-Dimethylpentane	1		0.000					ND	
143 n-Nonyl Aldehyde	1		0.000					ND	
128 2,2-Dimethylpentane	1		0.000					ND	
145 Pentachloroethane	167		0.000					ND	
136 3-Ethylpentane	1		0.000					ND	
137 2,2,3-Trimethylbutane	1		0.000					ND	
141 3,3-Dimethylpentane	1		0.000					ND	
126 Dimethyl disulfide	1		0.000					ND	
125 2,3-Dimethylpentane	1		0.000					ND	
139 3-Methylhexane	1		0.000					ND	
129 2-Methylhexane	1		0.000					ND	
S 149 1,2-Dichloroethene, Total	96		2.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 150 Trihalomethanes, Total	1		0.000				ND		
S 151 Xylenes, Total (URS)	1		0.000				ND		
S 152 Total BTEX	1		0.000				ND		
S 153 1,3-Dichloropropene, Total	1		0.000				ND		
S 154 1,2-Dichloroethene, Total	1		0.000				ND		
S 155 Xylenes, Total	106		0.000				ND		
S 156 TAH	1				0			0	
T 133 Propene TIC	41		0.000				ND		
T 132 1,3-Butadiene TIC	39		0.000				ND		
T 130 Dicyclopentadiene TIC	66		0.000				ND		
T 131 4-Ethyltoluene TIC	105		0.000				ND		
T 127 2-Butoxyethanol TIC	1		0.000				ND		
T 146 2,3-dichloro-1-propene TIC	75		0.000				ND		
T 147 Dichloroacetonitrile TIC	74		0.000				ND		
T 148 Propene oxide TIC	58		0.000				ND		
T 157 n-Nonane TIC	1		0.000				ND		

Reagents:

MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent

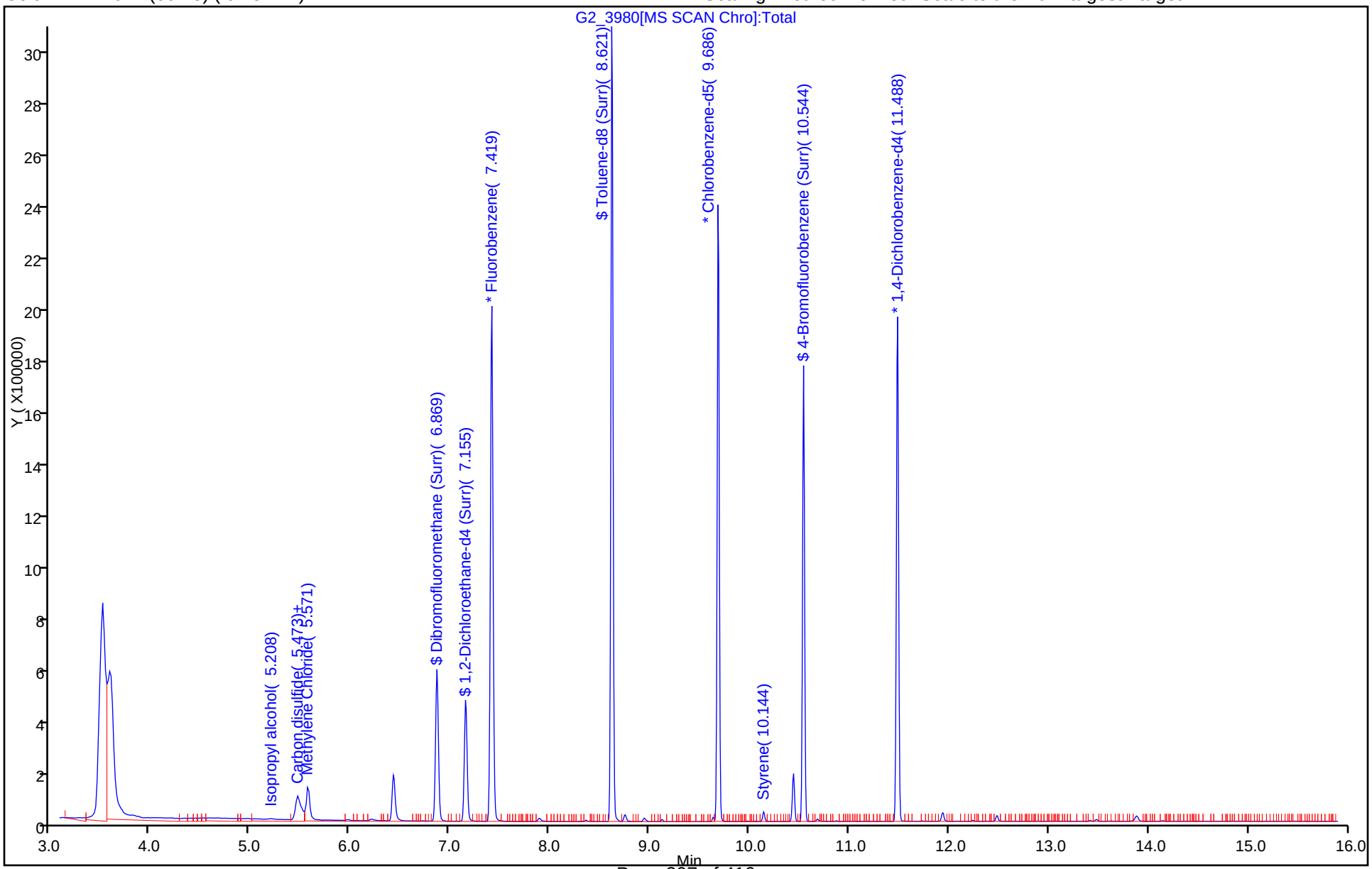
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3980.D

Injection Date:	03-May-2016 11:55:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Report Date: 03-May-2016 16:34:06 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3980.D

Injection Date: 03-May-2016 11:55:30 Instrument ID: VMS_G2

Lims ID: MB

Client ID:

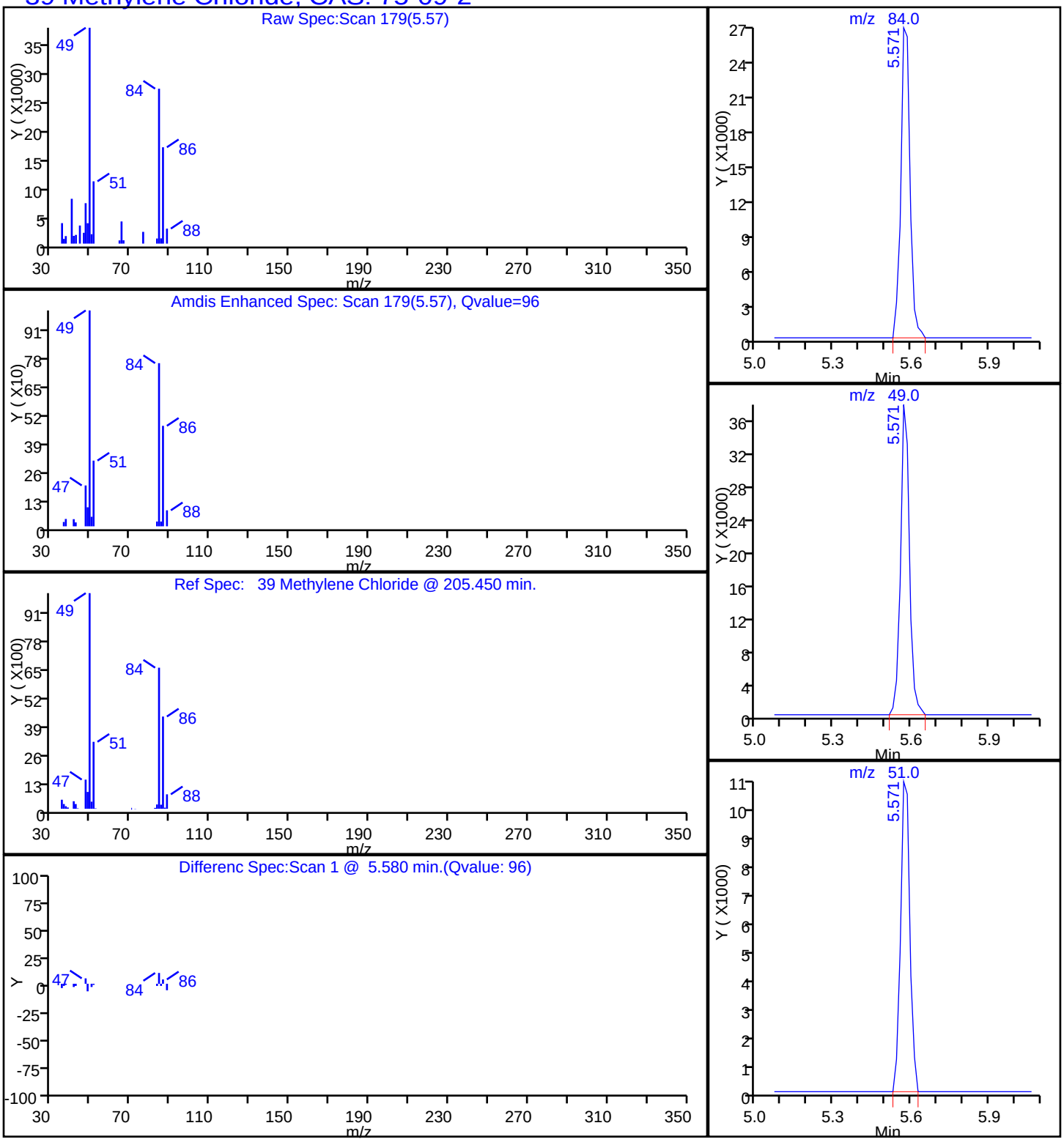
Operator ID: moanm ALS Bottle#: 14 Worklist Smp#: 6

Purge Vol: 20.000 mL Dil. Factor: 1.0000

Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid

Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

39 Methylene Chloride, CAS: 75-09-2



Report Date: 03-May-2016 16:34:07 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3980.D

Injection Date: 03-May-2016 11:55:30 Instrument ID: VMS_G2

Lims ID: MB

Client ID:

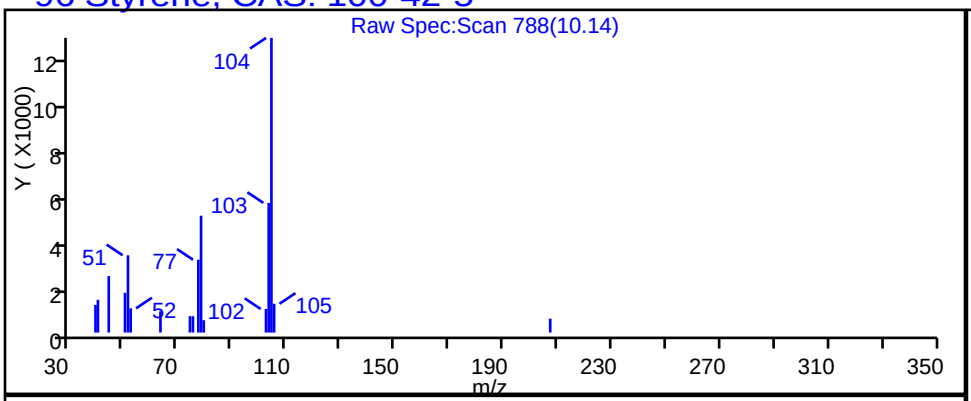
Operator ID: moanm ALS Bottle#: 14 Worklist Smp#: 6

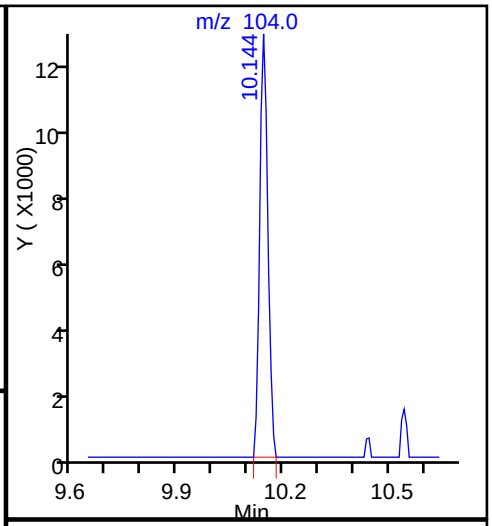
Purge Vol: 20.000 mL Dil. Factor: 1.0000

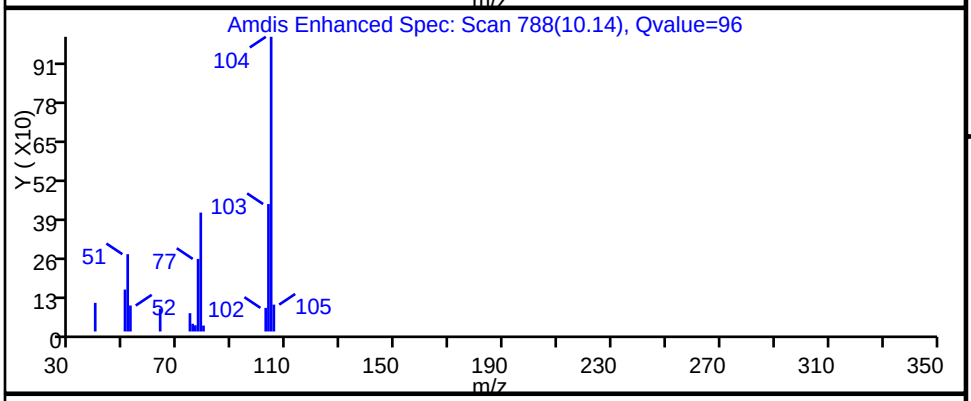
Method: AQ_VMSG2_8260 Limit Group: MSV - 8260B Water and Solid

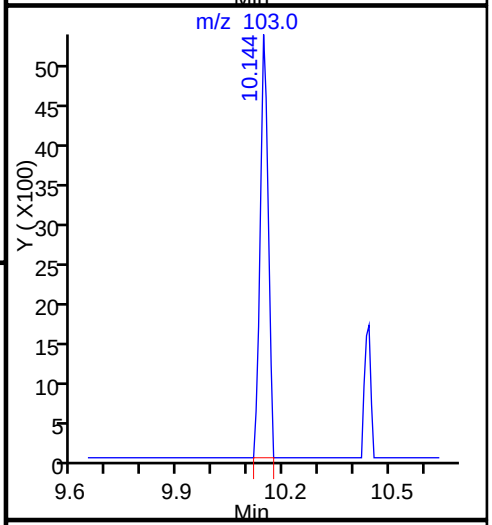
Column: DB-624 (60.25) (0.25 mm) Detector MS SCAN

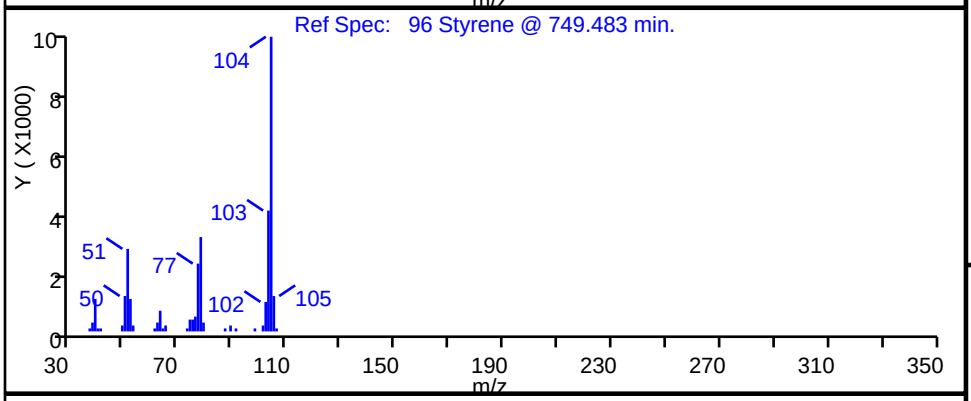
96 Styrene, CAS: 100-42-5

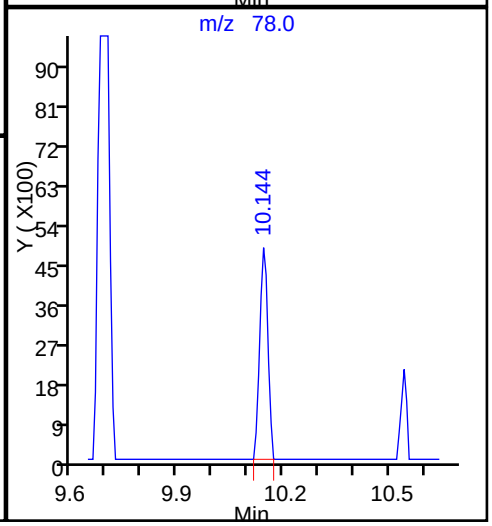


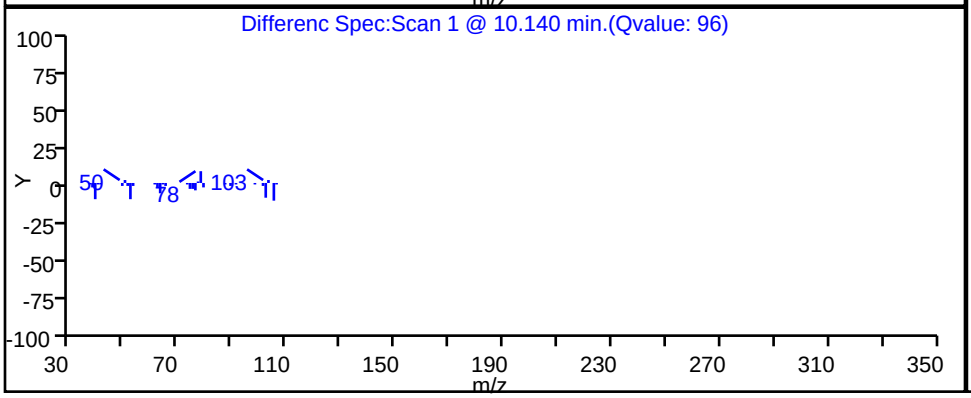












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 280-322152/1-A

Matrix: Solid (TCLP) | Lab File ID: H4375.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 13:36

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-35-4	1,1-Dichloroethene	8.0	U	10	8.0	2.3
107-06-2	1,2-Dichloroethane	4.0	U	10	4.0	1.3
78-93-3	2-Butanone (MEK)	64	U	100	64	18
71-43-2	Benzene	4.0	U	10	4.0	1.6
56-23-5	Carbon tetrachloride	4.0	U	10	4.0	1.9
108-90-7	Chlorobenzene	4.0	U	10	4.0	1.7
67-66-3	Chloroform	4.0	U	10	4.0	1.6
127-18-4	Tetrachloroethene	4.0	U	10	4.0	2.0
79-01-6	Trichloroethene	4.0	U	10	4.0	1.6
75-01-4	Vinyl chloride	2.0	U	10	2.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		64-129
460-00-4	4-Bromofluorobenzene (Surr)	102		78-121
1868-53-7	Dibromofluoromethane (Surr)	99		79-119
2037-26-5	Toluene-d8 (Surr)	100		78-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4375.D
Lims ID: LB 280-322152/1-A
Client ID:
Sample Type: LB
Inject. Date: 01-May-2016 13:36:30 ALS Bottle#: 17 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LB 280-322152/1-A 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 14:01:55

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	3.967	3.980	-0.014	96	120167	250.0	250.0	
* 2 Fluorobenzene	96	6.752	6.766	-0.014	98	864500	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					ND	
* 4 Chlorobenzene-d5	119	11.087	11.101	-0.014	86	219957	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.081	14.095	-0.014	96	305038	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.916	5.930	-0.014	94	378040	9.00	8.90	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.334	6.348	-0.014	100	137319	9.00	8.25	
$ 10 Toluene-d8 (Surr)	98	8.859	8.872	-0.013	93	891228	9.00	9.02	
$ 11 4-Bromofluorobenzene (Surr	95	12.741	12.755	-0.013	88	406129	9.00	9.16	
$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95		2.482					ND	
28 Dichlorodifluoromethane	85		2.135					ND	
27 Chlorotrifluoroethene	116		2.173					ND	
30 Chloromethane	50		2.257					ND	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329					ND	
32 Vinyl chloride	62		2.361					ND	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521					ND	
34 Ethylene oxide	43		2.638					ND	
35 Bromomethane	94		2.674					ND	
36 Chloroethane	64		2.744					ND	
37 Dichlorofluoromethane	67		2.918					ND	
38 Trichlorofluoromethane	101		2.988					ND	
39 Ethanol	45		3.143					ND	
40 Ethyl ether	59		3.214					ND	
43 Propene oxide	58		3.299					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374					ND	
44 Acrolein	56		3.375					ND	
45 1,1-Dichloroethene	96		3.475					ND	
46 1,1,2-Trichloro-1,2,2-trif	151		3.493					ND	
47 Acetone	43		3.510					ND	
49 Isopropyl alcohol	45		3.630					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	3.653	3.649	0.004	97	14926		0.1855	
50 Carbon disulfide	76		3.719					ND	
51 Acetonitrile	41		3.804					ND	
52 3-Chloro-1-propene	41		3.823					ND	
53 Methyl acetate	43	3.827	3.823	0.004	95	14318		3.30	
54 Methylene Chloride	84	3.949	3.945	0.004	99	42154		1.51	
55 2-Methyl-2-propanol	59		4.067					ND	
57 Acrylonitrile	53		4.206					ND	
56 Methyl tert-butyl ether	73		4.241					ND	
58 trans-1,2-Dichloroethene	96		4.241					ND	
59 Hexane	57		4.502					ND	
60 1,1-Dichloroethane	63		4.694					ND	
61 Vinyl acetate	43		4.715					ND	
62 Isopropyl ether	87		4.744					ND	
63 2-Chloro-1,3-butadiene	53		4.797					ND	
64 Tert-butyl ethyl ether	59		5.162					ND	
65 cis-1,2-Dichloroethene	96		5.355					ND	
66 2,2-Dichloropropane	77		5.373					ND	
67 2-Butanone (MEK)	43		5.373					ND	
69 Ethyl acetate	43		5.423					ND	
70 Propionitrile	54		5.458					ND	
71 sec-Butyl Alcohol	45		5.582					ND	
72 Methacrylonitrile	41		5.615					ND	
73 Chlorobromomethane	128		5.651					ND	
74 Tetrahydrofuran	42		5.704					ND	
75 Chloroform	83		5.721					ND	
76 1,1,1-Trichloroethane	97		5.965					ND	
77 Cyclohexane	56		6.034					ND	
78 1,1-Dichloropropene	75		6.156					ND	
79 Carbon tetrachloride	117		6.174					ND	
80 Isobutyl alcohol	41		6.296					ND	
81 Benzene	78		6.417					ND	
82 1,2-Dichloroethane	62		6.435					ND	
83 Tert-amyl methyl ether	73		6.537					ND	
84 n-Heptane	43		6.713					ND	
85 n-Butanol	56		7.147					ND	
86 Trichloroethene	95		7.236					ND	
88 2-Pentanone	43		7.462					ND	
89 Methylcyclohexane	55		7.479					ND	
90 1,2-Dichloropropane	63		7.532					ND	
91 Methyl methacrylate	100		7.669					ND	
92 Dibromomethane	93		7.688					ND	
93 1,4-Dioxane	88		7.741					ND	
94 Dichlorobromomethane	83		7.897					ND	
95 2-Nitropropane	41		8.191					ND	
96 2-Chloroethyl vinyl ether	63		8.284					ND	
97 cis-1,3-Dichloropropene	75		8.489					ND	
98 4-Methyl-2-pentanone (MIBK	43		8.715					ND	
99 Toluene	91		8.959					ND	
100 trans-1,3-Dichloropropene	75		9.273					ND	
101 Ethyl methacrylate	69		9.412					ND	
102 1,1,2-Trichloroethane	97		9.534					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Tetrachloroethene	164		9.743					ND	
104 1,3-Dichloropropane	76		9.777					ND	
105 2-Hexanone	43		9.917					ND	
107 Tetrahydrothiophene	60		10.124					ND	
108 Chlorodibromomethane	129		10.143					ND	
109 Ethylene Dibromide	107		10.317					ND	
110 1-Chlorohexane	91		11.101					ND	
111 Chlorobenzene	112		11.135					ND	
112 1,1,1,2-Tetrachloroethane	131		11.275					ND	
113 Ethylbenzene	106		11.310					ND	
114 m-Xylene & p-Xylene	106		11.501					ND	
115 o-Xylene	106		12.076					ND	
116 Styrene	104		12.093					ND	
117 Bromoform	173		12.337					ND	
118 Isopropylbenzene	105		12.563					ND	
119 cis-1,4-Dichloro-2-butene	53		12.648					ND	
120 Cyclohexanone	55		12.685					ND	
121 1,1,2,2-Tetrachloroethane	83		12.946					ND	
122 Bromobenzene	156		12.946					ND	
123 1,2,3-Trichloropropane	110		12.998					ND	
124 trans-1,4-Dichloro-2-buten	53		13.016					ND	
125 N-Propylbenzene	120		13.068					ND	
126 2-Chlorotoluene	126		13.172					ND	
127 1,3,5-Trimethylbenzene	105		13.277					ND	
128 4-Chlorotoluene	126		13.294					ND	
129 tert-Butylbenzene	119		13.660					ND	
130 1,2,4-Trimethylbenzene	105		13.712					ND	
22 Pentachloroethane	167		13.716					ND	
131 sec-Butylbenzene	134		13.904					ND	
132 1,3-Dichlorobenzene	146		14.025					ND	
133 4-Isopropyltoluene	119		14.060					ND	
134 1,4-Dichlorobenzene	146		14.130					ND	
135 1,2,3-Trimethylbenzene	105		14.163					ND	
137 n-Butylbenzene	91		14.495					ND	
138 1,2-Dichlorobenzene	146		14.513					ND	
139 1,2-Dibromo-3-Chloropropan	157		15.296					ND	
140 1,3,5-Trichlorobenzene	180		15.486					ND	
141 1,2,4-Trichlorobenzene	180	16.066	16.062	0.004	92	10544		0.3336	
142 Hexachlorobutadiene	225	16.205	16.219	-0.014	95	10760		0.2337	
143 Naphthalene	128	16.292	16.289	0.003	94	14262		0.5683	
144 1,2,3-Trichlorobenzene	180	16.501	16.515	-0.014	91	9848		0.4536	
21 2,4-Dimethylpentane	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	
19 2,3-Dimethylpentane	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	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
S 151 1,2-Dichloroethene, Total	96		2.000					ND	
S 145 Trihalomethanes, Total	1		0.000					ND	
S 146 Xylenes, Total (URS)	1		0.000					ND	
S 147 Total BTEX	1		0.000					ND	
S 148 1,3-Dichloropropene, Total	1		0.000					ND	
S 149 1,2-Dichloroethene, Total	1		0.000					ND	
S 150 Xylenes, Total	106		0.000					ND	
S 160 TAH	1				0				0
T 25 Dichloroacetonitrile TIC	74		0.000					ND	
T 26 2,3-dichloro-1-propene TIC	75		0.000					ND	
T 68 Propene oxide TIC	58		0.000					ND	
T 153 Propene TIC	1		0.000					ND	
T 155 4-Ethyltoluene TIC	1		0.000					ND	
T 154 Dicyclopentadiene TIC	1		0.000					ND	
T 156 1,3-Butadiene TIC	1		0.000					ND	
T 161 n-Nonane TIC	1		0.000					ND	

Reagents:

MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

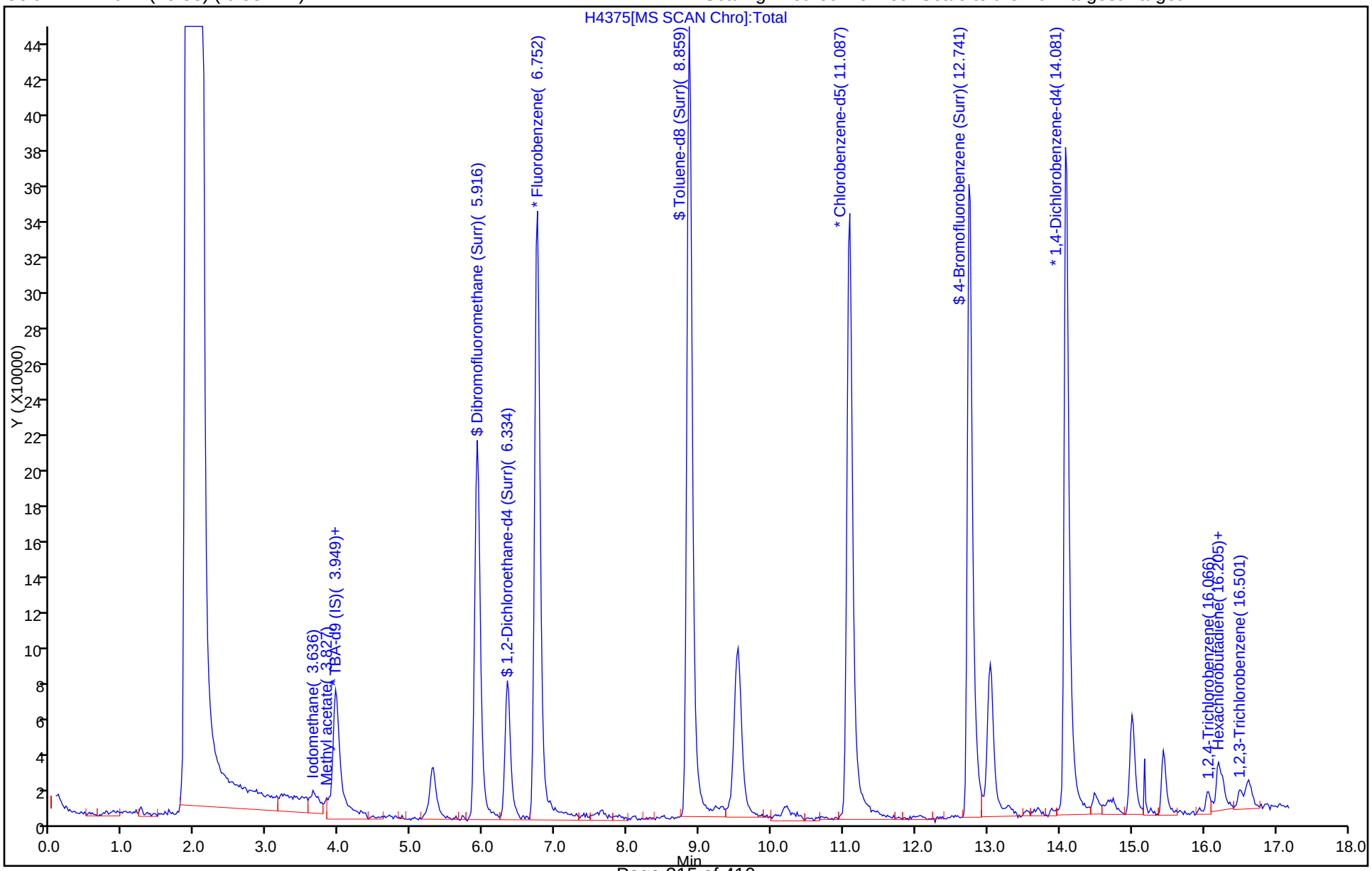
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TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4375.D

Injection Date:	01-May-2016 13:36:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	LB 280-322152/1-A			Worklist Smp#:	21
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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-322152/2-A

Matrix: Solid (TCLP) | Lab File ID: H4374.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 13:12

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-35-4	1,1-Dichloroethene	37.4		10	8.0	2.3
107-06-2	1,2-Dichloroethane	62.4		10	4.0	1.3
78-93-3	2-Butanone (MEK)	293		100	64	18
71-43-2	Benzene	49.3		10	4.0	1.6
56-23-5	Carbon tetrachloride	48.9		10	4.0	1.9
108-90-7	Chlorobenzene	47.9		10	4.0	1.7
67-66-3	Chloroform	51.4		10	4.0	1.6
127-18-4	Tetrachloroethene	39.5		10	4.0	2.0
79-01-6	Trichloroethene	46.5		10	4.0	1.6
75-01-4	Vinyl chloride	45.6		10	2.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-129
460-00-4	4-Bromofluorobenzene (Surr)	105		78-121
1868-53-7	Dibromofluoromethane (Surr)	100		79-119
2037-26-5	Toluene-d8 (Surr)	108		78-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4374.D
Lims ID: LCS 280-322152/2-A
Client ID:
Sample Type: LCS
Inject. Date: 01-May-2016 13:12:30 ALS Bottle#: 16 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS 280-321959/2-A 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 01-May-2016 13:59:32

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	3.978	3.980	-0.002	89	154168	250.0	250.0	
* 2 Fluorobenzene	96	6.747	6.766	-0.020	96	1078347	12.5	12.5	
* 4 Chlorobenzene-d5	119	11.081	11.101	-0.020	93	256376	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.093	14.095	-0.002	99	386405	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.911	5.930	-0.019	93	478981	9.00	9.04	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.346	6.348	-0.002	98	216736	9.00	10.4	
$ 10 Toluene-d8 (Surr)	98	8.870	8.872	-0.002	94	1122571	9.00	9.74	
$ 11 4-Bromofluorobenzene (Surr	95	12.753	12.755	-0.001	83	530404	9.00	9.44	
28 Dichlorodifluoromethane	85	2.133	2.135	-0.002	97	218624	5.00	4.36	
30 Chloromethane	50	2.255	2.257	-0.002	98	109641	5.00	4.70	
32 Vinyl chloride	62	2.359	2.361	-0.002	98	128996	5.00	4.56	
35 Bromomethane	94	2.673	2.674	-0.001	89	103747	5.00	3.68	
36 Chloroethane	64	2.742	2.744	-0.002	99	79269	5.00	4.37	
37 Dichlorofluoromethane	67	2.916	2.918	-0.002	97	308309	5.00	4.02	
38 Trichlorofluoromethane	101	2.986	2.988	-0.002	98	303109	5.00	3.79	
40 Ethyl ether	59	3.212	3.214	-0.002	95	55789	5.00	4.92	
45 1,1-Dichloroethene	96	3.474	3.475	-0.001	93	147925	5.00	3.74	
46 1,1,2-Trichloro-1,2,2-trif	151	3.491	3.493	-0.002	96	202770	5.00	3.16	
47 Acetone	43	3.526	3.510	0.016	33	37063	20.0	24.9	
48 Iodomethane	142	3.648	3.649	-0.001	98	326757	5.00	3.26	
50 Carbon disulfide	76	3.717	3.719	-0.002	99	500944	5.00	3.72	
52 3-Chloro-1-propene	41	3.822	3.823	-0.001	88	293995	5.00	5.40	
53 Methyl acetate	43	3.822	3.823	-0.001	97	167091	25.0	30.9	
54 Methylene Chloride	84	3.944	3.945	-0.001	99	151918	5.00	5.43	
55 2-Methyl-2-propanol	59	4.065	4.067	-0.002	94	47625	50.0	54.3	
57 Acrylonitrile	53	4.205	4.206	-0.001	99	86012	50.0	60.3	
56 Methyl tert-butyl ether	73	4.240	4.241	-0.001	75	238842	5.00	5.35	
58 trans-1,2-Dichloroethene	96	4.240	4.241	-0.001	94	185413	5.00	4.63	
59 Hexane	57	4.501	4.502	-0.001	96	299847	5.00	4.56	
60 1,1-Dichloroethane	63	4.692	4.694	-0.002	95	364935	5.00	5.39	
65 cis-1,2-Dichloroethene	96	5.354	5.355	-0.001	87	174269	5.00	4.65	
66 2,2-Dichloropropane	77	5.371	5.373	-0.002	88	390776	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
67 2-Butanone (MEK)	43	5.371	5.373	-0.002	38	75995	20.0	29.3	
71 sec-Butyl Alcohol	45	5.580	5.582	-0.002	98	127420	150.0	155.0	
73 Chlorobromomethane	128	5.650	5.651	-0.001	94	71865	5.00	4.80	
74 Tetrahydrofuran	42	5.719	5.704	0.015	37	26140	10.0	12.6	
75 Chloroform	83	5.719	5.721	-0.002	94	368202	5.00	5.14	
76 1,1,1-Trichloroethane	97	5.963	5.965	-0.002	97	402893	5.00	4.91	
77 Cyclohexane	56	6.033	6.034	-0.001	93	363843	5.00	5.15	
78 1,1-Dichloropropene	75	6.155	6.156	-0.001	94	349574	5.00	4.95	
79 Carbon tetrachloride	117	6.172	6.174	-0.002	97	413737	5.00	4.89	
80 Isobutyl alcohol	41	6.294	6.296	-0.002	91	39268	125.0	130.5	
81 Benzene	78	6.416	6.417	-0.001	97	555186	5.00	4.93	
82 1,2-Dichloroethane	62	6.433	6.435	-0.002	97	141569	5.00	6.24	
84 n-Heptane	43	6.712	6.713	-0.001	96	480366	5.00	5.72	
86 Trichloroethene	95	7.217	7.236	-0.019	97	258624	5.00	4.65	
88 2-Pentanone	43	7.460	7.462	-0.002	96	203311	20.0	13.9	
89 Methylcyclohexane	55	7.478	7.479	-0.001	92	370050	5.00	5.75	
90 1,2-Dichloropropane	63	7.513	7.532	-0.019	95	200074	5.00	5.72	
92 Dibromomethane	93	7.687	7.688	-0.001	97	85845	5.00	5.08	
93 1,4-Dioxane	88	7.721	7.741	-0.020	30	8677	100.0	107.3	
94 Dichlorobromomethane	83	7.878	7.897	-0.019	99	300857	5.00	5.21	
97 cis-1,3-Dichloropropene	75	8.487	8.489	-0.002	93	264220	5.00	5.39	
98 4-Methyl-2-pentanone (MIBK	43	8.714	8.715	-0.001	97	289946	20.0	30.0	
99 Toluene	91	8.958	8.959	-0.001	97	681476	5.00	4.88	
100 trans-1,3-Dichloropropene	75	9.271	9.273	-0.002	97	174530	5.00	5.48	
101 Ethyl methacrylate	69	9.393	9.412	-0.019	93	130321	5.00	5.81	
102 1,1,2-Trichloroethane	97	9.532	9.534	-0.002	58	96673	5.00	5.02	
103 Tetrachloroethene	164	9.741	9.743	-0.002	94	240511	5.00	3.95	
104 1,3-Dichloropropane	76	9.776	9.777	-0.001	92	164972	5.00	4.91	
105 2-Hexanone	43	9.915	9.917	-0.002	99	189805	20.0	28.8	
108 Chlorodibromomethane	129	10.124	10.143	-0.019	91	201296	5.00	4.69	
109 Ethylene Dibromide	107	10.315	10.317	-0.002	99	127121	5.00	5.53	
110 1-Chlorohexane	91	11.099	11.101	-0.002	93	373368	5.00	4.46	
111 Chlorobenzene	112	11.134	11.135	-0.001	93	460907	5.00	4.79	
112 1,1,1,2-Tetrachloroethane	131	11.256	11.275	-0.019	93	217598	5.00	4.08	
113 Ethylbenzene	106	11.308	11.310	-0.002	99	247846	5.00	4.63	
114 m-Xylene & p-Xylene	106	11.482	11.501	-0.019	98	323705	5.00	4.59	
115 o-Xylene	106	12.056	12.076	-0.020	98	276802	5.00	4.55	
116 Styrene	104	12.074	12.093	-0.019	93	407988	5.00	4.56	
117 Bromoform	173	12.335	12.337	-0.002	95	103104	5.00	4.88	
118 Isopropylbenzene	105	12.544	12.563	-0.019	97	996936	5.00	5.41	
120 Cyclohexanone	55	12.683	12.685	-0.002	93	76703	200.0	276.5	
121 1,1,2,2-Tetrachloroethane	83	12.927	12.946	-0.019	95	124874	5.00	5.46	
122 Bromobenzene	156	12.927	12.946	-0.019	94	183839	5.00	4.49	
123 1,2,3-Trichloropropane	110	12.979	12.998	-0.019	80	31910	5.00	5.83	
124 trans-1,4-Dichloro-2-buten	53	13.014	13.016	-0.002	66	36035	5.00	7.98	
125 N-Propylbenzene	120	13.066	13.068	-0.002	99	252780	5.00	5.40	
126 2-Chlorotoluene	126	13.171	13.172	-0.001	97	187054	5.00	5.15	
127 1,3,5-Trimethylbenzene	105	13.275	13.277	-0.002	94	728075	5.00	5.27	
128 4-Chlorotoluene	126	13.293	13.294	-0.002	98	214101	5.00	5.10	
129 tert-Butylbenzene	119	13.658	13.660	-0.002	95	848574	5.00	5.37	
130 1,2,4-Trimethylbenzene	105	13.710	13.712	-0.002	96	679450	5.00	5.31	
131 sec-Butylbenzene	134	13.902	13.904	-0.002	95	225852	5.00	4.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
132 1,3-Dichlorobenzene	146	14.024	14.025	-0.001	96	335236	5.00	4.74	
133 4-Isopropyltoluene	119	14.059	14.060	-0.001	98	973704	5.00	5.38	
134 1,4-Dichlorobenzene	146	14.111	14.130	-0.019	92	412656	5.00	4.58	
137 n-Butylbenzene	91	14.476	14.495	-0.019	98	916061	5.00	5.32	
138 1,2-Dichlorobenzene	146	14.511	14.513	-0.002	93	287762	5.00	4.74	
139 1,2-Dibromo-3-Chloropropan	157	15.295	15.296	-0.001	82	21987	5.00	5.28	
141 1,2,4-Trichlorobenzene	180	16.061	16.062	-0.001	94	213085	5.00	5.32	
142 Hexachlorobutadiene	225	16.200	16.219	-0.019	98	278662	5.00	4.78	
143 Naphthalene	128	16.287	16.289	-0.002	98	183755	5.00	5.78	
144 1,2,3-Trichlorobenzene	180	16.513	16.515	-0.002	94	155326	5.00	5.65	
S 151 1,2-Dichloroethene, Total	96				0		10.0	9.28	
S 145 Trihalomethanes, Total	1				0		20.0	19.9	
S 146 Xylenes, Total (URS)	1				0		10.0	9.14	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.9	
S 149 1,2-Dichloroethene, Total	1				0		5.00	9.28	
S 150 Xylenes, Total	106				0		10.0	9.14	

Reagents:

MV-Main B_00014	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL	
MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

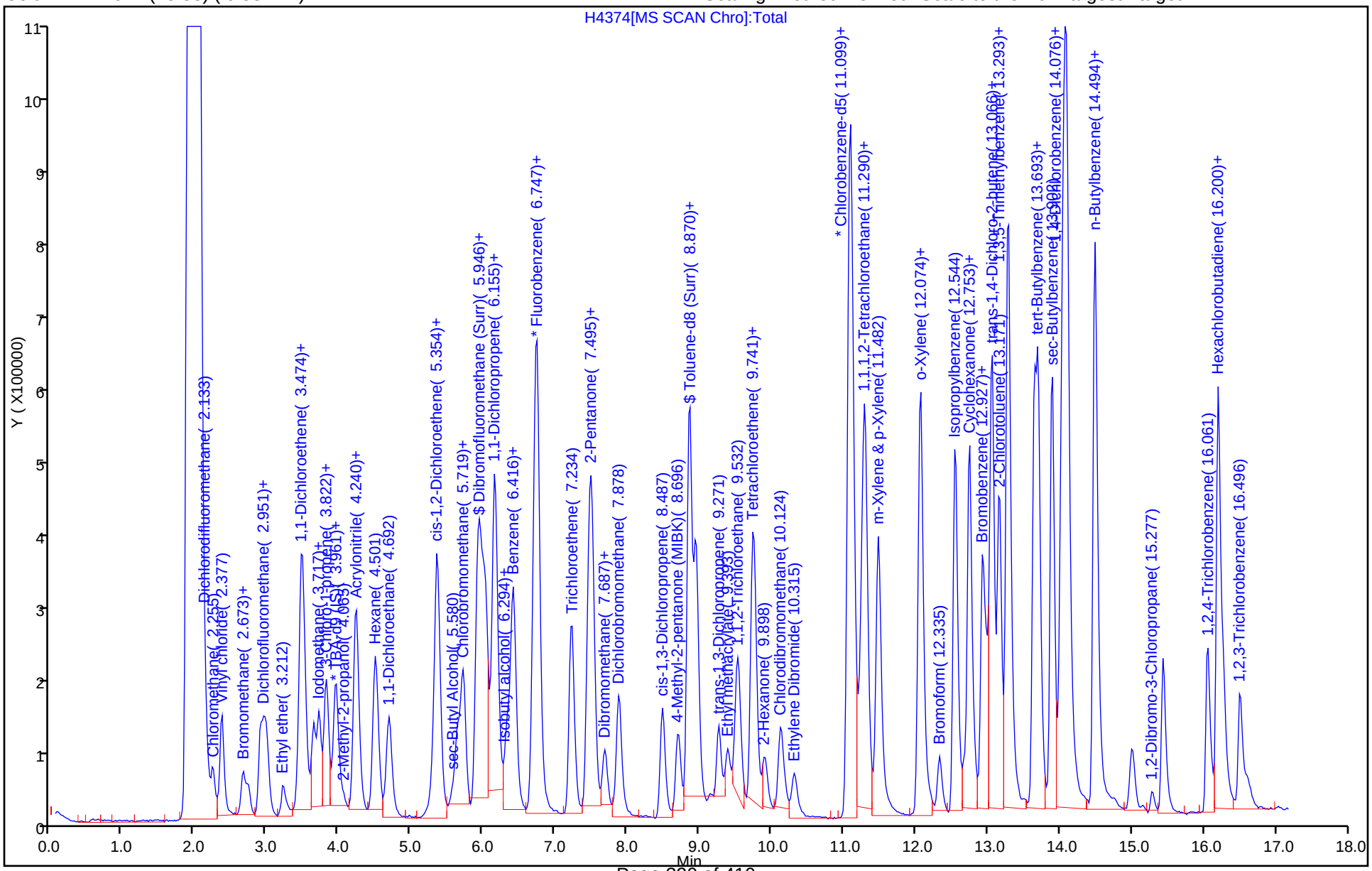
Report Date: 02-May-2016 05:30:30 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4374.D

Injection Date:	01-May-2016 13:12:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	LCS 280-322152/2-A			Worklist Smp#:	20
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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-323599/4

Matrix: Water | Lab File ID: G2_3981.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 12:14

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.35		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.54	Q	1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	4.51		1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.83		3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	4.23		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.46		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.29	Q	1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	4.73		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	3.87		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	4.37		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.36		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	5.08		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	3.79	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	4.51		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	4.39		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	4.72		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	5.25		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	4.61		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	4.50		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	4.61		1.0	0.40	0.16
123-91-1	1,4-Dioxane	72.1	J	220	160	71
544-10-5	1-Chlorohexane	4.96		1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	4.67	Q	1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	18.6		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	4.94		1.0	0.40	0.17
591-78-6	2-Hexanone	17.6		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	4.90		1.0	0.80	0.17
99-87-6	4-Isopropyltoluene	5.30		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	17.9		5.0	3.2	1.0
67-64-1	Acetone	19.3	Q	10	6.4	1.9
71-43-2	Benzene	4.72		1.0	0.40	0.16
108-86-1	Bromobenzene	4.59		1.0	0.40	0.17
75-25-2	Bromoform	4.09		1.0	0.40	0.19
74-83-9	Bromomethane	3.97		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.39		2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-323599/4

Matrix: Water | Lab File ID: G2_3981.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 12:14

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	4.57		2.0	0.40	0.19
108-90-7	Chlorobenzene	4.56		1.0	0.40	0.17
74-97-5	Chlorobromomethane	4.09	Q	1.0	0.20	0.10
124-48-1	Chlorodibromomethane	4.20		1.0	0.40	0.17
75-00-3	Chloroethane	4.59	Q	2.0	1.6	0.41
67-66-3	Chloroform	4.58	Q	1.0	0.40	0.16
74-87-3	Chloromethane	4.86	Q	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.55	Q	1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	4.55		1.0	0.40	0.16
110-82-7	Cyclohexane	4.78		2.0	0.80	0.28
74-95-3	Dibromomethane	4.20		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	4.49		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.07	Q	2.0	0.80	0.31
100-41-4	Ethylbenzene	4.73		1.0	0.40	0.16
106-93-4	Ethylene Dibromide	4.25		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	4.67		1.0	0.80	0.36
98-82-8	Isopropylbenzene	5.45		1.0	0.40	0.19
79-20-9	Methyl acetate	19.6		5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	4.14	J	5.0	0.80	0.25
108-87-2	Methylcyclohexane	4.80		2.0	0.80	0.36
75-09-2	Methylene Chloride	4.80	J Q	5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	4.81		2.0	0.80	0.34
91-20-3	Naphthalene	3.75		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.36		1.0	0.80	0.32
103-65-1	N-Propylbenzene	5.20		1.0	0.40	0.16
95-47-6	o-Xylene	4.67		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.08		1.0	0.40	0.17
100-42-5	Styrene	3.97		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	5.17		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.38		1.0	0.40	0.20
108-88-3	Toluene	5.09		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.58		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	4.28		1.0	0.40	0.19
79-01-6	Trichloroethene	4.69		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	4.74		2.0	0.80	0.29
75-01-4	Vinyl chloride	4.94	Q	1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-323599/4

Matrix: Water Lab File ID: G2_3981.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 12:14

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.: 323599 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		70-120
460-00-4	4-Bromofluorobenzene (Surr)	87		75-120
1868-53-7	Dibromofluoromethane (Surr)	83	Q	85-115
2037-26-5	Toluene-d8 (Surr)	89		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3981.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-May-2016 12:14:30 ALS Bottle#: 15 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: moanm Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:58 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 12:38:01

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	5.473	5.473	0.000	0	197916	250.0	250.0	
* 2 Fluorobenzene	96	7.419	7.419	0.000	98	1969693	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	88	404285	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	567930	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	338212	10.0	8.27	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	305003	10.0	8.77	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1632078	10.0	8.87	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	499122	10.0	8.66	
13 Dichlorodifluoromethane	85	3.811	3.825	-0.014	100	330932	5.00	5.07	
14 Chloromethane	50	4.007	4.021	-0.014	99	355380	5.00	4.86	
16 Vinyl chloride	62	4.160	4.174	-0.014	98	356167	5.00	4.94	
19 Bromomethane	94	4.509	4.510	-0.001	90	208344	5.00	3.97	
20 Chloroethane	64	4.579	4.579	0.000	100	223823	5.00	4.59	
21 Dichlorofluoromethane	67	4.705	4.719	-0.014	97	585063	5.00	4.81	
22 Trichlorofluoromethane	101	4.789	4.803	-0.014	99	446061	5.00	4.74	
25 Ethyl ether	59	4.970	4.970	0.000	92	100625	5.00	3.93	
28 Acrolein	56	5.096	5.096	0.000	99	92136	50.0	40.3	
29 Acetone	43	5.194	5.194	0.000	99	85515	20.0	19.3	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	97	178111	5.00	3.83	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	96	243106	5.00	4.29	
34 Iodomethane	142	5.403	5.417	-0.014	98	325281	5.00	4.09	
35 Methyl acetate	43	5.431	5.431	0.000	97	244812	25.0	19.6	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	458904	5.00	4.49	
37 Carbon disulfide	76	5.501	5.515	-0.014	99	1144575	5.00	4.39	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	55825	50.0	40.3	
39 Methylene Chloride	84	5.571	5.571	0.000	95	270519	5.00	4.80	
40 Acrylonitrile	53	5.711	5.711	0.000	99	258368	50.0	42.5	
41 Methyl tert-butyl ether	73	5.766	5.767	-0.001	97	301035	5.00	4.14	
42 trans-1,2-Dichloroethene	96	5.794	5.795	0.000	96	278239	5.00	4.58	
43 Hexane	57	5.976	5.976	0.000	93	476208	5.00	4.38	
44 Vinyl acetate	43	6.054	6.054	0.000	97	381757	10.0	9.20	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	468567	5.00	4.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
50 2-Butanone (MEK)	43	6.475	6.483	-0.008	100	142805	20.0	18.6	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	95	121838	150.0	120.6	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	81	245509	5.00	4.55	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	93	388956	5.00	4.67	
56 Chlorobromomethane	128	6.733	6.733	0.000	94	71874	5.00	4.09	
57 Chloroform	83	6.740	6.747	-0.007	94	404650	5.00	4.58	
58 Tetrahydrofuran	42	6.769	6.769	0.000	87	31599	10.0	7.78	
59 Isobutyl alcohol	41	6.940	6.940	0.000	92	42624	125.0	93.3	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	396562	5.00	4.54	
61 Cyclohexane	56	7.047	7.055	-0.008	92	548805	5.00	4.78	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	94	399582	5.00	4.73	
63 Carbon tetrachloride	117	7.112	7.112	0.000	96	346908	5.00	4.57	
64 1,2-Dichloroethane	62	7.212	7.219	-0.007	97	191468	5.00	4.39	
66 Benzene	78	7.248	7.248	0.000	96	1042824	5.00	4.72	
67 n-Heptane	43	7.341	7.341	0.000	93	509042	5.00	4.88	
69 Trichloroethene	95	7.705	7.713	-0.008	97	259383	5.00	4.69	
70 2-Pentanone	43	7.741	7.741	0.000	99	220931	20.0	19.0	
72 1,2-Dichloropropane	63	7.884	7.891	-0.007	95	229013	5.00	4.72	
73 Methylcyclohexane	55	7.913	7.913	0.000	95	460412	5.00	4.80	
74 1,4-Dioxane	88	7.941	7.941	0.000	89	9546	100.0	72.1	
75 Dibromomethane	93	7.991	7.991	0.000	93	70210	5.00	4.20	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	236468	5.00	4.49	
78 2-Chloroethyl vinyl ether	63	8.206	8.213	-0.007	88	5540	5.00	2.71	
79 cis-1,3-Dichloropropene	75	8.385	8.392	-0.007	94	257732	5.00	4.55	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.449	-0.007	98	251953	20.0	17.9	
81 Toluene	91	8.678	8.678	0.000	98	1088780	5.00	5.09	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	189116	5.00	4.28	
82 Ethyl methacrylate	69	8.756	8.764	-0.008	90	100759	5.00	4.12	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	97758	5.00	4.23	
85 2-Hexanone	43	9.042	9.043	0.000	98	159016	20.0	17.6	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	96	192851	5.00	4.50	
87 Tetrachloroethene	164	9.092	9.100	-0.008	96	206967	5.00	4.38	
88 Chlorodibromomethane	129	9.250	9.250	0.000	91	110740	5.00	4.20	
90 Ethylene Dibromide	107	9.371	9.371	0.000	97	84170	5.00	4.25	
91 1-Chlorohexane	91	9.607	9.607	0.000	94	394342	5.00	4.96	
92 Chlorobenzene	112	9.715	9.715	-0.001	93	608780	5.00	4.56	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.750	-0.007	94	175450	5.00	4.35	
94 Ethylbenzene	106	9.750	9.758	-0.008	99	389805	5.00	4.73	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	470853	5.00	4.81	
96 Styrene	104	10.144	10.144	0.000	81	510686	5.00	3.97	
97 o-Xylene	106	10.144	10.144	0.000	90	424557	5.00	4.67	
98 Bromoform	173	10.329	10.330	-0.001	95	47000	5.00	4.09	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	1224638	5.00	5.45	
101 Cyclohexanone	55	10.508	10.515	-0.007	94	62676	200.0	148.3	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.594	-0.007	93	100634	5.00	4.51	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	84	19761	5.00	3.30	
104 1,2,3-Trichloropropane	110	10.658	10.658	0.000	86	25414	5.00	4.37	
105 Bromobenzene	156	10.708	10.709	-0.001	95	202944	5.00	4.59	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	345250	5.00	5.20	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	94	983077	5.00	5.25	
108 2-Chlorotoluene	126	10.830	10.830	0.000	95	263942	5.00	4.94	
109 4-Chlorotoluene	126	10.901	10.909	-0.008	99	252621	5.00	4.90	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
110 tert-Butylbenzene	119	11.116	11.116	0.000	94	972216	5.00	5.17	
111 1,2,4-Trimethylbenzene	105	11.137	11.145	-0.008	98	966003	5.00	5.08	
112 sec-Butylbenzene	134	11.288	11.295	-0.007	95	270346	5.00	5.08	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	1138330	5.00	5.30	
114 1,3-Dichlorobenzene	146	11.438	11.445	-0.007	97	444972	5.00	4.61	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	433925	5.00	4.61	
117 n-Butylbenzene	91	11.731	11.738	-0.007	99	1141408	5.00	5.36	
118 1,2-Dichlorobenzene	146	11.852	11.860	-0.008	96	340637	5.00	4.51	
119 1,2-Dibromo-3-Chloropropan	157	12.567	12.568	-0.001	76	10156	5.00	3.79	
121 1,2,4-Trichlorobenzene	180	13.490	13.497	-0.007	94	202081	5.00	4.36	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	185279	5.00	4.67	
123 Naphthalene	128	13.840	13.840	0.000	98	189297	5.00	3.75	
124 1,2,3-Trichlorobenzene	180	14.148	14.148	0.000	94	135980	5.00	3.87	
S 149 1,2-Dichloroethene, Total	96				0		10.0	9.13	
S 150 Trihalomethanes, Total	1				0		20.0	17.4	
S 151 Xylenes, Total (URS)	1				0		10.0	9.48	
S 153 1,3-Dichloropropene, Total	1				0		10.0	8.83	
S 154 1,2-Dichloroethene, Total	1				0		5.00	9.13	
S 155 Xylenes, Total	106				0		10.0	9.48	

Reagents:

MV-Main B_00014	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL	
MV-SS 2-Cleve_00028	Amount Added:	2.50	Units: uL	
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent

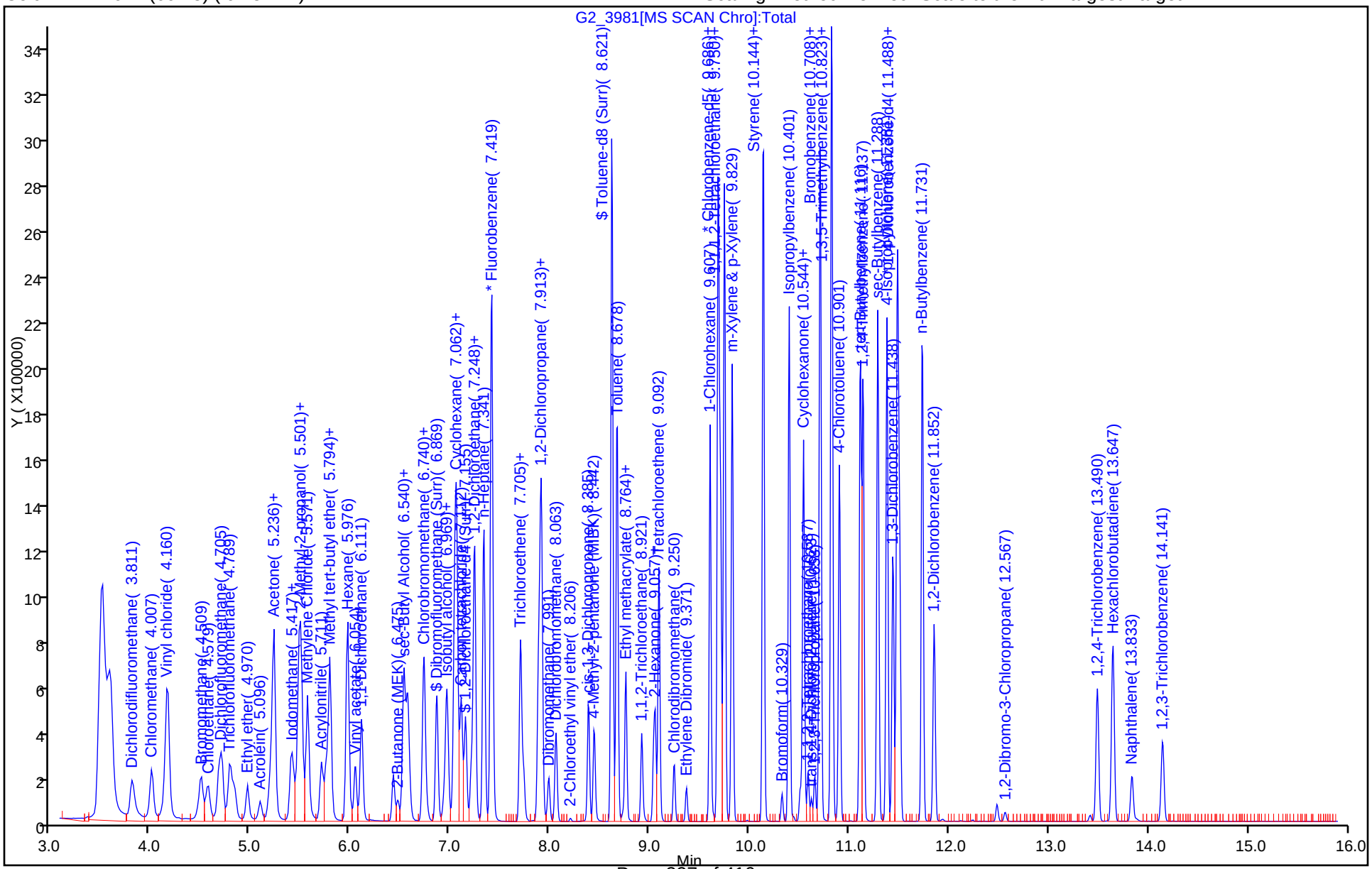
Report Date: 03-May-2016 16:34:01 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3981.D

Injection Date:	03-May-2016 12:14:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-323599/5

Matrix: Water | Lab File ID: G2_3979.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 11:35

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	4.88		1.0	0.80	0.17
71-55-6	1,1,1-Trichloroethane	4.98		1.0	0.40	0.16
79-34-5	1,1,2,2-Tetrachloroethane	5.36		1.0	0.80	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4.29		3.0	1.6	0.79
79-00-5	1,1,2-Trichloroethane	4.99		1.0	0.80	0.32
75-34-3	1,1-Dichloroethane	4.98		1.0	0.80	0.16
75-35-4	1,1-Dichloroethene	4.70		1.0	0.80	0.14
563-58-6	1,1-Dichloropropene	5.26		1.0	0.40	0.15
87-61-6	1,2,3-Trichlorobenzene	4.58		1.0	0.80	0.18
96-18-4	1,2,3-Trichloropropane	5.14		3.0	0.80	0.77
120-82-1	1,2,4-Trichlorobenzene	4.89		1.0	0.80	0.32
95-63-6	1,2,4-Trimethylbenzene	5.67		1.0	0.40	0.14
96-12-8	1,2-Dibromo-3-Chloropropane	4.76	J	5.0	1.6	0.81
95-50-1	1,2-Dichlorobenzene	5.13		1.0	0.40	0.13
107-06-2	1,2-Dichloroethane	5.06		1.0	0.40	0.13
78-87-5	1,2-Dichloropropane	5.41		1.0	0.40	0.13
108-67-8	1,3,5-Trimethylbenzene	5.86		1.0	0.40	0.14
541-73-1	1,3-Dichlorobenzene	5.16		1.0	0.40	0.16
142-28-9	1,3-Dichloropropane	5.18		1.0	0.80	0.15
106-46-7	1,4-Dichlorobenzene	5.13		1.0	0.40	0.16
123-91-1	1,4-Dioxane	93.7	J	220	160	71
544-10-5	1-Chlorohexane	5.50		1.0	0.40	0.17
594-20-7	2,2-Dichloropropane	5.03		1.0	0.40	0.20
78-93-3	2-Butanone (MEK)	21.9		6.0	4.0	1.8
95-49-8	2-Chlorotoluene	5.47		1.0	0.40	0.17
591-78-6	2-Hexanone	21.4		5.0	4.0	1.4
106-43-4	4-Chlorotoluene	5.49		1.0	0.80	0.17
99-87-6	4-Isopropyltoluene	5.90		1.0	0.40	0.17
108-10-1	4-Methyl-2-pentanone (MIBK)	21.5		5.0	3.2	1.0
67-64-1	Acetone	22.2		10	6.4	1.9
71-43-2	Benzene	5.28		1.0	0.40	0.16
108-86-1	Bromobenzene	5.27		1.0	0.40	0.17
75-25-2	Bromoform	4.87		1.0	0.40	0.19
74-83-9	Bromomethane	4.71		2.0	0.80	0.21
75-15-0	Carbon disulfide	4.88		2.0	1.6	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-82226-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-323599/5

Matrix: Water | Lab File ID: G2_3979.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/03/2016 11:35

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.: 323599 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
56-23-5	Carbon tetrachloride	5.03		2.0	0.40	0.19
108-90-7	Chlorobenzene	5.08		1.0	0.40	0.17
74-97-5	Chlorobromomethane	4.69		1.0	0.20	0.10
124-48-1	Chlorodibromomethane	4.82		1.0	0.40	0.17
75-00-3	Chloroethane	5.59		2.0	1.6	0.41
67-66-3	Chloroform	5.11		1.0	0.40	0.16
74-87-3	Chloromethane	5.34		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	5.12		1.0	0.40	0.15
10061-01-5	cis-1,3-Dichloropropene	5.30		1.0	0.40	0.16
110-82-7	Cyclohexane	5.32		2.0	0.80	0.28
74-95-3	Dibromomethane	4.84		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	5.08		1.0	0.40	0.17
75-71-8	Dichlorodifluoromethane	5.70		2.0	0.80	0.31
100-41-4	Ethylbenzene	5.23		1.0	0.40	0.16
106-93-4	Ethylene Dibromide	4.93		1.0	0.40	0.18
87-68-3	Hexachlorobutadiene	5.09		1.0	0.80	0.36
98-82-8	Isopropylbenzene	6.10		1.0	0.40	0.19
79-20-9	Methyl acetate	24.7		5.0	4.0	1.6
1634-04-4	Methyl tert-butyl ether	4.95	J	5.0	0.80	0.25
108-87-2	Methylcyclohexane	5.31		2.0	0.80	0.36
75-09-2	Methylene Chloride	5.62		5.0	0.80	0.32
179601-23-1	m-Xylene & p-Xylene	5.37		2.0	0.80	0.34
91-20-3	Naphthalene	4.39		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.91		1.0	0.80	0.32
103-65-1	N-Propylbenzene	5.80		1.0	0.40	0.16
95-47-6	o-Xylene	5.17		1.0	0.40	0.19
135-98-8	sec-Butylbenzene	5.65		1.0	0.40	0.17
100-42-5	Styrene	4.50		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	5.82		1.0	0.40	0.16
127-18-4	Tetrachloroethene	4.92		1.0	0.40	0.20
108-88-3	Toluene	5.75		1.0	0.40	0.17
156-60-5	trans-1,2-Dichloroethene	4.97		1.0	0.40	0.15
10061-02-6	trans-1,3-Dichloropropene	5.08		1.0	0.40	0.19
79-01-6	Trichloroethene	5.29		1.0	0.40	0.16
75-69-4	Trichlorofluoromethane	5.29		2.0	0.80	0.29
75-01-4	Vinyl chloride	5.44		1.5	0.20	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-323599/5

Matrix: Water Lab File ID: G2_3979.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/03/2016 11:35

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.: 323599 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-120
460-00-4	4-Bromofluorobenzene (Surr)	107		75-120
1868-53-7	Dibromofluoromethane (Surr)	103		85-115
2037-26-5	Toluene-d8 (Surr)	108		85-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3979.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-May-2016 11:35:30 ALS Bottle#: 13 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: moanm Instrument ID: VMS_G2

Method: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\AQ_VMSG2_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 03-May-2016 16:33:58 Calib Date: 12-Apr-2016 14:49:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_G2\20160412-45515.b\G2_3377.D

Column 1 : DB-624 (60.25) (0.25 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: moanm Date: 03-May-2016 12:12:54

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	5.459	5.473	-0.014	0	193125	250.0	250.0	
* 2 Fluorobenzene	96	7.412	7.419	-0.007	98	1843054	12.5	12.5	
* 3 Chlorobenzene-d5	119	9.686	9.686	0.000	89	381674	12.5	12.5	
* 4 1,4-Dichlorobenzene-d4	152	11.488	11.488	0.000	97	528465	12.5	12.5	
$ 6 Dibromofluoromethane (Surr	111	6.869	6.869	0.000	93	394526	10.0	10.3	
$ 7 1,2-Dichloroethane-d4 (Sur	65	7.155	7.155	0.000	0	354868	10.0	10.9	
$ 8 Toluene-d8 (Surr)	98	8.621	8.621	0.000	94	1875865	10.0	10.8	
$ 9 4-Bromofluorobenzene (Surr	95	10.544	10.544	0.000	85	574198	10.0	10.7	
13 Dichlorodifluoromethane	85	3.811	3.825	-0.014	99	348096	5.00	5.70	
14 Chloromethane	50	4.007	4.021	-0.014	99	365669	5.00	5.34	
16 Vinyl chloride	62	4.161	4.174	-0.013	98	367335	5.00	5.44	
19 Bromomethane	94	4.496	4.510	-0.014	90	219004	5.00	4.71	
20 Chloroethane	64	4.566	4.579	-0.013	100	241915	5.00	5.59	
21 Dichlorofluoromethane	67	4.705	4.719	-0.014	97	603829	5.00	5.31	
22 Trichlorofluoromethane	101	4.789	4.803	-0.014	98	465951	5.00	5.29	
25 Ethyl ether	59	4.971	4.970	0.001	93	114497	5.00	4.78	
28 Acrolein	56	5.096	5.096	0.000	100	102771	50.0	48.1	
29 Acetone	43	5.194	5.194	0.000	100	90524	20.0	22.2	
31 1,1,2-Trichloro-1,2,2-trif	151	5.222	5.222	0.000	97	186729	5.00	4.29	
32 1,1-Dichloroethene	96	5.236	5.236	0.000	97	249165	5.00	4.70	
34 Iodomethane	142	5.404	5.417	-0.013	98	338357	5.00	4.55	
35 Methyl acetate	43	5.431	5.431	0.000	97	288073	25.0	24.7	
36 3-Chloro-1-propene	41	5.487	5.487	0.000	84	473602	5.00	4.96	
37 Carbon disulfide	76	5.501	5.515	-0.014	99	1190831	5.00	4.88	
38 2-Methyl-2-propanol	59	5.529	5.529	0.000	92	63951	50.0	49.3	
39 Methylene Chloride	84	5.571	5.571	0.000	95	290412	5.00	5.62	
40 Acrylonitrile	53	5.711	5.711	0.000	100	281319	50.0	49.4	
41 Methyl tert-butyl ether	73	5.767	5.767	0.000	97	337229	5.00	4.95	
42 trans-1,2-Dichloroethene	96	5.795	5.795	0.001	96	282732	5.00	4.97	
43 Hexane	57	5.976	5.976	0.000	92	501268	5.00	4.88	
44 Vinyl acetate	43	6.047	6.054	-0.007	97	426616	10.0	11.0	
46 1,1-Dichloroethane	63	6.111	6.118	-0.007	96	490346	5.00	4.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
50 2-Butanone (MEK)	43	6.476	6.483	-0.007	100	157834	20.0	21.9	
52 sec-Butyl Alcohol	45	6.526	6.526	0.000	94	126413	150.0	133.1	
53 cis-1,2-Dichloroethene	96	6.540	6.540	0.000	80	258446	5.00	5.12	
54 2,2-Dichloropropane	77	6.576	6.576	0.000	91	391955	5.00	5.03	
56 Chlorobromomethane	128	6.726	6.733	-0.007	96	77100	5.00	4.69	
57 Chloroform	83	6.740	6.747	-0.007	94	422368	5.00	5.11	
58 Tetrahydrofuran	42	6.769	6.769	0.000	88	35990	10.0	9.46	
59 Isobutyl alcohol	41	6.940	6.940	0.000	92	47755	125.0	111.7	
60 1,1,1-Trichloroethane	97	6.969	6.969	0.000	98	407006	5.00	4.98	
61 Cyclohexane	56	7.048	7.055	-0.007	92	572149	5.00	5.32	
62 1,1-Dichloropropene	75	7.069	7.069	0.000	95	415954	5.00	5.26	
63 Carbon tetrachloride	117	7.112	7.112	0.000	96	357651	5.00	5.03	
64 1,2-Dichloroethane	62	7.212	7.219	-0.007	97	206569	5.00	5.06	
66 Benzene	78	7.248	7.248	0.000	96	1093307	5.00	5.28	
67 n-Heptane	43	7.334	7.341	-0.007	93	534825	5.00	5.48	
69 Trichloroethene	95	7.705	7.713	-0.008	98	273354	5.00	5.29	
70 2-Pentanone	43	7.734	7.741	-0.007	99	263919	20.0	25.0	
72 1,2-Dichloropropane	63	7.884	7.891	-0.007	95	245603	5.00	5.41	
73 Methylcyclohexane	55	7.913	7.913	0.000	95	477362	5.00	5.31	
74 1,4-Dioxane	88	7.941	7.941	0.000	86	11878	100.0	93.7	
75 Dibromomethane	93	7.992	7.991	0.001	93	75640	5.00	4.84	
76 Dichlorobromomethane	83	8.063	8.063	0.000	99	250489	5.00	5.08	
78 2-Chloroethyl vinyl ether	63	8.206	8.213	-0.007	92	6242	5.00	2.85	
79 cis-1,3-Dichloropropene	75	8.385	8.392	-0.007	94	283498	5.00	5.30	
80 4-Methyl-2-pentanone (MIBK	43	8.442	8.449	-0.007	98	283292	20.0	21.5	
81 Toluene	91	8.671	8.678	-0.007	98	1152041	5.00	5.75	
83 trans-1,3-Dichloropropene	75	8.764	8.764	0.000	98	209851	5.00	5.08	
82 Ethyl methacrylate	69	8.757	8.764	-0.007	89	114388	5.00	4.86	
84 1,1,2-Trichloroethane	97	8.921	8.921	0.000	92	108075	5.00	4.99	
85 2-Hexanone	43	9.035	9.043	-0.007	95	182064	20.0	21.4	
86 1,3-Dichloropropane	76	9.057	9.057	0.000	96	209642	5.00	5.18	
87 Tetrachloroethene	164	9.093	9.100	-0.007	96	219634	5.00	4.92	
88 Chlorodibromomethane	129	9.243	9.250	-0.007	91	120028	5.00	4.82	
90 Ethylene Dibromide	107	9.372	9.371	0.001	100	92098	5.00	4.93	
91 1-Chlorohexane	91	9.607	9.607	0.000	94	415403	5.00	5.50	
92 Chlorobenzene	112	9.715	9.715	0.000	92	641176	5.00	5.08	
93 1,1,1,2-Tetrachloroethane	131	9.743	9.750	-0.007	93	186080	5.00	4.88	
94 Ethylbenzene	106	9.750	9.758	-0.008	99	406953	5.00	5.23	
95 m-Xylene & p-Xylene	106	9.829	9.829	0.000	99	496927	5.00	5.37	
96 Styrene	104	10.137	10.144	-0.007	82	546719	5.00	4.50	
97 o-Xylene	106	10.144	10.144	0.000	90	443316	5.00	5.17	
98 Bromoform	173	10.330	10.330	0.000	95	52825	5.00	4.87	
99 Isopropylbenzene	105	10.401	10.401	0.000	96	1275669	5.00	6.10	
101 Cyclohexanone	55	10.508	10.515	-0.007	94	68561	200.0	169.3	
102 1,1,2,2-Tetrachloroethane	83	10.587	10.594	-0.007	92	111275	5.00	5.36	
103 trans-1,4-Dichloro-2-buten	53	10.623	10.623	0.000	83	22336	5.00	4.01	
104 1,2,3-Trichloropropane	110	10.659	10.658	0.001	87	27791	5.00	5.14	
105 Bromobenzene	156	10.709	10.709	0.000	95	216735	5.00	5.27	
106 N-Propylbenzene	120	10.716	10.716	0.000	99	358719	5.00	5.80	
107 1,3,5-Trimethylbenzene	105	10.823	10.823	0.000	95	1020920	5.00	5.86	
108 2-Chlorotoluene	126	10.830	10.830	0.000	94	271838	5.00	5.47	
109 4-Chlorotoluene	126	10.902	10.909	-0.007	99	263299	5.00	5.49	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
110 tert-Butylbenzene	119	11.109	11.116	-0.007	94	1018941	5.00	5.82	
111 1,2,4-Trimethylbenzene	105	11.138	11.145	-0.007	98	1003597	5.00	5.67	
112 sec-Butylbenzene	134	11.288	11.295	-0.007	95	279438	5.00	5.65	
113 4-Isopropyltoluene	119	11.381	11.381	0.000	97	1179419	5.00	5.90	
114 1,3-Dichlorobenzene	146	11.438	11.445	-0.007	97	462683	5.00	5.16	
116 1,4-Dichlorobenzene	146	11.509	11.509	0.000	94	449280	5.00	5.13	
117 n-Butylbenzene	91	11.731	11.738	-0.007	99	1170830	5.00	5.91	
118 1,2-Dichlorobenzene	146	11.853	11.860	-0.007	96	360792	5.00	5.13	
119 1,2-Dibromo-3-Chloropropan	157	12.568	12.568	0.000	75	11852	5.00	4.76	
121 1,2,4-Trichlorobenzene	180	13.490	13.497	-0.007	93	210833	5.00	4.89	
122 Hexachlorobutadiene	225	13.647	13.647	0.000	98	187985	5.00	5.09	
123 Naphthalene	128	13.833	13.840	-0.007	98	211270	5.00	4.39	
124 1,2,3-Trichlorobenzene	180	14.141	14.148	-0.007	94	149557	5.00	4.58	
S 149 1,2-Dichloroethene, Total	96				0		10.0	10.1	
S 150 Trihalomethanes, Total	1				0		20.0	19.9	
S 151 Xylenes, Total (URS)	1				0		10.0	10.5	
S 153 1,3-Dichloropropene, Total	1				0		10.0	10.4	
S 154 1,2-Dichloroethene, Total	1				0		5.00	10.1	
S 155 Xylenes, Total	106				0		10.0	10.5	

Reagents:

MV-Main B_00014	Amount Added:	2.50	Units: uL		
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL		
MV-SS 2-Cleve_00028	Amount Added:	2.50	Units: uL		
MV-567649-D_00001	Amount Added:	1.00	Units: uL	Run Reagent	
MV-ARCH SS A_00067	Amount Added:	0.80	Units: uL	Run Reagent	

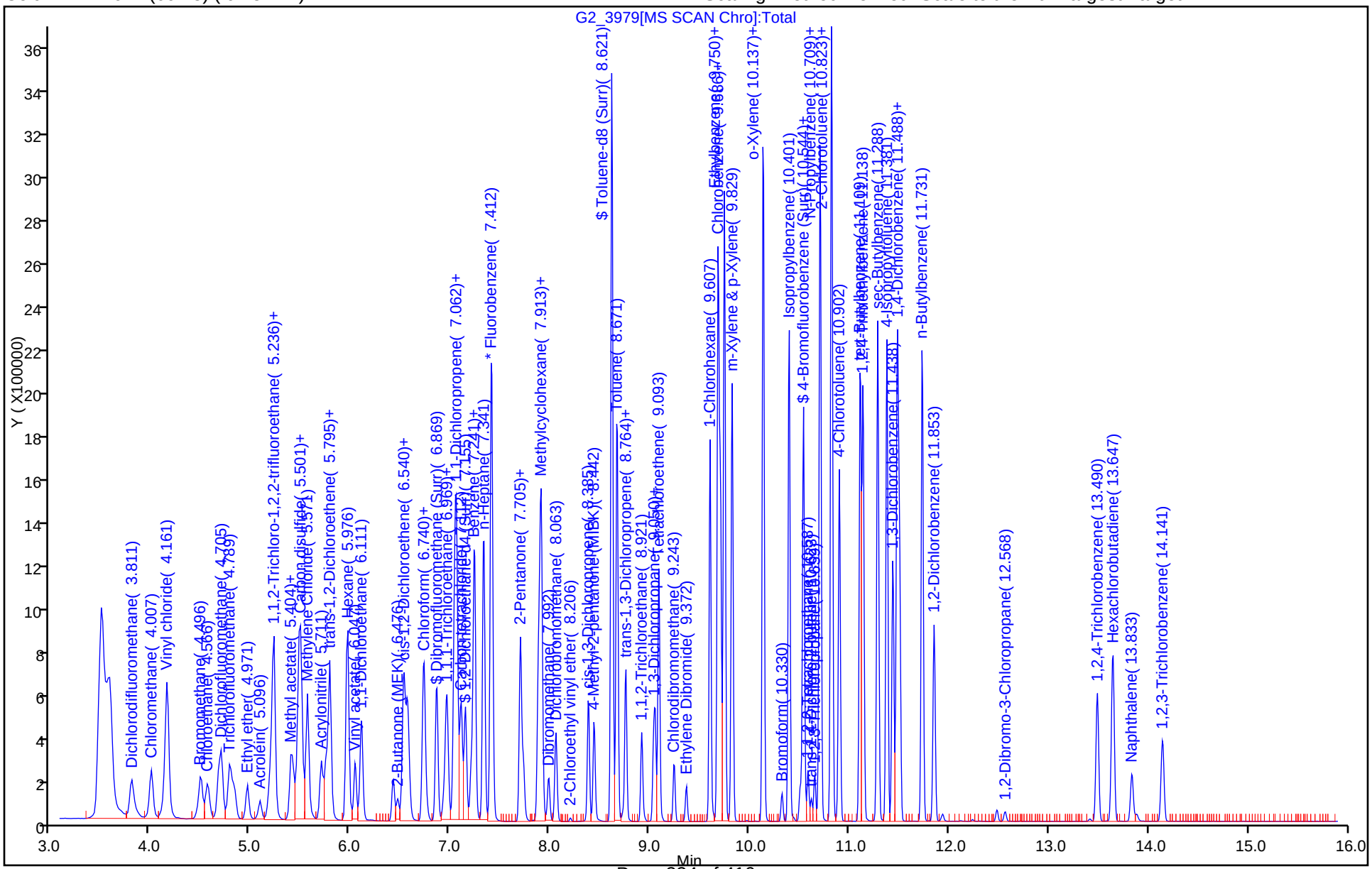
Report Date: 03-May-2016 16:34:03 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b\G2_3979.D

Injection Date:	03-May-2016 11:35:30	Instrument ID:	VMS_G2	Operator ID:	moanm
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	AQ_VMSG2_8260	Limit Group:	MSV - 8260B Water and Solid		

Column: DB-624 (60.25) (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.: 280-82226-1

SDG No.:

Client Sample ID: 774776CARBON041916 MS | Lab Sample ID: 280-82226-1 MS

Matrix: Solid (TCLP) | Lab File ID: H4378.D

Analysis Method: 8260B | Date Collected: 04/19/2016 12:40

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 14:47

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-35-4	1,1-Dichloroethene	48.0		10	8.0	2.3
107-06-2	1,2-Dichloroethane	57.6		10	4.0	1.3
78-93-3	2-Butanone (MEK)	291		100	64	18
71-43-2	Benzene	50.4		10	4.0	1.6
56-23-5	Carbon tetrachloride	46.2		10	4.0	1.9
108-90-7	Chlorobenzene	47.6		10	4.0	1.7
67-66-3	Chloroform	50.2		10	4.0	1.6
127-18-4	Tetrachloroethene	39.8		10	4.0	2.0
79-01-6	Trichloroethene	52.5		10	4.0	1.6
75-01-4	Vinyl chloride	61.3		10	2.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		64-129
460-00-4	4-Bromofluorobenzene (Surr)	95		78-121
1868-53-7	Dibromofluoromethane (Surr)	101		79-119
2037-26-5	Toluene-d8 (Surr)	103		78-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4378.D
Lims ID: 280-82226-A-1-A MS
Client ID:
Sample Type: MS
Inject. Date: 01-May-2016 14:47:30 ALS Bottle#: 20 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-A-1-A ms 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 02-May-2016 05:21:50

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	3.978	3.980	-0.002	95	103246	250.0	250.0	
* 2 Fluorobenzene	96	6.763	6.766	-0.003	98	711695	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					ND	
* 4 Chlorobenzene-d5	119	11.116	11.101	0.015	87	172889	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.110	14.095	0.015	97	268712	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.930	-0.002	93	317651	9.00	9.08	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.345	6.348	-0.003	99	131811	9.00	9.62	
$ 10 Toluene-d8 (Surr)	98	8.887	8.872	0.015	93	719941	9.00	9.27	
$ 11 4-Bromofluorobenzene (Surr	95	12.770	12.755	0.016	88	334367	9.00	8.56	
$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95	2.672	2.482	0.190	0	17432		NR	7
28 Dichlorodifluoromethane	85	2.132	2.135	-0.003	99	193304	5.00	5.84	
27 Chlorotrifluoroethene	116		2.173					ND	
30 Chloromethane	50	2.254	2.257	-0.003	99	98127	5.00	6.38	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329					ND	
32 Vinyl chloride	62	2.359	2.361	-0.002	97	114444	5.00	6.13	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521					ND	
34 Ethylene oxide	43		2.638					ND	
35 Bromomethane	94	2.672	2.674	-0.002	91	115419	5.00	6.20	
36 Chloroethane	64	2.742	2.744	-0.002	99	89524	5.00	7.48	
37 Dichlorofluoromethane	67	2.916	2.918	-0.002	97	354236	5.00	7.00	
38 Trichlorofluoromethane	101	2.985	2.988	-0.003	100	361204	5.00	6.83	
39 Ethanol	45		3.143					ND	
40 Ethyl ether	59	3.229	3.214	0.015	94	46289	5.00	6.18	
43 Propene oxide	58		3.299					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374					ND	
44 Acrolein	56		3.375					ND	
45 1,1-Dichloroethene	96	3.473	3.475	-0.002	95	125368	5.00	4.80	
46 1,1,2-Trichloro-1,2,2-trif	151	3.508	3.493	0.015	96	174420	5.00	4.12	
47 Acetone	43	3.525	3.510	0.015	99	35704	20.0	36.4	
49 Isopropyl alcohol	45		3.630					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	3.647	3.649	-0.002	99	280949	5.00	4.24	
50 Carbon disulfide	76	3.734	3.719	0.015	100	423999	5.00	4.78	
51 Acetonitrile	41		3.804					ND	
52 3-Chloro-1-propene	41	3.821	3.823	-0.002	92	238104	5.00	6.63	
53 Methyl acetate	43	3.839	3.823	0.015	98	127199	25.0	35.6	
54 Methylene Chloride	84	3.960	3.945	0.015	99	124883	5.00	6.90	
55 2-Methyl-2-propanol	59	4.082	4.067	0.015	94	34936	50.0	59.5	
57 Acrylonitrile	53	4.222	4.206	0.016	98	56006	50.0	59.5	
56 Methyl tert-butyl ether	73	4.239	4.241	-0.002	78	154852	5.00	5.26	
58 trans-1,2-Dichloroethene	96	4.239	4.241	-0.002	97	126079	5.00	4.77	
59 Hexane	57	4.517	4.502	0.015	95	184768	5.00	4.17	
60 1,1-Dichloroethane	63	4.709	4.694	0.015	95	223270	5.00	5.00	
61 Vinyl acetate	43		4.715					ND	
62 Isopropyl ether	87		4.744					ND	
63 2-Chloro-1,3-butadiene	53		4.797					ND	
64 Tert-butyl ethyl ether	59		5.162					ND	
65 cis-1,2-Dichloroethene	96	5.371	5.355	0.016	85	121498	5.00	4.91	
66 2,2-Dichloropropane	77	5.371	5.373	-0.002	85	225617	5.00	4.30	
67 2-Butanone (MEK)	43	5.388	5.373	0.015	39	49750	20.0	29.1	
69 Ethyl acetate	43		5.423					ND	
70 Propionitrile	54		5.458					ND	
71 sec-Butyl Alcohol	45	5.597	5.582	0.015	97	73982	150.0	134.4	
72 Methacrylonitrile	41		5.615					ND	
73 Chlorobromomethane	128	5.667	5.651	0.015	95	52071	5.00	5.27	
74 Tetrahydrofuran	42	5.736	5.704	0.032	44	17211	10.0	12.6	
75 Chloroform	83	5.736	5.721	0.015	94	237341	5.00	5.02	
76 1,1,1-Trichloroethane	97	5.980	5.965	0.015	99	251449	5.00	4.64	
77 Cyclohexane	56	6.050	6.034	0.016	90	235980	5.00	5.06	
78 1,1-Dichloropropene	75	6.171	6.156	0.015	97	227118	5.00	4.88	
79 Carbon tetrachloride	117	6.189	6.174	0.015	96	257730	5.00	4.62	
80 Isobutyl alcohol	41	6.311	6.296	0.015	91	25702	125.0	127.5	
81 Benzene	78	6.433	6.417	0.016	96	374309	5.00	5.04	
82 1,2-Dichloroethane	62	6.450	6.435	0.015	95	86255	5.00	5.76	
83 Tert-amyl methyl ether	73		6.537					ND	
84 n-Heptane	43	6.728	6.713	0.015	94	291644	5.00	5.26	
85 n-Butanol	56		7.147					ND	
86 Trichloroethene	95	7.233	7.236	-0.003	97	192672	5.00	5.25	
88 2-Pentanone	43	7.477	7.462	0.015	63	117977	20.0	12.2	
89 Methylcyclohexane	55	7.495	7.479	0.016	93	224983	5.00	5.30	
90 1,2-Dichloropropane	63	7.529	7.532	-0.003	98	132445	5.00	5.73	
91 Methyl methacrylate	100		7.669					ND	
92 Dibromomethane	93	7.703	7.688	0.015	96	57242	5.00	5.13	
93 1,4-Dioxane	88	7.738	7.741	-0.003	30	5586	100.0	105.0	
94 Dichlorobromomethane	83	7.895	7.897	-0.002	99	188702	5.00	4.95	
95 2-Nitropropane	41		8.191					ND	
96 2-Chloroethyl vinyl ether	63		8.284					ND	
97 cis-1,3-Dichloropropene	75	8.504	8.489	0.015	96	168286	5.00	5.09	
98 4-Methyl-2-pentanone (MIBK	43	8.731	8.715	0.016	96	169470	20.0	26.6	
99 Toluene	91	8.974	8.959	0.015	98	436518	5.00	4.74	
100 trans-1,3-Dichloropropene	75	9.288	9.273	0.015	93	112823	5.00	5.37	
101 Ethyl methacrylate	69	9.410	9.412	-0.002	90	83658	5.00	5.53	
102 1,1,2-Trichloroethane	97	9.549	9.534	0.015	57	73487	5.00	5.78	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Tetrachloroethene	164	9.758	9.743	0.015	96	163197	5.00	3.98	
104 1,3-Dichloropropane	76	9.793	9.777	0.016	89	118205	5.00	5.22	
105 2-Hexanone	43	9.932	9.917	0.015	97	104631	20.0	23.5	
107 Tetrahydrothiophene	60		10.124					ND	
108 Chlorodibromomethane	129	10.158	10.143	0.015	90	138606	5.00	4.79	
109 Ethylene Dibromide	107	10.332	10.317	0.015	98	85087	5.00	5.49	
110 1-Chlorohexane	91	11.116	11.101	0.015	97	247986	5.00	4.39	
111 Chlorobenzene	112	11.151	11.135	0.016	93	308792	5.00	4.76	
112 1,1,1,2-Tetrachloroethane	131	11.290	11.275	0.015	95	149924	5.00	4.17	
113 Ethylbenzene	106	11.325	11.310	0.015	99	165268	5.00	4.58	
114 m-Xylene & p-Xylene	106	11.499	11.501	-0.002	99	218203	5.00	4.59	
115 o-Xylene	106	12.073	12.076	-0.003	95	187166	5.00	4.56	
116 Styrene	104	12.108	12.093	0.015	94	267747	5.00	4.44	
117 Bromoform	173	12.352	12.337	0.015	97	72444	5.00	5.09	
118 Isopropylbenzene	105	12.578	12.563	0.015	96	635575	5.00	4.96	
119 cis-1,4-Dichloro-2-butene	53		12.648					ND	
120 Cyclohexanone	55	12.700	12.685	0.015	90	45986	200.0	245.9	
121 1,1,2,2-Tetrachloroethane	83	12.961	12.946	0.015	71	87851	5.00	5.52	
122 Bromobenzene	156	12.961	12.946	0.015	94	130780	5.00	4.59	
123 1,2,3-Trichloropropane	110	12.996	12.998	-0.002	80	20939	5.00	5.50	
124 trans-1,4-Dichloro-2-buten	53	13.031	13.016	0.015	74	19462	5.00	6.20	
125 N-Propylbenzene	120	13.083	13.068	0.015	98	164810	5.00	5.06	
126 2-Chlorotoluene	126	13.187	13.172	0.015	96	124049	5.00	4.91	
127 1,3,5-Trimethylbenzene	105	13.292	13.277	0.015	96	448453	5.00	4.67	
128 4-Chlorotoluene	126	13.309	13.294	0.015	98	141853	5.00	4.85	
129 tert-Butylbenzene	119	13.675	13.660	0.015	94	530876	5.00	4.83	
130 1,2,4-Trimethylbenzene	105	13.727	13.712	0.015	96	409645	5.00	4.61	
22 Pentachloroethane	167		13.716					ND	
131 sec-Butylbenzene	134	13.919	13.904	0.015	94	145243	5.00	4.49	
132 1,3-Dichlorobenzene	146	14.041	14.025	0.015	96	214531	5.00	4.36	
133 4-Isopropyltoluene	119	14.075	14.060	0.015	98	594942	5.00	4.73	
134 1,4-Dichlorobenzene	146	14.128	14.130	-0.002	93	272585	5.00	4.35	
135 1,2,3-Trimethylbenzene	105		14.163					ND	
137 n-Butylbenzene	91	14.493	14.495	-0.002	98	503387	5.00	4.20	
138 1,2-Dichlorobenzene	146	14.528	14.513	0.015	96	186747	5.00	4.42	
139 1,2-Dibromo-3-Chloropropan	157	15.311	15.296	0.015	85	14293	5.00	4.93	
140 1,3,5-Trichlorobenzene	180		15.486					ND	
141 1,2,4-Trichlorobenzene	180	16.077	16.062	0.015	94	118211	5.00	4.25	
142 Hexachlorobutadiene	225	16.217	16.219	-0.002	97	142919	5.00	3.52	
143 Naphthalene	128	16.304	16.289	0.015	97	102318	5.00	4.63	
144 1,2,3-Trichlorobenzene	180	16.530	16.515	0.015	94	81442	5.00	4.26	
21 2,4-Dimethylpentane	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	
19 2,3-Dimethylpentane	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	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
S 151 1,2-Dichloroethene, Total	96				0		10.0	9.68	
S 145 Trihalomethanes, Total	1				0		20.0	19.8	
S 146 Xylenes, Total (URS)	1				0		10.0	9.15	
S 147 Total BTEX	1				0			23.5	
S 148 1,3-Dichloropropene, Total	1				0		10.0	10.5	
S 149 1,2-Dichloroethene, Total	1				0		5.00	9.68	
S 150 Xylenes, Total	106				0		10.0	9.15	
S 160 TAH	1				0			0	
T 25 Dichloroacetonitrile TIC	74		0.000					ND	
T 26 2,3-dichloro-1-propene TIC	75	6.171	0.000	6.171	91	227118		16.4	
T 68 Propene oxide TIC	58		0.000					ND	
T 153 Propene TIC	1		0.000					ND	
T 155 4-Ethyltoluene TIC	1	13.727	0.000	13.727	91	407356		29.5	
T 154 Dicyclopentadiene TIC	1		0.000					ND	
T 156 1,3-Butadiene TIC	1	2.376	0.000	2.376	87	92188		6.67	
T 161 n-Nonane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

MV-Main B_00014	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL	
MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

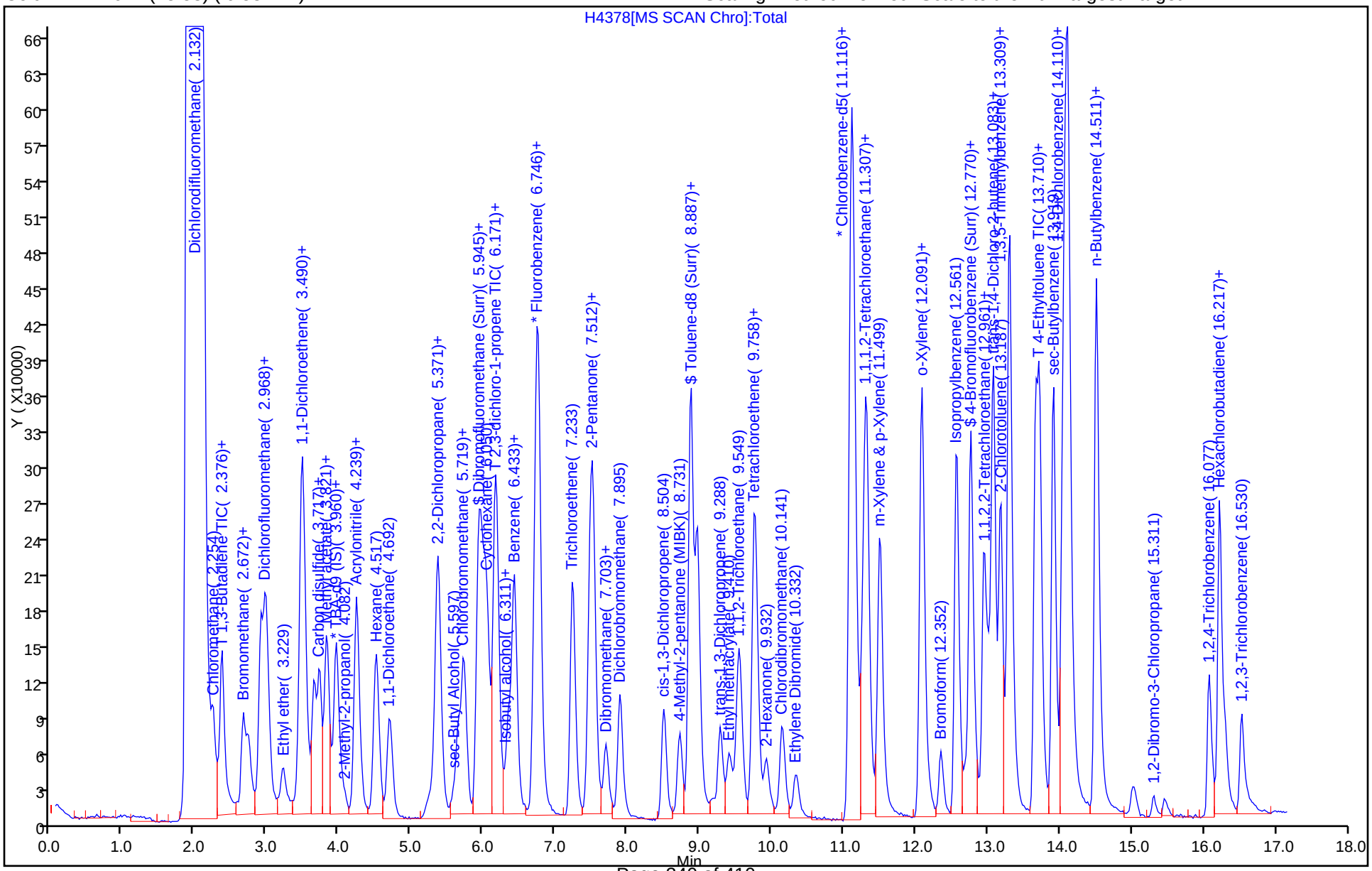
Report Date: 02-May-2016 05:30:39 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4378.D

Injection Date:	01-May-2016 14:47:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	280-82226-A-1-A MS			Worklist Smp#:	23
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
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.: 280-82226-1

SDG No.:

Client Sample ID: 774776CARBON041916 MSD | Lab Sample ID: 280-82226-1 MSD

Matrix: Solid (TCLP) | Lab File ID: H4379.D

Analysis Method: 8260B | Date Collected: 04/19/2016 12:40

Sample wt/vol: 2(mL) | Date Analyzed: 05/01/2016 15:10

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.: 323371 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-35-4	1,1-Dichloroethene	37.4	J	10	8.0	2.3
107-06-2	1,2-Dichloroethane	68.3	Q J	10	4.0	1.3
78-93-3	2-Butanone (MEK)	347	J	100	64	18
71-43-2	Benzene	50.4	Q	10	4.0	1.6
56-23-5	Carbon tetrachloride	48.6	Q	10	4.0	1.9
108-90-7	Chlorobenzene	44.6		10	4.0	1.7
67-66-3	Chloroform	53.5		10	4.0	1.6
127-18-4	Tetrachloroethene	35.7		10	4.0	2.0
79-01-6	Trichloroethene	41.0	Q J	10	4.0	1.6
75-01-4	Vinyl chloride	64.7		10	2.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	130	Q	64-129
460-00-4	4-Bromofluorobenzene (Surr)	95		78-121
1868-53-7	Dibromofluoromethane (Surr)	106		79-119
2037-26-5	Toluene-d8 (Surr)	101		78-120

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4379.D
Lims ID: 280-82226-A-1-A MSD
Client ID:
Sample Type: MSD
Inject. Date: 01-May-2016 15:10:30 ALS Bottle#: 21 Worklist Smp#: 24
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 280-82226-A-1-A msd 2ml
Operator ID: wickhamt Instrument ID: VMS_H

Method: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\AQ_VMSH_8260.m
Limit Group: MSV - 8260B Water and Solid
Last Update: 02-May-2016 05:29:32 Calib Date: 20-Apr-2016 14:43:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D

Column 1 : DB-624 (75.53) (0.53 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: wickhamt Date: 02-May-2016 05:23:20

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	3.979	3.980	-0.001	96	143429	250.0	250.0	
* 2 Fluorobenzene	96	6.764	6.766	-0.002	96	906815	12.5	12.5	
* 3 1,4-Dioxane-d8	96		8.670					ND	
* 4 Chlorobenzene-d5	119	11.099	11.101	-0.002	87	191787	12.5	12.5	
* 5 1,4-Dichlorobenzene-d4	152	14.111	14.095	0.016	97	298939	12.5	12.5	
$ 8 Dibromofluoromethane (Surr	111	5.928	5.930	-0.002	93	425534	9.00	9.55	
$ 9 1,2-Dichloroethane-d4 (Sur	65	6.346	6.348	-0.002	99	204542	9.00	11.7	
$ 10 Toluene-d8 (Surr)	98	8.871	8.872	-0.001	93	785453	9.00	9.11	
$ 11 4-Bromofluorobenzene (Surr	95	12.770	12.755	0.016	88	372978	9.00	8.58	
$ 152 Trifluorotoluene (Surr)	1		0.000					ND	
$ 7 BFB	95	2.655	2.482	0.173	0	19870		NR	7
28 Dichlorodifluoromethane	85	2.133	2.135	-0.002	99	254425	5.00	6.04	
27 Chlorotrifluoroethene	116		2.173					ND	
30 Chloromethane	50	2.238	2.257	-0.019	99	132389	5.00	6.75	
29 1,2-Dichloro-1,1,2,2-tetra	85		2.329					ND	
32 Vinyl chloride	62	2.359	2.361	-0.002	98	153912	5.00	6.47	
33 2-Chloro-1,1,1-Trifluoroet	118		2.521					ND	
34 Ethylene oxide	43		2.638					ND	
35 Bromomethane	94	2.673	2.674	-0.001	91	119170	5.00	5.03	
36 Chloroethane	64	2.742	2.744	-0.002	100	93043	5.00	6.10	
37 Dichlorofluoromethane	67	2.899	2.918	-0.019	97	375693	5.00	5.83	
38 Trichlorofluoromethane	101	2.969	2.988	-0.019	99	385215	5.00	5.72	
39 Ethanol	45		3.143					ND	
40 Ethyl ether	59	3.213	3.214	-0.002	95	55465	5.00	5.81	
43 Propene oxide	58		3.299					ND	
41 1,2-Dichloro-1,1,2-trifluo	117		3.322					ND	
42 1,1,1-Trifluoro-2,2-dichlo	83		3.374					ND	
44 Acrolein	56		3.375					ND	
45 1,1-Dichloroethene	96	3.474	3.475	-0.001	93	124382	5.00	3.74	
46 1,1,2-Trichloro-1,2,2-trif	151	3.491	3.493	-0.002	97	168672	5.00	3.13	
47 Acetone	43	3.508	3.510	-0.002	99	53171	20.0	42.5	
49 Isopropyl alcohol	45		3.630					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	3.648	3.649	-0.001	98	274819	5.00	3.26	
50 Carbon disulfide	76	3.735	3.719	0.016	100	420379	5.00	3.72	
51 Acetonitrile	41		3.804					ND	
52 3-Chloro-1-propene	41	3.822	3.823	-0.001	85	243268	5.00	5.31	
53 Methyl acetate	43	3.839	3.823	0.016	97	144389	25.0	31.7	
54 Methylene Chloride	84	3.961	3.945	0.016	99	133592	5.00	5.70	
55 2-Methyl-2-propanol	59	4.066	4.067	-0.001	96	46971	50.0	57.6	
57 Acrylonitrile	53	4.222	4.206	0.016	100	84549	50.0	70.5	
56 Methyl tert-butyl ether	73	4.240	4.241	-0.001	79	221970	5.00	5.91	
58 trans-1,2-Dichloroethene	96	4.240	4.241	-0.001	94	155132	5.00	4.61	
59 Hexane	57	4.518	4.502	0.016	96	253807	5.00	5.16	
60 1,1-Dichloroethane	63	4.692	4.694	-0.002	96	316096	5.00	5.56	
61 Vinyl acetate	43	4.727	4.715	0.012	21	4833		0.2442	
62 Isopropyl ether	87		4.744					ND	
63 2-Chloro-1,3-butadiene	53		4.797					ND	
64 Tert-butyl ethyl ether	59		5.162					ND	
65 cis-1,2-Dichloroethene	96	5.371	5.355	0.016	86	150597	5.00	4.78	
66 2,2-Dichloropropane	77	5.371	5.373	-0.002	91	319919	5.00	4.79	
67 2-Butanone (MEK)	43	5.371	5.373	-0.002	80	75642	20.0	34.7	
69 Ethyl acetate	43		5.423					ND	
70 Propionitrile	54		5.458					ND	
71 sec-Butyl Alcohol	45	5.598	5.582	0.016	98	119009	150.0	155.6	
72 Methacrylonitrile	41		5.615					ND	
73 Chlorobromomethane	128	5.650	5.651	-0.001	94	66097	5.00	5.25	
74 Tetrahydrofuran	42	5.719	5.704	0.015	71	25529	10.0	14.6	
75 Chloroform	83	5.737	5.721	0.016	94	322669	5.00	5.35	
76 1,1,1-Trichloroethane	97	5.981	5.965	0.016	97	340194	5.00	4.93	
77 Cyclohexane	56	6.050	6.034	0.016	92	303346	5.00	5.11	
78 1,1-Dichloropropene	75	6.172	6.156	0.016	94	293478	5.00	4.95	
79 Carbon tetrachloride	117	6.190	6.174	0.016	97	345770	5.00	4.86	
80 Isobutyl alcohol	41	6.311	6.296	0.015	90	48859	125.0	174.5	
81 Benzene	78	6.433	6.417	0.016	98	476848	5.00	5.04	
82 1,2-Dichloroethane	62	6.451	6.435	0.016	96	130362	5.00	6.83	
83 Tert-amyl methyl ether	73		6.537					ND	
84 n-Heptane	43	6.729	6.713	0.016	96	391954	5.00	5.55	
85 n-Butanol	56		7.147					ND	
86 Trichloroethene	95	7.234	7.236	-0.002	97	191855	5.00	4.10	
88 2-Pentanone	43	7.478	7.462	0.016	97	128625	20.0	10.5	
89 Methylcyclohexane	55	7.495	7.479	0.016	93	221338	5.00	4.09	
90 1,2-Dichloropropane	63	7.530	7.532	-0.002	97	136160	5.00	4.63	
91 Methyl methacrylate	100		7.669					ND	
92 Dibromomethane	93	7.704	7.688	0.016	97	61932	5.00	4.36	
93 1,4-Dioxane	88	7.739	7.741	-0.002	30	6698	100.0	99.6	
94 Dichlorobromomethane	83	7.896	7.897	-0.001	99	198617	5.00	4.09	
95 2-Nitropropane	41		8.191					ND	
96 2-Chloroethyl vinyl ether	63		8.284					ND	
97 cis-1,3-Dichloropropene	75	8.505	8.489	0.016	96	180709	5.00	4.93	
98 4-Methyl-2-pentanone (MIBK	43	8.714	8.715	-0.001	97	205775	20.0	25.3	
99 Toluene	91	8.975	8.959	0.016	98	461901	5.00	3.94	
100 trans-1,3-Dichloropropene	75	9.288	9.273	0.015	94	122324	5.00	4.57	
101 Ethyl methacrylate	69	9.410	9.412	-0.002	89	99298	5.00	5.91	
102 1,1,2-Trichloroethane	97	9.550	9.534	0.016	62	80692	5.00	4.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Tetrachloroethene	164	9.758	9.743	0.015	96	162369	5.00	3.57	
104 1,3-Dichloropropane	76	9.793	9.777	0.016	89	130669	5.00	5.20	
105 2-Hexanone	43	9.933	9.917	0.016	97	124444	20.0	25.2	
107 Tetrahydrothiophene	60		10.124					ND	
108 Chlorodibromomethane	129	10.142	10.143	-0.001	90	149773	5.00	4.67	
109 Ethylene Dibromide	107	10.333	10.317	0.016	98	96043	5.00	5.58	
110 1-Chlorohexane	91	11.116	11.101	0.015	95	238559	5.00	3.81	
111 Chlorobenzene	112	11.151	11.135	0.016	93	320912	5.00	4.46	
112 1,1,1,2-Tetrachloroethane	131	11.291	11.275	0.016	93	156547	5.00	3.92	
113 Ethylbenzene	106	11.325	11.310	0.015	98	165300	5.00	4.13	
114 m-Xylene & p-Xylene	106	11.499	11.501	-0.002	99	221216	5.00	4.20	
115 o-Xylene	106	12.074	12.076	-0.002	96	187846	5.00	4.12	
116 Styrene	104	12.091	12.093	-0.002	95	275616	5.00	4.12	
117 Bromoform	173	12.353	12.337	0.016	97	81240	5.00	5.14	
118 Isopropylbenzene	105	12.561	12.563	-0.002	96	621667	5.00	4.36	
119 cis-1,4-Dichloro-2-butene	53		12.648					ND	
120 Cyclohexanone	55	12.701	12.685	0.016	90	55451	200.0	267.2	
121 1,1,2,2-Tetrachloroethane	83	12.944	12.946	-0.002	91	98808	5.00	5.58	
122 Bromobenzene	156	12.944	12.946	-0.002	94	138299	5.00	4.37	
123 1,2,3-Trichloropropane	110	12.997	12.998	-0.001	79	24823	5.00	5.86	
124 trans-1,4-Dichloro-2-buten	53	13.014	13.016	-0.002	60	22953	5.00	6.57	
125 N-Propylbenzene	120	13.084	13.068	0.016	99	159184	5.00	4.39	
126 2-Chlorotoluene	126	13.188	13.172	0.016	97	125718	5.00	4.47	
127 1,3,5-Trimethylbenzene	105	13.293	13.277	0.016	95	451997	5.00	4.23	
128 4-Chlorotoluene	126	13.310	13.294	0.016	99	143704	5.00	4.42	
129 tert-Butylbenzene	119	13.676	13.660	0.016	95	531189	5.00	4.35	
130 1,2,4-Trimethylbenzene	105	13.728	13.712	0.016	95	414821	5.00	4.19	
22 Pentachloroethane	167		13.716					ND	
131 sec-Butylbenzene	134	13.919	13.904	0.015	94	139501	5.00	3.88	
132 1,3-Dichlorobenzene	146	14.041	14.025	0.016	96	230489	5.00	4.21	
133 4-Isopropyltoluene	119	14.076	14.060	0.016	98	588043	5.00	4.20	
134 1,4-Dichlorobenzene	146	14.128	14.130	-0.002	95	289495	5.00	4.15	
135 1,2,3-Trimethylbenzene	105		14.163					ND	
137 n-Butylbenzene	91	14.494	14.495	-0.001	98	501796	5.00	3.77	
138 1,2-Dichlorobenzene	146	14.529	14.513	0.016	97	204484	5.00	4.35	
139 1,2-Dibromo-3-Chloropropan	157	15.312	15.296	0.016	87	18344	5.00	5.69	
140 1,3,5-Trichlorobenzene	180		15.486					ND	
141 1,2,4-Trichlorobenzene	180	16.078	16.062	0.016	94	134567	5.00	4.34	
142 Hexachlorobutadiene	225	16.217	16.219	-0.002	97	149136	5.00	3.31	
143 Naphthalene	128	16.304	16.289	0.015	97	135538	5.00	5.51	
144 1,2,3-Trichlorobenzene	180	16.531	16.515	0.016	95	96470	5.00	4.53	
21 2,4-Dimethylpentane	1		0.000					ND	
15 Dimethyl disulfide	1		0.000					ND	
12 3-Ethylpentane	1		0.000					ND	
24 3-Methylhexane	1		0.000					ND	
19 2,3-Dimethylpentane	1		0.000					ND	
13 n-Nonyl Aldehyde	1		0.000					ND	
18 2,2-Dimethylpentane	1		0.000					ND	
23 2-Methylhexane	1		0.000					ND	
14 2-Butoxyethanol TIC	1		0.000					ND	
16 3,3-Dimethylpentane	1		0.000					ND	
17 2,2,3-Trimethylbutane	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
S 151 1,2-Dichloroethene, Total	96				0		10.0	9.39	
S 145 Trihalomethanes, Total	1				0		20.0	19.3	
S 146 Xylenes, Total (URS)	1				0		10.0	8.32	
S 147 Total BTEX	1				0			21.4	
S 148 1,3-Dichloropropene, Total	1				0		10.0	9.50	
S 149 1,2-Dichloroethene, Total	1				0		5.00	9.39	
S 150 Xylenes, Total	106				0		10.0	8.32	
S 160 TAH	1				0			0	
T 25 Dichloroacetonitrile TIC	74		0.000					ND	
T 26 2,3-dichloro-1-propene TIC	75	8.505	0.000	8.505	94	180709		11.8	
T 68 Propene oxide TIC	58		0.000					ND	
T 153 Propene TIC	1		0.000					ND	
T 155 4-Ethyltoluene TIC	1	13.728	0.000	13.728	91	413615		27.0	
T 154 Dicyclopentadiene TIC	1		0.000					ND	
T 156 1,3-Butadiene TIC	1	2.377	0.000	2.377	91	134250		8.75	
T 161 n-Nonane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

7 - Failed Limit of Detection

Reagents:

MV-Main B_00014	Amount Added:	2.50	Units: uL	
MV-Gas/Ket B_00026	Amount Added:	2.50	Units: uL	
MV-568718-D_00006	Amount Added:	1.00	Units: uL	Run Reagent
MV-ARCH SS A_00066	Amount Added:	0.72	Units: uL	Run Reagent

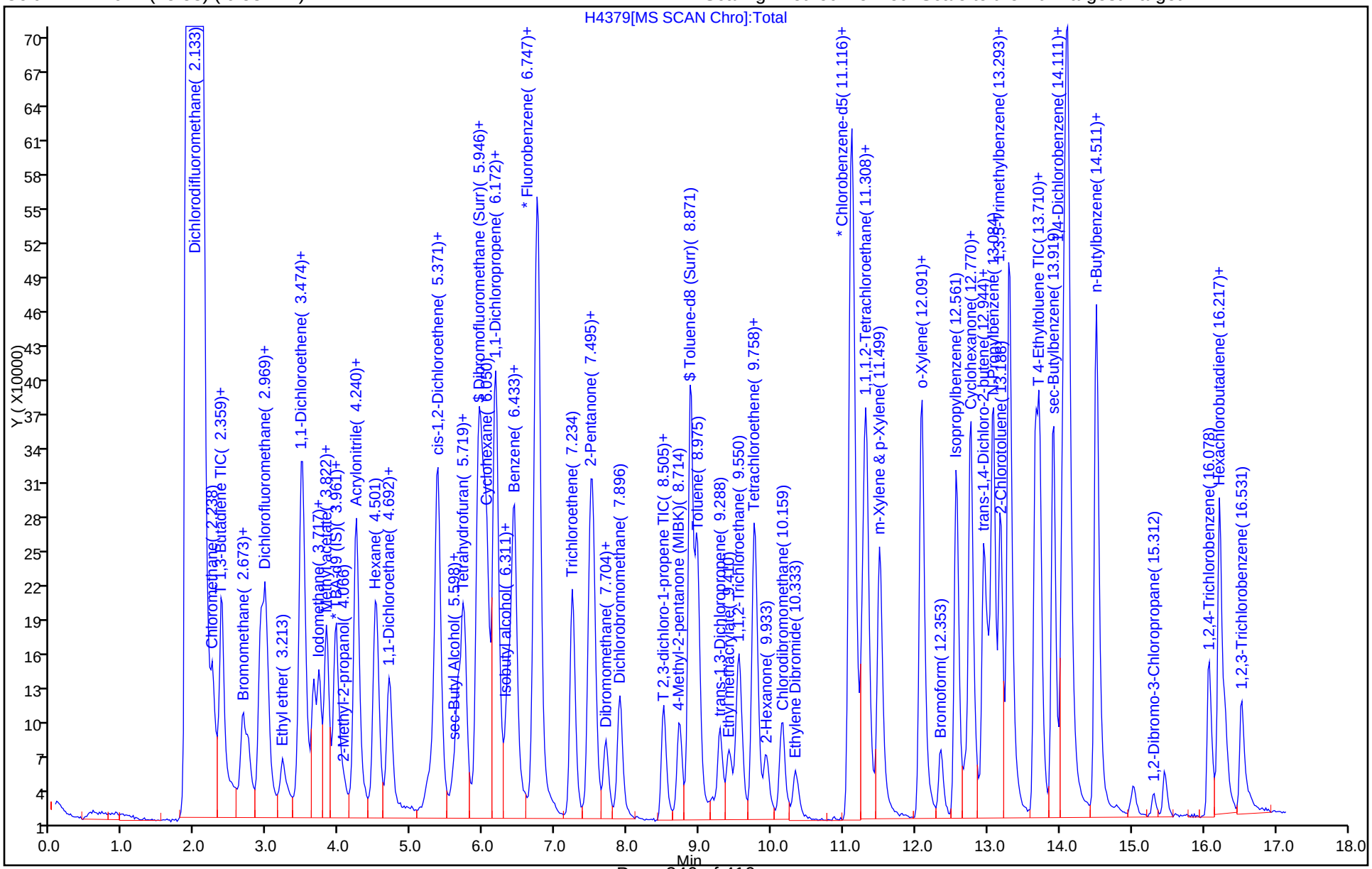
Report Date: 02-May-2016 05:30:41 Chrom Revision: 2.2 04-Mar-2016 14:36:24

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b\H4379.D

Injection Date:	01-May-2016 15:10:30	Instrument ID:	VMS_H	Operator ID:	wickhamt
Lims ID:	280-82226-A-1-A MSD			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



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_H Start Date: 04/18/2016 21:34

Analysis Batch Number: 321369 End Date: 04/19/2016 04:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-321369/1		04/18/2016 21:34	1	H3757.D	DB-624 (75.53) 0.53(mm)
IC 280-321369/10		04/18/2016 22:46	1	H3761.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/18/2016 22:46	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/11		04/18/2016 23:09	1	H3762.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/18/2016 23:09	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/12		04/18/2016 23:33	1	H3763.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/18/2016 23:33	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/13		04/18/2016 23:59	1	H3764.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/18/2016 23:59	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/14		04/19/2016 00:23	1	H3765.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 00:23	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/15		04/19/2016 00:46	1	H3766.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 00:46	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/16		04/19/2016 01:10	1	H3767.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 01:10	1		DB-624 (75.53) 0.53(mm)
ICV 280-321369/23		04/19/2016 01:57	1	H3769.D	DB-624 (75.53) 0.53(mm)
IC 280-321369/17		04/19/2016 02:20	1	H3770.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 02:20	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/18		04/19/2016 02:44	1	H3771.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 02:44	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/19		04/19/2016 03:07	1	H3772.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 03:07	1		DB-624 (75.53) 0.53(mm)
ICIS 280-321369/20		04/19/2016 03:31	1	H3773.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 03:31	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/21		04/19/2016 03:54	1	H3774.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 03:54	1		DB-624 (75.53) 0.53(mm)
IC 280-321369/22		04/19/2016 04:17	1	H3775.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		04/19/2016 04:17	1		DB-624 (75.53) 0.53(mm)
ICV 280-321369/24		04/19/2016 04:41	1	H3776.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_H Start Date: 04/20/2016 09:49

Analysis Batch Number: 321696 End Date: 04/20/2016 15:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-321696/1		04/20/2016 09:49	1	H3848.D	DB-624 (75.53) 0.53(mm)
STD01 280-321696/10 IC		04/20/2016 12:45	1	H3854.D	DB-624 (75.53) 0.53(mm)
STD02 280-321696/11 IC		04/20/2016 13:09	1	H3855.D	DB-624 (75.53) 0.53(mm)
STD05 280-321696/12 IC		04/20/2016 13:32	1	H3856.D	DB-624 (75.53) 0.53(mm)
STD10 280-321696/13 IC		04/20/2016 13:56	1	H3857.D	DB-624 (75.53) 0.53(mm)
STD30 280-321696/14 IC		04/20/2016 14:20	1	H3858.D	DB-624 (75.53) 0.53(mm)
STD60 280-321696/15 IC		04/20/2016 14:43	1	H3859.D	DB-624 (75.53) 0.53(mm)
ICV 280-321696/16		04/20/2016 15:31	1	H3861.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_H Start Date: 05/01/2016 06:41

Analysis Batch Number: 323371 End Date: 05/01/2016 18:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-323371/1		05/01/2016 06:41	1	H4358.D	DB-624 (75.53) 0.53(mm)
CCV 280-323371/2		05/01/2016 07:36	1	H4360.D	DB-624 (75.53) 0.53(mm)
CCV 280-323371/3		05/01/2016 08:00	1	H4361.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 08:51	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 09:15	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 09:39	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 10:03	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 10:27	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 11:14	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 11:38	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 12:02	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 12:25	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 12:49	1		DB-624 (75.53) 0.53(mm)
LCS 280-322152/2-A		05/01/2016 13:12	1	H4374.D	DB-624 (75.53) 0.53(mm)
LB 280-322152/1-A		05/01/2016 13:36	1	H4375.D	DB-624 (75.53) 0.53(mm)
280-82226-1		05/01/2016 14:23	1	H4377.D	DB-624 (75.53) 0.53(mm)
280-82226-1 MS		05/01/2016 14:47	1	H4378.D	DB-624 (75.53) 0.53(mm)
280-82226-1 MSD		05/01/2016 15:10	1	H4379.D	DB-624 (75.53) 0.53(mm)
280-82226-2		05/01/2016 15:34	1	H4380.D	DB-624 (75.53) 0.53(mm)
280-82226-3		05/01/2016 15:58	1	H4381.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 16:21	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 16:45	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 17:08	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 17:32	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		05/01/2016 17:55	1		DB-624 (75.53) 0.53(mm)
CCVC 280-323371/32		05/01/2016 18:19	1		DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 04/12/2016 09:04

Analysis Batch Number: 320302 End Date: 04/12/2016 15:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-320302/1		04/12/2016 09:04	1	G2_3362.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/10		04/12/2016 10:14	1	G2_3363.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/11		04/12/2016 10:33	1	G2_3364.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/12		04/12/2016 10:52	1	G2_3365.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/13		04/12/2016 11:12	1	G2_3366.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/14		04/12/2016 11:31	1	G2_3367.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/15		04/12/2016 11:50	1	G2_3368.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/16		04/12/2016 12:10	1	G2_3369.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/18		04/12/2016 12:48	1	G2_3361.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/19		04/12/2016 13:31	1	G2_3373.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/20		04/12/2016 13:51	1	G2_3374.D	DB-624 (60.25) 0.25(mm)
ICIS 280-320302/21		04/12/2016 14:10	1	G2_3375.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/22		04/12/2016 14:29	1	G2_3376.D	DB-624 (60.25) 0.25(mm)
IC 280-320302/23		04/12/2016 14:49	1	G2_3377.D	DB-624 (60.25) 0.25(mm)
ICV 280-320302/24		04/12/2016 15:08	1	G2_3378.D	DB-624 (60.25) 0.25(mm)
ICV 280-320302/17		04/12/2016 15:28	1	G2_3379.D	DB-624 (60.25) 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Instrument ID: VMS_G2 Start Date: 05/03/2016 10:14

Analysis Batch Number: 323599 End Date: 05/03/2016 21:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-323599/1		05/03/2016 10:14	1	G2_3975.D	DB-624 (60.25) 0.25(mm)
CCV 280-323599/2		05/03/2016 10:37	1	G2_3976.D	DB-624 (60.25) 0.25(mm)
CCV 280-323599/3		05/03/2016 10:56	1	G2_3977.D	DB-624 (60.25) 0.25(mm)
LCSD 280-323599/5		05/03/2016 11:35	1	G2_3979.D	DB-624 (60.25) 0.25(mm)
MB 280-323599/6		05/03/2016 11:55	1	G2_3980.D	DB-624 (60.25) 0.25(mm)
LCS 280-323599/4		05/03/2016 12:14	1	G2_3981.D	DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 12:37	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 12:56	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 13:16	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 13:41	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 14:01	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 14:20	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 14:40	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 14:59	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 15:18	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 15:37	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 15:56	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 16:16	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 16:35	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 16:54	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 17:13	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 17:33	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 17:52	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 18:11	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 18:30	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 18:49	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 19:09	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 19:28	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 19:47	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 20:06	1		DB-624 (60.25) 0.25(mm)
ZZZZZ		05/03/2016 20:25	1		DB-624 (60.25) 0.25(mm)
CCVC 280-323599/35		05/03/2016 20:45	1		DB-624 (60.25) 0.25(mm)
280-82226-4		05/03/2016 21:04	1	G2_4008.D	DB-624 (60.25) 0.25(mm)

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

GCMS Volatile CCV & Batch Data Review Checklist

LIMS Batch Number: 323371	Worklist #: 46258	Instrument ID: H 5-1-16AM
Analyst/1st Reviewer: TAW Date: 5-1-16		Analytical Method (circle): 624 (8260B) 8260 SIM Other____
QC Type (circle): (Standard) (DOD Q4) (DoD Q5)	QAPP_____	Other_____
Matrix (circle one): (Water) Solid		Circle: 5-mL (20-mL) Meth Ext 5 g

Review Items	NA	Yes	No	2nd Rev	Comments (List NCM #)
A. Tune & Continuing Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	Time of injection: 06:41
2. Was the correct ICAL used for quantitation? Date and instrument ID of ICAL verified? (Check in both Chrom/Target and TALS)		✓		✓	
3. Is ICAL locked in TALS and Chrom?		✓		✓	
4. Do RFs meet minimum criteria? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
5. Does %Difference/%Drift meet criteria? (624: cmpd specific-Table 5 Q value) (8260B: ≤20% for CCCs; ≤20% for all cmpds/surrogates if CCCs not on list); (DOD ± 20%)		✓		✓	(8260B: %D high, samples ND? List NCM) Q4/Q5 : TCLP cmpnds only
6. Are the Internal Standard area responses within method limits? (624 – not method defined) (8260B -- 50% - 200% of ICAL mid pt)		✓		✓	
7. Are the internal standard retention times within method limits? (624, ±30 sec of ICAL mid pt) (8260B, ±30 sec of ICAL mid pt)		✓		✓	
8. Isomeric pairs checked for elution order and correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required	✓			✓	

Comments: _____

2nd Reviewer: _____ Review Date: 5-1-16

main

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 321369	Worklist #: 45767	ICAL Event #: 25713	ICIS/ICV Line #s: 23	2nd Day ICV Line# N/A	Instrument ID: H
2nd Day Batch/ICV Lines: N/A					
Analyst/1st Reviewer: Date: 041816 OSelFat	Prep Method (circle): 5030 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
QC Type (circle): (Standard)	(DOD Q4)	(DoD Q5)	QAPP_____	Other_____	
Matrix (circle one): (Water) Solid			Circle: 5-mL (20-mL) Meth Ext 5 g		

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			NA	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			NA	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			NA	
13. Is the concentration intercept <|RL| for each cmpd? ("X" Intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required		✓		✓	Lvl 1, 3, 4, 7
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15.Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓			
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓			Acrolein -27.2%
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓			If No, immediate corrective action required
18. If any criteria from Items 1-17 were not met, was a NCM generated and supervisor copied?		✓			
19. Are all files and QC linked and processed correctly?		✓			☐ Files linked properly to calibration levels? ☐ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] ☐ Runs linked to BFB? [QC links] ☐ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓			
21. ICAL Date and Instrument ID verified?		✓			

Comments: _____

2nd Reviewer: _____ Review Date: 4/19/16

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 323609	Worklist #: 45767	ICAL Event #: 25714	ICIS/ICV Line #s: 20/24	2nd Day ICV Line# N/A	Instrument ID: H
2nd Day Batch/ICV Lines: N/A					
Analyst/1st Reviewer: SELF	Prep Method (circle): 5030 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
Date: 04/18/16					
QC Type (circle): Standard (DOD Q4) (DoD Q5)	QAPP_____		Other_____		
Matrix (circle one): (Water) Solid	Circle: 5-mL (20-mL) Meth Ext 5 g				

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			NA	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			NA	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			NA	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required		✓		✓	2-level
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15.Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓		✓	
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		✓	
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓		✓	If No, immediate corrective action required
18. If any criteria from items 1-17 were not met, was a NCM generated and supervisor copied?		✓		✓	
19. Are all files and QC linked and processed correctly?		✓		✓	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		✓	
21. ICAL Date and Instrument ID verified?		✓		✓	

Comments: Not Calibrated for Tetrahydrothiophene

2nd Reviewer: [signature] Review Date: 4/19/16

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 321696	Worklist #: 45844	ICAL Event #: 25745	ICIS/ICV Line #s: 16	2nd Day ICV Line#: ✓	Instrument ID: HOU20116GC
2nd Day Batch/ICV Lines:					
Analyst/1st Reviewer: RH Date: 4/20/16	Prep Method (circle): (5030) 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
QC Type (circle): Standard DOD Q4 (DoD Q5) QAPP_____ Other_____					
Matrix (circle one): (Water) Solid			Circle: 5-mL (20-mL) Meth Ext 5 g		

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)	✓	✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?	✓	✓		N/A	
9. If regression fit used, is r^2 ≥0.990?	✓	-		N/A	
10. At least 6 consecutive points used for quadratic curves?	✓	-		N/A	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓	✓		N/A	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓	✓		N/A	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required	✓	✓		N/A	
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15.Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)	✓			✓	
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		✓	
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓		✓	If No, immediate corrective action required
18. If any criteria from items 1-17 were not met, was a NCM generated and supervisor copied?		✓		✓	
19. Are all files and QC linked and processed correctly?		✓		✓	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		✓	
21. ICAL Date and Instrument ID verified?		✓		✓	

Comments: _____

2nd Reviewer: T Aw Review Date: 4-21-16

Sequence Name: C:\HPCHEM\1\SEQUENCE\050116AM.S
Comment:
Operator: wickhamt
Data Path: C:\HPCHEM\1\DATA\050116am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: H
HP-MS-0010 (8260/524) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 06:41-18:19
Lims Batch: 323371

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	H4358	BFB	BFB 06:41
2	Sample	1	H4359	8260	blank
3	Sample	2	H4360	8260	ccv m
4	Sample	3	H4361	8260	ccv s
5	Sample	4	H4362	8260	blank
6	Sample	5	H4363	8260	LCS 280-322635/2-A 2ml
7	Sample	6	H4364	8260	LB 280-322635/1-A 2ml
8	Sample	7	H4365	8260	280-82292-A-1-A 2ml
9	Sample	8	H4366	8260	280-82292-A-1-A ms 2ml SS↑, parent OK
10	Sample	9	H4367	8260	280-82292-A-1-A msd 2ml
11	Sample	10	H4368	8260	LCS 280-321959/2-A 2ml
12	Sample	11	H4369	8260	LB 280-321959/1-A 2ml
13	Sample	12	H4370	8260	280-82171-A-1-A 2ml
14	Sample	13	H4371	8260	280-82171-A-1-A ms 2ml
15	Sample	14	H4372	8260	280-82171-A-1-A msd 2ml
16	Sample	15	H4373	8260	lcs 280-321959/2-a 2ml
17	Sample	16	H4374	8260	LCS 280-322152/2-A 2ml
18	Sample	17	H4375	8260	LB 280-322152/1-A 2ml
19	Sample	18	H4376	8260	LCS 280-322152/2-A 2ml not needed, analyst error
20	Sample	19	H4377	8260	280-82226-A-1-A 2ml
21	Sample	20	H4378	8260	280-82226-A-1-A ms 2ml
22	Sample	21	H4379	8260	280-82226-A-1-A msd 2ml SS↑, parent ok
23	Sample	22	H4380	8260	280-82226-A-2-A 2ml
24	Sample	23	H4381	8260	280-82226-B-3-A 2ml
25	Sample	24	H4382	8260	720-71680-A-1-A 2ml
26	Sample	25	H4383	8260	720-71680-A-2-A 2ml
27	Sample	26	H4384	8260	720-71680-A-3-A 2ml
28	Sample	27	H4385	8260	280-82240-B-2-A 0.5ml
29	Sample	28	H4386	8260	280-82240-B-2-A 0.05ml
30	Sample	29	H4387	8260	ccvc 18:19
31	Sample	30	H4388	8260	primer

5-2-16 TAW

TestAmerica Laboratories
Worklist Report

Worklist Name: 050116am Worklist Number: 46258
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_H\20160501-46258.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00006 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00066 Amount Added: 0.720000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046258-001	# 1 BFB	MV-BFB_00020	BFB	voaWater	1.000000	uL	1.000000
280-0046258-002	# 2 CCV	MV-Main A_00026 MV-2cleve+AVA_00016 MV-568718-D_00006 MV-Gas/Ket A_00045	CCV	voaWater	20.00	mL	1.000000
280-0046258-003	# 3 CCV	MV-Supp A_00018	CCV	voaWater	20.00	mL	1.000000
280-0046258-004	# 4 LCS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	LCS	voaWater	20.00	mL	1.000000
280-0046258-005	# 5 LCSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	LCSD	voaWater	20.00	mL	1.000000
280-0046258-006	# 6 MB		MB	voaWater	20.00	mL	1.000000
280-0046258-007	# 7 280-62974-A-1		Client	voaWater	20.00	mL	1.000000
280-0046258-008	# 8 280-62974-A-2		Client	voaWater	20.00	mL	1.000000
280-0046258-009	# 9 280-62974-A-3		Client	voaWater	20.00	mL	1.000000
280-0046258-010	#10 LCS 280-322635/2-A	MV-Main B_00014 MV-Gas/Ket B_00026	LCS	voaWater	2.000000	mL	1.000000
280-0046258-011	#11 LB 280-322635/1-A		LB	voaWater	2.000000	mL	1.000000
280-0046258-012	#12 280-82292-A-1-A		Client	voaWater	2.000000	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046258-013	#13 280-82292-A-1-A MS	MV-Main B_00014 MV-Gas/Ket B_00026	MS	voaWater	2.000000	mL	1.000000
280-0046258-014	#14 280-82292-A-1-A MSD	MV-Main B_00014 MV-Gas/Ket B_00026	MSD	voaWater	2.000000	mL	1.000000
280-0046258-015	#15 LCS 280-321959/2-A	MV-Main B_00014 MV-Gas/Ket B_00026	LCS	voaWater	2.000000	mL	1.000000
280-0046258-016	#16 LB 280-321959/1-A		LB	voaWater	2.000000	mL	1.000000
280-0046258-017	#17 280-82171-A-1-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-018	#18 280-82171-A-1-A MS	MV-Main B_00014 MV-Gas/Ket B_00026	MS	voaWater	2.000000	mL	1.000000
280-0046258-019	#19 280-82171-A-1-A MSD	MV-Main B_00014 MV-Gas/Ket B_00026	MSD	voaWater	2.000000	mL	1.000000
280-0046258-020	#20 LCS 280-322152/2-A	MV-Main B_00014 MV-Gas/Ket B_00026	LCS	voaWater	2.000000	mL	1.000000
280-0046258-021	#21 LB 280-322152/1-A		LB	voaWater	2.000000	mL	1.000000
280-0046258-022	#22 280-82226-A-1-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-023	#23 280-82226-A-1-A MS	MV-Main B_00014 MV-Gas/Ket B_00026	MS	voaWater	2.000000	mL	1.000000
280-0046258-024	#24 280-82226-A-1-A MSD	MV-Main B_00014 MV-Gas/Ket B_00026	MSD	voaWater	2.000000	mL	1.000000
280-0046258-025	#25 280-82226-A-2-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-026	#26 280-82226-B-3-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-027	#27 720-71680-A-1-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-028	#28 720-71680-A-2-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-029	#29 720-71680-A-3-A		Client	voaWater	2.000000	mL	1.000000
280-0046258-030	#30 280-82240-B-2-A		Client	voaWater	0.500000	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046258-031	#31 280-82240-B-2-A		Client	voaWater	0.050000	mL	1.000000
280-0046258-032	#32 ccvc	MV-Main A_00026 MV-Gas/Ket A_00045	CCVC	voaWater	2.000000	mL	1.000000

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GCMS Volatile CCV & Batch Data Review Checklist

LIMS Batch Number: 323599	Worklist #: 46331	Instrument ID: G2
Analyst/1st Reviewer: MM Date: 5-3-16		Analytical Method (circle): 624 (8260B) 8260 SIM Other____
QC Type (circle): Standard DOD Q4 (DoD Q5) QAPP_____		Other_____
Matrix (circle one): (Water) Solid		Circle: 5-mL (20-mL) Meth Ext 5 g

Review Items	NA	Yes	No	2nd Rev	Comments (List NCM #)
A. Tune & Continuing Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		+		✓	Time of injection: 10:14
2. Was the correct ICAL used for quantitation? Date and instrument ID of ICAL verified? (Check in both Chrom/Target and TALS)		✓		✓	
3. Is ICAL locked in TALS and Chrom?		+		✓	
4. Do RFs meet minimum criteria? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
5. Does %Difference/%Drift meet criteria? (624: cmpd specific-Table 5 Q value) (8260B: ≤20% for CCCs; ≤20% for all cmpds/surrogates if CCCs not on list); (DOD ± 20%)		✓		✓	(8260B: %D high, samples ND? List NCM) trans-1,4-Dichloro-2-butene @ -31.6% NCM
6. Are the Internal Standard area responses within method limits? (624 – not method defined) (8260B -- 50% - 200% of ICAL mid pt)		+		✓	
7. Are the internal standard retention times within method limits? (624, ±30 sec of ICAL mid pt) (8260B, ±30 sec of ICAL mid pt)		+		✓	
8. Isomeric pairs checked for elution order and correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		+		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required	✓			✓	

Comments: _____

2nd Reviewer: _____ **Review Date:** 5/3/16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\050316.S
Comment:
Operator: moanm
Data Path: C:\MSDchem\1\data\050316\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g)
Tune Time: 10:14 - 21:04 (Circle)
323599
46321

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	G2_3964	BFB	bfb
2	Sample	99	G2_3965	BFB	bfb
3	Sample	98	G2_3966	BFB	bfb
4	Sample	97	G2_3967	BFB	bfb
5	Sample	10	G2_3968	8260B2	ccv
6	Sample	11	G2_3969	8260B2	ccv
7	Sample	12	G2_3970	8260B2	ccv
8	Sample	13	G2_3971	8260B2	ccv
9	Sample	14	G2_3972	8260B2	lcs
10	Sample	15	G2_3973	8260B2	lcsd
11	Sample	100	G2_3974	BFB	bfb tune adj
12	Sample	99	G2_3975	BFB	bfb
13	Sample	10	G2_3976	8260B2	ccv
14	Sample	11	G2_3977	8260B2	ccv
15	Sample	12	G2_3978	8260B2	lcs
16	Sample	13	G2_3979	8260B2	lcsd
17	Sample	14	G2_3980	8260B2	mb
18	Sample	15	G2_3981	8260B2	lcs rr
19	Sample	16	G2_3982	8260B2	280-82298-B-10 ph<2 0.5mL -E
20	Sample	17	G2_3983	8260B2	280-82298-B-10 ph<2 0.05mL -E, DNR
21	Sample	18	G2_3984	8260B2	280-82298-B-10 ph<2 0.01mL -D
22	Sample	19	G2_3985	8260B2	280-82364-I-10 ph<2
23	Sample	20	G2_3986	8260B2	280-82364-H-10 ph<2 MS
24	Sample	21	G2_3987	8260B2	280-82364-H-10 ph<2 MSD
25	Sample	22	G2_3988	8260B2	280-82364-A-13 ph<2
26	Sample	23	G2_3989	8260B2	280-82364-B-1 ph<2 -E,
27	Sample	24	G2_3990	8260B2	280-82364-B-1 ph<2 2mL -D
28	Sample	25	G2_3991	8260B2	280-82364-B-2 ph<2
29	Sample	26	G2_3992	8260B2	280-82364-B-3 ph<2 -E
30	Sample	27	G2_3993	8260B2	280-82364-B-3 ph<2 2mL -D
31	Sample	28	G2_3994	8260B2	280-82364-B-4 ph<2 10mL -E
32	Sample	29	G2_3995	8260B2	280-82364-B-4 ph<2 1mL -D
33	Sample	30	G2_3996	8260B2	280-82364-B-5 ph<2 10mL -E
34	Sample	31	G2_3997	8260B2	280-82364-B-5 ph<2 1mL -D
35	Sample	32	G2_3998	8260B2	280-82364-B-6 ph<2 -E
36	Sample	33	G2_3999	8260B2	280-82364-B-6 ph<2 2mL -D
37	Sample	34	G2_4000	8260B2	280-82364-A-7 ph<2 5mL -E
38	Sample	35	G2_4001	8260B2	280-82364-A-7 ph<2 0.5mL -D
39	Sample	36	G2_4002	8260B2	280-82364-B-8 ph<2
40	Sample	37	G2_4003	8260B2	280-82364-B-9 ph<2 -E
41	Sample	38	G2_4004	8260B2	280-82364-B-9 ph<2 5mL - SSC, E, DNT
42	Sample	39	G2_4005	8260B2	280-82364-A-11 ph<2
43	Sample	40	G2_4006	8260B2	280-82364-B-12 ph<2

5/4/16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\050316.S

Line	Type	Vial	DataFile	Method	Sample Name
44	Sample	41	G2_4007	8260B2	ccvc
45	Sample	42	G2_4008	8260B2	280-82226-A-4 ph<2
46	Sample	43	G2_4009	8260B2	pr
47	Sample	44	G2_4010	8260B2	pr

TestAmerica Laboratories
Worklist Report

Worklist Name: 050316 Worklist Number: 46321
Instrument Name: VMS_G2 Chrom Method: AQ_VMSG2_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_G2\20160503-46321.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_G2
Run Reagent: MV-567649-D_00001 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00067 Amount Added: 0.800000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046321-001	#1 BFB	MV-BFB_00020	BFB	voaWater	1.000000	uL	1.000000
280-0046321-002	#2 CCV	MV-567649-D_00001 MV-Main A_00026 MV-Gas/Ket A_00046 MV-SS 2-Cleve_00028	CCV	voaWater	20.00	mL	1.000000
280-0046321-003	#3 CCV	MV-Supp A_00018	CCV	voaWater	20.00	mL	1.000000
280-0046321-004	#4 LCS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	LCS	voaWater	20.00	mL	1.000000
280-0046321-005	#5 LCSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	LCSD	voaWater	20.00	mL	1.000000
280-0046321-006	#6 MB		MB	voaWater	20.00	mL	1.000000
280-0046321-007	#7 280-62974-A-1		Client	voaWater	20.00	mL	1.000000
280-0046321-008	#8 280-62974-A-2		Client	voaWater	20.00	mL	1.000000
280-0046321-009	#9 280-62974-A-3		Client	voaWater	20.00	mL	1.000000
280-0046321-010	#10 280-82298-B-10		Client	voaWater	0.500000	mL	1.000000
280-0046321-011	#11 280-82298-B-10		Client	voaWater	0.050000	mL	1.000000
280-0046321-012	#12 280-82298-B-10		Client	voaWater	0.010000	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046321-013	#13 280-82364-I-10		Client	voaWater	20.00	mL	1.000000
280-0046321-014	#14 280-82364-H-10 MS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	MS	voaWater	20.00	mL	1.000000
280-0046321-015	#15 280-82364-H-10 MSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00028	MSD	voaWater	20.00	mL	1.000000
280-0046321-016	#16 280-82364-A-13		Client	voaWater	20.00	mL	1.000000
280-0046321-017	#17 280-82364-B-1		Client	voaWater	20.00	mL	1.000000
280-0046321-018	#18 280-82364-B-1		Client	voaWater	2.000000	mL	1.000000
280-0046321-019	#19 280-82364-B-2		Client	voaWater	20.00	mL	1.000000
280-0046321-020	#20 280-82364-B-3		Client	voaWater	20.00	mL	1.000000
280-0046321-021	#21 280-82364-B-3		Client	voaWater	2.000000	mL	1.000000
280-0046321-022	#22 280-82364-B-4		Client	voaWater	10.00	mL	1.000000
280-0046321-023	#23 280-82364-B-4		Client	voaWater	1.000000	mL	1.000000
280-0046321-024	#24 280-82364-B-5		Client	voaWater	10.00	mL	1.000000
280-0046321-025	#25 280-82364-B-5		Client	voaWater	20.00	mL	1.000000
280-0046321-026	#26 280-82364-B-6		Client	voaWater	20.00	mL	1.000000
280-0046321-027	#27 280-82364-B-6		Client	voaWater	2.000000	mL	1.000000
280-0046321-028	#28 280-82364-A-7		Client	voaWater	5.000000	mL	1.000000
280-0046321-029	#29 280-82364-A-7		Client	voaWater	0.500000	mL	1.000000
280-0046321-030	#30 280-82364-B-8		Client	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0046321-031	#31 280-82364-B-9		Client	voaWater	20.00	mL	1.000000
280-0046321-032	#32 280-82364-B-9		Client	voaWater	5.000000	mL	1.000000
280-0046321-033	#33 280-82364-A-11		Client	voaWater	20.00	mL	1.000000
280-0046321-034	#34 280-82364-B-12		Client	voaWater	20.00	mL	1.000000
280-0046321-035	#35 ccvc	MV-Main A_00026 MV-Gas/Ket A_00046 MV-SS 2-Cleve_00028	CCVC	voaWater	20.00	mL	1.000000
280-0046321-036	#36 280-82226-A-4		Client	voaWater	20.00	mL	1.000000
280-0046321-037	#37 Samp 37		Client	voaWater	20.00	mL	1.000000

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MAIN/GTS/CLEV

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number:	Worklist #:	ICAL Event #:	ICIS/ICV Line #s:	Instrument ID:
320302	45515	25663	17	G2
Analyst/1st Reviewer: Date: DG 4/12/16	Prep Method (circle): ~~5030~~ 5035-L 5035-H		Analytical Method (circle): 624 ~~8260B~~ SIM Other_____	
QC Type (circle): ~~Standard~~	~~DOD Q4~~ ~~DoD Q5~~	QAPP_____	Other_____	
Matrix (circle one): ~~Water~~ Solid			Circle: 5-mL ~~20 mL~~ Meth Ext 5 g	

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓ ✓		✓	
9. If regression fit used, is r^2 ≥0.990?				✓	
10. At least 6 consecutive points used for quadratic curves?	✓			✓	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			✓	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			✓	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
14. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)		✓		✓	
15. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
16.Isomeric pairs checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓		+	
17. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		+	acrolein -35.05%b
18. If any criteria from items 1-18 were not met, was a NCM generated & approved by supervisor?	+	✓		+	
19. Are all files and QC linked and processed correctly?		✓		+	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		+	
21. ICAL Date and Instrument ID verified?		✓		+	

Comments: _____

4/13/16

2nd Reviewer: _____ **Review Date:** 4-13-16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\041216.S
Comment:
Operator: ilczyszynd
Data Path: C:\MSDchem\1\data\041216\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (~~8260~~B/624) (Circle)
Purge Volume: (~~25~~mL/5mL/5g)
Tune Time: 901 - 1508 (Circle)
Lims Batch: 320302

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	G2_3351	BFB	BFB
2	Sample	10	G2_3352	8260B2	ccv
3	Sample	11	G2_3353	8260B2	ccv
4	Sample	100	G2_3355	BFB	bfb
5	Sample	10	G2_3356	8260B2	ccv
6	Sample	11	G2_3357	8260B2	ccv
7	Sample	100	G2_3360	BFB	bfb
8	Sample	100	G2_3362	BFB	bfb
9	Sample	10	G2_3363	8260B2	ic
10	Sample	11	G2_3364	8260B2	ic
11	Sample	12	G2_3365	8260B2	ic
12	Sample	13	G2_3366	8260B2	ic
13	Sample	14	G2_3367	8260B2	ic
14	Sample	15	G2_3368	8260B2	ic
15	Sample	16	G2_3369	8260B2	ic
16	Sample	17	G2_3370	8260B2	icv
17	Sample	18	G2_3361	8260B2	ic
18	Sample	19	G2_3373	8260B2	ic
19	Sample	20	G2_3374	8260B2	ic
20	Sample	21	G2_3375	8260B2	ic
21	Sample	22	G2_3376	8260B2	ic
22	Sample	23	G2_3377	8260B2	ic
23	Sample	24	G2_3378	8260B2	icv
24	Sample	25	G2_3379	8260B2	icv m
25	Sample	26	G2_3380	8260B2	pr
26	Sample	27	G2_3381	8260B2	pr
27					

SVPP/SURR

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 320302	Worklist #: 45515	ICAL Event #: 25662	ICIS/ICV Line #s: 21, 24	Instrument ID: 62
Analyst/1st Reviewer: Date: DQ 4/12/16	Prep Method (circle): ~~5030~~ 5035-L 5035-H		Analytical Method (circle): 624 ~~8260B~~ SIM Other_____	
QC Type (circle): ~~Standard~~ ~~DOD Q4~~ ~~DoD Q5~~	QAPP_____		Other_____	
Matrix (circle one): ~~Water~~ Solid			Circle: 5-mL ~~20-mL~~ Meth Ext 5 g	

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			✓	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			✓	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			✓	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
14. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)		✓		✓	
15. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
16.Isomeric pairs checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)					
17. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____					ethanol - 21.48 acetonitrile - 22.61 tert-butyl ethyl ether - 21.25 n-butanol - 25.64
18. If any criteria from items 1-18 were not met, was a NCM generated & approved by supervisor?					
19. Are all files and QC linked and processed correctly?					□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?					
21. ICAL Date and Instrument ID verified?					

Comments: _____

4/13/16

2nd Reviewer: _____ **Review Date:** 4-13-16

Sequence Name: C:\MSDCHEM\1\SEQUENCE\041216.S
Comment:
Operator: ilczyszynd
Data Path: C:\MSDchem\1\data\041216\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: G2
DV-MS-0010 (8260B/624) (Circle)
Purge Volume: (25mL/5mL/5g)
Tune Time: 901 - 1508 (Circle)
Lims Batch: 320302

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	G2_3351	BFB	BFB
2	Sample	10	G2_3352	8260B2	ccv
3	Sample	11	G2_3353	8260B2	ccv
4	Sample	100	G2_3355	BFB	bfb
5	Sample	10	G2_3356	8260B2	ccv
6	Sample	11	G2_3357	8260B2	ccv
7	Sample	100	G2_3360	BFB	bfb
8	Sample	100	G2_3362	BFB	bfb
9	Sample	10	G2_3363	8260B2	ic
10	Sample	11	G2_3364	8260B2	ic
11	Sample	12	G2_3365	8260B2	ic
12	Sample	13	G2_3366	8260B2	ic
13	Sample	14	G2_3367	8260B2	ic
14	Sample	15	G2_3368	8260B2	ic
15	Sample	16	G2_3369	8260B2	ic
16	Sample	17	G2_3370	8260B2	icv
17	Sample	18	G2_3361	8260B2	ic
18	Sample	19	G2_3373	8260B2	ic
19	Sample	20	G2_3374	8260B2	ic
20	Sample	21	G2_3375	8260B2	ic
21	Sample	22	G2_3376	8260B2	ic
22	Sample	23	G2_3377	8260B2	ic
23	Sample	24	G2_3378	8260B2	icv
24	Sample	25	G2_3379	8260B2	icv m
25	Sample	26	G2_3380	8260B2	pr
26	Sample	27	G2_3381	8260B2	pr
27					

main

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 321369	Worklist #: 45767	ICAL Event #: 25713	ICIS/ICV Line #s: 23	2nd Day ICV Line# N/A	Instrument ID: H
2nd Day Batch/ICV Lines: N/A					
Analyst/1st Reviewer: OSelFat Date: 041816	Prep Method (circle): 5030 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
QC Type (circle): (Standard) (DOD Q4) (DoD Q5)	QAPP_____		Other_____		
Matrix (circle one): (Water) Solid	Circle: 5-mL (20-mL) Meth Ext 5 g				

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			NA	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			NA	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			NA	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required		✓		✓	Lvl 1, 3, 4, 7
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15.Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓			
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓			Acrolein -27.2%
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓			If No, immediate corrective action required
18. If any criteria from items 1-17 were not met, was a NCM generated and supervisor copied?		✓			
19. Are all files and QC linked and processed correctly?		✓			□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓			
21. ICAL Date and Instrument ID verified?		✓			

Comments: _____

2nd Reviewer: _____ Review Date: 4/19/16

Sequence Name: C:\HPCHEM\1\SEQUENCE\041816pm.S
Comment:
Operator: bergerb
Data Path: C:\HPCHEM\1\DATA\041816pm\
Pre-Seq Cmd:
Post-Seq Cmd:

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Instrument: H
OV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 21:34 - 0441
Lims Batch: 321369

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	68	H3755	8260	blank
2	Sample	70	H3756	8260	blank
3	Sample	100	H3757	BFB	BFB 21:34
4	Sample	1	H3759	8260	blank
5	Sample	2	H3760	8260	blank
6	Sample	3	H3761	8260	IC
7	Sample	4	H3762	8260	IC
8	Sample	5	H3763	8260	IC
9	Sample	6	H3764	8260	IC
10	Sample	7	H3765	8260	IC
11	Sample	8	H3766	8260	IC
12	Sample	9	H3767	8260	IC
13	Sample	10	H3768	8260	blank
14	Sample	11	H3769	8260	ICV
15	Sample	12	H3770	8260	IC
16	Sample	13	H3771	8260	IC
17	Sample	14	H3772	8260	IC
18	Sample	15	H3773	8260	ICIS
19	Sample	16	H3774	8260	IC
20	Sample	17	H3775	8260	IC
21	Sample	18	H3776	8260	ICV 0441
22	Sample	19	H3777	8260	mdlv1
23	Sample	20	H3778	8260	mdlv2
24	Sample	21	H3779	8260	mdlv3
25	Sample	22	H3780	8260	mdlv4
26	Sample	23	H3781	8260	mdlv5
27	Sample	24	H3782	8260	mdlv7
28	Sample	25	H3783	8260	mdlv8
29	Sample	26	H3784	8260	mdlv9

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Worklist Report

Worklist Name: 041816pm Worklist Number: 45767
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00006 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00066 Amount Added: 0.740000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045767-001	# 1 BFB	MV-BFB_00020	BFB		voaWater	1.000000	uL	1.000000
280-0045767-002	# 2 CCV	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	CCV		voaWater	20.00	mL	1.000000
280-0045767-003	# 3 CCV	MV-Supp A_00018	CCV		voaWater	20.00	mL	1.000000
280-0045767-004	# 4 LCS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCS		voaWater	20.00	mL	1.000000
280-0045767-005	# 5 LCSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCSD		voaWater	20.00	mL	1.000000
280-0045767-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0045767-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0045767-008	# 8 280-62974-A-2		Client		voaWater	20.00	mL	1.000000
280-0045767-009	# 9 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0045767-010	#10 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	1	voaWater	20.00	mL	1.000000
280-0045767-011	#11 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	2	voaWater	20.00	mL	1.000000
280-0045767-012	#12 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045767-013	#13 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	4	voaWater	20.00	mL	1.000000
280-0045767-014	#14 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	5	voaWater	20.00	mL	1.000000
280-0045767-015	#15 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	6	voaWater	20.00	mL	1.000000
280-0045767-016	#16 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	7	voaWater	20.00	mL	1.000000
280-0045767-017	#17 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	2	voaWater	20.00	mL	1.000000
280-0045767-018	#18 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	3	voaWater	20.00	mL	1.000000
280-0045767-019	#19 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	4	voaWater	20.00	mL	1.000000
280-0045767-020	#20 ICIS	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	ICIS	5	voaWater	20.00	mL	1.000000
280-0045767-021	#21 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	6	voaWater	20.00	mL	1.000000
280-0045767-022	#22 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	7	voaWater	20.00	mL	1.000000
280-0045767-023	#23 ICV	MV-568718-D_00006 MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	ICV		voaWater	20.00	mL	1.000000
280-0045767-024	#24 ICV	MV-568718-D_00006 MV-Supp B_00012 MV-ARCH SS A_00066	ICV		voaWater	20.00	mL	1.000000

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 321369	Worklist #: 45767	ICAL Event #: 25714	ICIS/ICV Line #s: 20/24	2nd Day ICV Line# N/A	Instrument ID: H
2nd Day Batch/ICV Lines: N/A					
Analyst/1st Reviewer: JSeifert Date: 041816	Prep Method (circle): 5030 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
QC Type (circle): (Standard) DOD Q4 DoD Q5		QAPP_____		Other_____	
Matrix (circle one): (Water) Solid			Circle: 5-mL (20-mL) Meth Ext 5 g		

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)		✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?		✓		✓	
9. If regression fit used, is r^2 ≥0.990?		✓		✓	
10. At least 6 consecutive points used for quadratic curves?	✓			NA	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓			NA	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓			NA	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required		✓		✓	2 level
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15. Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)		✓		✓	
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		✓	
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓		✓	**If No, immediate corrective action required**
18. If any criteria from items 1-17 were not met, was a NCM generated and supervisor copied?		✓		✓	
19. Are all files and QC linked and processed correctly?		✓		✓	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		✓	
21. ICAL Date and Instrument ID verified?		✓		✓	

Comments: Not Calibrated for Tetrahydrothiophene

2nd Reviewer: [signature] **Review Date:** 4/19/16

Sequence Name: C:\HPCHEM\1\SEQUENCE\041816pm.S
Comment:
Operator: bergerb
Data Path: C:\HPCHEM\1\DATA\041816pm\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: H
OV-MS-0010 (8260B/624) (Circle)
Purge Volume: (20mL/5mL/5g) (Circle)
Tune Time: 21:34 - 0441
Lims Batch: 321369

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	68	H3755	8260	blank
2	Sample	70	H3756	8260	blank
3	Sample	100	H3757	BFB	BFB 21:34
4	Sample	1	H3759	8260	blank
5	Sample	2	H3760	8260	blank
6	Sample	3	H3761	8260	IC
7	Sample	4	H3762	8260	IC
8	Sample	5	H3763	8260	IC
9	Sample	6	H3764	8260	IC
10	Sample	7	H3765	8260	IC
11	Sample	8	H3766	8260	IC
12	Sample	9	H3767	8260	IC
13	Sample	10	H3768	8260	blank
14	Sample	11	H3769	8260	ICV
15	Sample	12	H3770	8260	IC
16	Sample	13	H3771	8260	IC
17	Sample	14	H3772	8260	IC
18	Sample	15	H3773	8260	ICIS
19	Sample	16	H3774	8260	IC
20	Sample	17	H3775	8260	IC
21	Sample	18	H3776	8260	ICV 0441
22	Sample	19	H3777	8260	mdlv1
23	Sample	20	H3778	8260	mdlv2
24	Sample	21	H3779	8260	mdlv3
25	Sample	22	H3780	8260	mdlv4
26	Sample	23	H3781	8260	mdlv5
27	Sample	24	H3782	8260	mdlv7
28	Sample	25	H3783	8260	mdlv8
29	Sample	26	H3784	8260	mdlv9

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Worklist Report

Worklist Name: 041816pm Worklist Number: 45767
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00006 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00066 Amount Added: 0.740000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045767-001	# 1 BFB	MV-BFB_00020	BFB		voaWater	1.000000	uL	1.000000
280-0045767-002	# 2 CCV	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	CCV		voaWater	20.00	mL	1.000000
280-0045767-003	# 3 CCV	MV-Supp A_00018	CCV		voaWater	20.00	mL	1.000000
280-0045767-004	# 4 LCS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCS		voaWater	20.00	mL	1.000000
280-0045767-005	# 5 LCSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCSD		voaWater	20.00	mL	1.000000
280-0045767-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0045767-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0045767-008	# 8 280-62974-A-2		Client		voaWater	20.00	mL	1.000000
280-0045767-009	# 9 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0045767-010	#10 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	1	voaWater	20.00	mL	1.000000
280-0045767-011	#11 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	2	voaWater	20.00	mL	1.000000
280-0045767-012	#12 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	3	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045767-013	#13 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	4	voaWater	20.00	mL	1.000000
280-0045767-014	#14 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	5	voaWater	20.00	mL	1.000000
280-0045767-015	#15 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	6	voaWater	20.00	mL	1.000000
280-0045767-016	#16 IC	MV-568718-D_00006 MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	IC	7	voaWater	20.00	mL	1.000000
280-0045767-017	#17 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	2	voaWater	20.00	mL	1.000000
280-0045767-018	#18 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	3	voaWater	20.00	mL	1.000000
280-0045767-019	#19 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	4	voaWater	20.00	mL	1.000000
280-0045767-020	#20 ICIS	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	ICIS	5	voaWater	20.00	mL	1.000000
280-0045767-021	#21 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	6	voaWater	20.00	mL	1.000000
280-0045767-022	#22 IC	MV-568718-D_00006 MV-Supp A_00018 MV-ARCH SS A_00066	IC	7	voaWater	20.00	mL	1.000000
280-0045767-023	#23 ICV	MV-568718-D_00006 MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	ICV		voaWater	20.00	mL	1.000000
280-0045767-024	#24 ICV	MV-568718-D_00006 MV-Supp B_00012 MV-ARCH SS A_00066	ICV		voaWater	20.00	mL	1.000000

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GCMS Volatile ICAL Data Review Checklist

LIMS Batch Number: 321696	Worklist #: 45844	ICAL Event #: 25745	ICIS/ICV Line #s: 16	2nd Day ICV Line#: /	Instrument ID: HOU20 16GC
2nd Day Batch/ICV Lines: —					
Analyst/1st Reviewer: JJ Date: 4/20/16	Prep Method (circle): (5030) 5035-L 5035-H		Analytical Method (circle): 624 (8260B) SIM Other_____		
QC Type (circle): Standard DOD Q4 (DoD Q5) QAPP_____ Other_____					
Matrix (circle one): (Water) Solid			Circle: 5-mL (20-mL) Meth Ext 5 g		

Review Items	NA	Yes	No	2nd Rev	Comments
A. Tune / Calibration					
1. Did BFB meet tune criteria? If CFCs, did autotune meet SOP criteria?		✓		✓	
2. Were all standards injected within 12 hours of the BFB? (or 24 hours for 624?)		✓		✓	
3. Were ≥ 5 levels of each compound and surrogate analyzed? (624 has minimum of four standards)		✓		✓	
4. Was low level standard at or below RL?		✓		✓	
5. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)		✓		✓	(Other than those stated in SOP)
6. Do the average RFs meet minimum RF requirements? (624 – not method defined) (8260B-SPCCs = Chloromethane, 1,1-Dichloroethane, Bromoform ≥0.1; Chlorobenzene, 1,1,2,2-Tetrachloroethane ≥0.3)	✓	✓		✓	
7. Did the calibration %RSD meet method requirements? (624: ≤35% all cmpds) (8260B: ≤30% for CCCs & ≤15% for all other cmpds/surrogates)		✓		✓	
8. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?	✓	✓		N/A	
9. If regression fit used, is r^2 ≥0.990?	✓	-		N/A	
10. At least 6 consecutive points used for quadratic curves?	✓	-		N/A	
11. For quadratic – examine plot: Is a tangent's slope to the curve entirely positive or negative and continuous? (does not flatten or recurve within the range of calibration)	✓	✓		N/A	
12. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005);(recommended limits ±30% low point & ±20% all other points) (Chrom Report = Details of Calibration per Analyte)	✓	✓		N/A	
13. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)		✓		✓	
Were manual integrations performed correctly and properly documented?(dated, initialed and reason given) 2nd review of all MIs required	✓	✓		N/A	
14. Was the high point checked for detector saturation?		✓		✓	

Review Items	NA	Yes	No	2nd Rev	Comments
15.Isomeric pairs(checked for elution order/correct peak assignment? • Vinyl Acetate / Isopropyl Ether • 1,2- & 1,3-& 1,4-Dichlorobenzene • Ethylbenzene / m- & p-Xylenes • o-Xylene / Styrene • 1,3,5- & 1,2,4-Trimethylbenzene / Isopropylbenzene / sec-butylbenzene • 2-nitropropane between bromodichloromethane & MIBK • 2- & 4-Chlorotoluene / n-Propylbenzene • MIBK / 2-Hexanone • Methyl Methacrylate / Ethyl Methacrylate • 1,1-Dichloroethene / cis-1,2- & trans-1,2-Dichloroethene • 1,2,3- & 1,2,4-Trichlorobenzene • 1,1-Dichloropropene / cis-1,3- & trans-1,3-Dichloropropene / 1,2,3-Trichloropropane • Chlorobenzene-d5 / 1,1,1,2-Tetrachloroethane • Trichlorofluoromethane / Freon 113 • Hexane / Vinyl Acetate (Chrom: View/Documents/Methods/Isomers)	✓			✓	
16. Was the 2nd source initial calibration verification standard (ICV) within required criteria? (624 = QCS method defined/Table5) (8260B = SOP defined) (DoD = ±20%) QAPP specific_____		✓		✓	
17. Was the ICV Target report printed and elution order of all analytes verified? (attach at L1 Review)		✓		✓	**If No, immediate corrective action required**
18. If any criteria from items 1-17 were not met, was a NCM generated and supervisor copied?		✓		✓	
19. Are all files and QC linked and processed correctly?		✓		✓	□ Files linked properly to calibration levels? □ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] □ Runs linked to BFB? [QC links] □ Checklist & run log scanned, attached & assigned properly?
20. Is the ICAL locked in TALS and Chrom?		✓		✓	
21. ICAL Date and Instrument ID verified?		✓		✓	

Comments: _____

2nd Reviewer: Tam **Review Date:** 4-21-16

Sequence Name: C:\HPCHEM\1\SEQUENCE\042016am.S
Comment:
Operator: wickhamt
Data Path: C:\HPCHEM\1\DATA\042016am\
Pre-Seq Cmd:
Post-Seq Cmd:

Test America Denver
Instrument: H
DV-MS-001(8260B 624) (Circle)
Purge Volume: (20mL 5mL/5g) (Circle)
Tune Time: 949
Lims Batch: 321696

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	H3848	BFB	BFB		949
2	Sample	1	H3849	8260	ccv m		
3	Sample	2	H3850	8260	ccv s		
4	Sample	3	H3851	8260	lcs		949
5	Sample	4	H3852	8260	blank		
6	Sample	5	H3853	8260	mb af		
7	Sample	6	H3854	8260	std01		
8	Sample	7	H3855	8260	std02		4/20/16
9	Sample	8	H3856	8260	std05		
10	Sample	9	H3857	8260	std10		
11	Sample	10	H3858	8260	std30		
12	Sample	11	H3859	8260	std60		
13	Sample	12	H3860	8260	blank		
14	Sample	13	H3861	8260	icv		
15	Sample	14	H3862	8260	lcs		
16	Sample	15	H3863	8260	mb		
17	Sample	16	H3864	8260	280-81811-V-7	pH<2	
18	Sample	17	H3865	8260	280-81811-V-7	pH<2 MS	
19	Sample	18	H3866	8260	280-81811-V-7	pH<2 MSD	
20	Sample	19	H3867	8260	280-81811-E-1	pH<2	
21	Sample	20	H3868	8260	280-81811-E-2	pH<2	DNR
22	Sample	21	H3869	8260	280-81811-E-3	pH<2	
23	Sample	22	H3870	8260	280-81811-E-4	pH<2	
24	Sample	23	H3871	8260	280-81811-G-5	pH<2	
25	Sample	24	H3872	BFB	280-81811-V-7	pH<2 5ml	
26	Sample	25	H3873	8260	CCVC		

TestAmerica Laboratories
Worklist Report

Worklist Name: 042016am Worklist Number: 45844
Instrument Name: VMS_H Chrom Method: AQ_VMSH_8260
Purge Volume: 20.00 Units: mL
Analysis Type: VOA
Batch Directory: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b
Upload Directory: \\Corptalsapp06\280-DN-RawData\Organics\MS\VMS_H
Run Reagent: MV-568718-D_00006 Amount Added: 1.000000, Units: uL
Run Reagent: MV-ARCH SS A_00066 Amount Added: 0.720000, Units: uL

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045844-001	# 1 BFB	MV-BFB_00020	BFB		voaWater	1.000000	uL	1.000000
280-0045844-002	# 2 CCV	MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	CCV		voaWater	20.00	mL	1.000000
280-0045844-003	# 3 CCV	MV-Supp A_00018	CCV		voaWater	20.00	mL	1.000000
280-0045844-004	# 4 LCS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCS		voaWater	20.00	mL	1.000000
280-0045844-005	# 5 LCSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCSD		voaWater	20.00	mL	1.000000
280-0045844-006	# 6 MB		MB		voaWater	20.00	mL	1.000000
280-0045844-007	# 7 280-62974-A-1		Client		voaWater	20.00	mL	1.000000
280-0045844-008	# 8 280-62974-A-2		Client		voaWater	20.00	mL	1.000000
280-0045844-009	# 9 280-62974-A-3		Client		voaWater	20.00	mL	1.000000
280-0045844-010	#10 std01	MV-568718-D_00006 MV-ARCH SS A_00066	IC	2	voaWater	20.00	mL	1.000000
280-0045844-011	#11 std02	MV-568718-D_00006 MV-ARCH SS A_00066	IC	3	voaWater	20.00	mL	1.000000
280-0045844-012	#12 std05	MV-568718-D_00006 MV-ARCH SS A_00066	IC	4	voaWater	20.00	mL	1.000000
280-0045844-013	#13 std10	MV-568718-D_00006 MV-ARCH SS A_00066	IC	5	voaWater	20.00	mL	1.000000

Worklist ID	Lims ID	Sample Reagents	Smp Type	Cal Lvl	Fract	Initial Vol/Wt	Vol/Wt Units	Dil Fact
280-0045844-014	#14 std30	MV-568718-D_00006 MV-ARCH SS A_00066	IC	6	voaWater	20.00	mL	1.000000
280-0045844-015	#15 std60	MV-568718-D_00006 MV-ARCH SS A_00066	IC	7	voaWater	20.00	mL	1.000000
280-0045844-016	#16 icv	MV-568718-D_00006 MV-ARCH SS A_00066	ICV		voaWater	20.00	mL	1.000000
280-0045844-017	#17 lcs	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	LCS		voaWater	20.00	mL	1.000000
280-0045844-018	#18 mb		MB		voaWater	20.00	mL	1.000000
280-0045844-019	#19 280-81811-V-7		Client		voaWater	20.00	mL	1.000000
280-0045844-020	#20 280-81811-V-7 MS	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	MS		voaWater	20.00	mL	1.000000
280-0045844-021	#21 280-81811-V-7 MSD	MV-Main B_00014 MV-Gas/Ket B_00026 MV-SS 2-Cleve_00027	MSD		voaWater	20.00	mL	1.000000
280-0045844-022	#22 280-81811-E-1		Client		voaWater	20.00	mL	1.000000
280-0045844-023	#23 280-81811-E-2		Client		voaWater	20.00	mL	1.000000
280-0045844-024	#24 280-81811-E-3		Client		voaWater	20.00	mL	1.000000
280-0045844-025	#25 280-81811-E-4		Client		voaWater	20.00	mL	1.000000
280-0045844-026	#26 280-81811-G-5		Client		voaWater	20.00	mL	1.000000
280-0045844-027	#27 280-81811-V-7		Client		voaWater	20.00	mL	4.000000
280-0045844-032	#32 CCVC	MV-Main A_00026 MV-Gas/Ket A_00045 MV-2cleve+AVA_00015	CCVC		voaWater	20.00	mL	1.000000

TestAmerica Laboratories
Calibration History Report

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m
Instrument: VMS_H Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Compound Type
Integrator: RTE Last Modified: 20-Apr-2016 21:55:25
No.Compounds:152

Sublist: chrom-AQ_VMSH_8260*sub53
Start Cal Date: 27-Oct-2015 08:39:30 End Cal Date: 27-Oct-2015 10:59:30
No. Cpnds: 6 No. Calibrators: 7 Last ICal Level: 7

Injection Date	Calib Type	Calib Level	IS Check	RT Calib	Ratio Calib	Calib Level Identification
27-Oct-2015 08:39:30	IC	1	No	No	No	ic4077910
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8879.D						
27-Oct-2015 09:02:30	IC	2	No	No	No	ic4077911
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8880.D						
27-Oct-2015 09:25:30	IC	3	No	No	No	ic4077912
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8881.D						
27-Oct-2015 09:49:30	IC	4	No	No	No	ic4077913
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8882.D						
27-Oct-2015 10:12:30	IC	5	No	Yes	Yes	ic4077914
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8883.D						
27-Oct-2015 10:35:30	IC	6	No	No	No	ic4077915
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8884.D						
27-Oct-2015 10:59:30	IC	7	No	No	No	ic4077916
Smp Info: ic \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b\H8885.D						

Sublist: chrom-AQ_VMSH_8260*sub52
Start Cal Date: 18-Apr-2016 22:46:30 End Cal Date: 19-Apr-2016 01:10:30
No. Cpnds: 103 No. Calibrators: 7 Last ICal Level: 7

Injection Date	Calib Type	Calib Level	IS Check	RT Calib	Ratio Calib	Calib Level Identification
18-Apr-2016 22:46:30	IC	1	No	No	No	IC4576710
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3761.D						
18-Apr-2016 23:09:30	IC	2	No	No	No	IC4576711
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3762.D						
18-Apr-2016 23:33:30	IC	3	No	No	No	IC4576712
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3763.D						
18-Apr-2016 23:59:30	IC	4	No	No	No	IC4576713
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3764.D						
19-Apr-2016 00:23:30	IC	5	No	Yes	Yes	IC4576714
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3765.D						
19-Apr-2016 00:46:30	IC	6	No	No	No	IC4576715
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3766.D						
19-Apr-2016 01:10:30	IC	7	No	No	No	IC4576716
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3767.D						

Sublist: chrom-AQ_VMSH_8260*sub86
Start Cal Date: 19-Apr-2016 02:20:30 End Cal Date: 19-Apr-2016 04:17:30
No. Cpnds: 28 No. Calibrators: 6 Last ICal Level: 7

Injection Date	Calib Type	Calib Level	IS Check	RT Calib	Ratio Calib	Calib Level Identification
19-Apr-2016 02:20:30	IC	2	No	No	No	IC4576717
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3770.D						
19-Apr-2016 02:44:30	IC	3	No	No	No	IC4576718
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3771.D						
19-Apr-2016 03:07:30	IC	4	No	No	No	IC4576719
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3772.D						
19-Apr-2016 03:31:30	ICIS	5	Yes	Yes	Yes	ICIS4576720
Smp Info: ICIS \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3773.D						
19-Apr-2016 03:54:30	IC	6	No	No	No	IC4576721
Smp Info: IC \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3774.D						

Injection Date	Calib Type	Calib Level	IS Check	RT Calib	Ratio Calib	Calib Level Identification
19-Apr-2016 04:17:30	IC	7	No	No	No	IC4576722
Smp Info: IC						
\\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b\H3775.D						

Sublist: chrom-AQ_VMSH_8260*sub64
Start Cal Date: 20-Apr-2016 12:45:30 End Cal Date: 20-Apr-2016 14:43:30
No. Cpnds: 8 No. Calibrators: 6 Last ICal Level: 7

Injection Date	Calib Type	Calib Level	IS Check	RT Calib	Ratio Calib	Calib Level Identification
20-Apr-2016 12:45:30	IC	2	No	No	No	std014584410
Smp Info: std01						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3854.D						
20-Apr-2016 13:09:30	IC	3	No	No	No	std024584411
Smp Info: std02						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3855.D						
20-Apr-2016 13:32:30	IC	4	No	No	No	std054584412
Smp Info: std05						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3856.D						
20-Apr-2016 13:56:30	IC	5	No	Yes	Yes	std104584413
Smp Info: std10						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3857.D						
20-Apr-2016 14:20:30	IC	6	No	No	No	std304584414
Smp Info: std30						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3858.D						
20-Apr-2016 14:43:30	IC	7	No	No	No	std604584415
Smp Info: std60						
\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3859.D						

Report Date: 20-Apr-2016 21:53:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

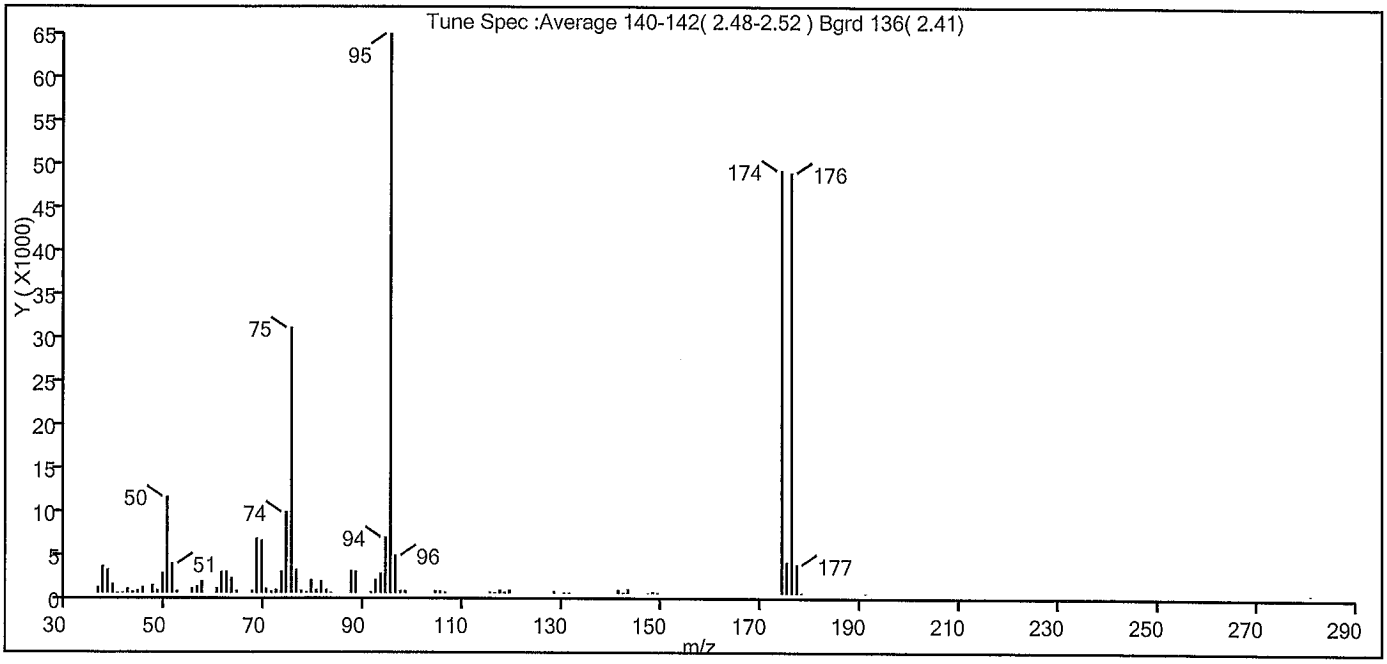
Preliminary Report

MS Tune Report

TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3848.D				
Injection Date:	20-Apr-2016 09:49:30	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	100.0
50	15 to 40% of m/z 95	17.2
75	30 to 60% of m/z 95	47.4
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	75.6
175	5 to 9% of m/z 174	5.6 (7.4)
176	Greater than 95% but less than 101% of m/z 174	75.2 (99.4)
177	5 to 9% of m/z 176	5.2 (6.9)

TestAmerica Laboratories
Initial Calibration Evaluation Report

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m

Instrument:	VMS_H	Lims Location:	280
Lock State:	Initial Calib Locked	Cpnd Order:	Compound Type
Integrator:	RTE	Last Modified:	20-Apr-2016 21:55:25
No.Compounds:	152		

Limit Group: MSV - 8260B Water and Solid

Initial Calibration Evaluation Successful, No Defects

TestAmerica Laboratories
Initial Calibration RRF Report

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m
Instrument: VMS_H Lims Location: 280
Lock State: Unlocked Cpnd Order: Compound Type
Integrator: RTE Last Modified: 20-Apr-2016 21:53:18
No.Compounds:152

Initial Calibration Batches

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b
Inj Date : 27-Oct-2015 08:39:30, Sublist: chrom-AQ_VMSH_8260*sub53

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b
Inj Date : 18-Apr-2016 22:46:30, Sublist: chrom-AQ_VMSH_8260*sub52

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b
Inj Date : 20-Apr-2016 12:45:30, Sublist: chrom-AQ_VMSH_8260*sub64

Limit Group: MSV - 8260B Water and Solid

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	b	M1	M2	%RSD/R^2
1 TBA-d9 (IS)	173094	150126	157670	162362	146783	152540	164559				
2 Fluorobenzene	1267022	1252418	1227924	1266309	1173248	1235200	1258597				
3 1,4-Dioxane-d8											
* 4 Chlorobenzene-d5	311652	309195	311336	314825	292387	311542	318857				
* 5 1,4-Dichlorobenzene-d4	476370	455158	459678	468131	437049	466684	477037				
$ 8 Dibromofluoromethane (		0.6305923	0.6017773	0.6340683	0.6151076	0.5837650	0.6210042		0.6143858		Avg 3.1
$ 9 1,2-Dichloroethane-d4		0.2451244	0.2476451	0.2442385	0.2390591	0.2292477	0.2384899		0.2406341		Avg 2.8
$ 10 Toluene-d8 (Surr)		5.7941990	5.5808537	5.7014879	5.5919649	5.2875128	5.7432496		5.6165446		Avg 3.2
$ 11 4-Bromofluorobenzene (		1.9455309	1.8661543	1.8370801	1.7700015	1.6784516	1.8088321		1.8176751		Avg 5.0
28 Dichlorodifluoromethan	0.5803739	0.5114130	0.4620881	0.6133477	0.6310847	0.6415434	0.6263669		0.5808883		Avg 11.8
30 Chloromethane	0.3037359	0.2437923	0.2583027	0.2673039	0.2748110	0.2745538	0.2697470		0.2703209		Avg 6.8
32 Vinyl chloride	0.3464505	0.3096567	0.2913663	0.3286470	0.3372939	0.3390301	0.3419892		0.3277762		Avg 6.1
34 Ethylene oxide		0.0032294	0.0031717	0.0031684	0.0031310	0.0030093	0.0029433		0.0031088		Avg 3.5
35 Bromomethane	0.4018978	0.3144192	0.2928116	0.3264212	0.3305803	0.3231195	0.2980519		0.3267573		Avg 11.0
36 Chloroethane	0.2057373	0.2159141	0.2092532	0.2108526	0.2160704	0.2121307	0.2024906		0.2103498		Avg 2.4
37 Dichlorofluoromethane	0.9704639	0.8664588	0.8396222	0.8673215	0.8795759	0.8842007	0.9142868		0.8888471		Avg 4.8
38 Trichlorofluoromethane	0.9497868	0.8776846	0.8448732	0.9188379	0.9508423	0.9592061	0.9960696		0.9281858		Avg 5.6
39 Ethanol			0.0009709	0.0008653	0.0007683	0.0006653	0.0005999	0.0489308	0.0006076		Linr 0.995
40 Ethyl ether	0.1301570	0.1253303	0.1293240	0.1405233	0.1295065	0.1277987	0.1380948		0.1315335		Avg 4.2
43 Propene oxide		0.0144690	0.0145938	0.0153413	0.0152929	0.0146706	0.0146959		0.0148439		Avg 2.5
44 Acrolein		0.0091700	0.0086743	0.0081095	0.0069627	0.0067075	0.0073891		0.0078355		Avg 12.5
45 1,1-Dichloroethene	0.4937477	0.4428110	0.4164911	0.4802068	0.4655228	0.4520526	0.4600979		0.4587043		Avg 5.5
46 1,1,2-Trichloro-1,2,2-	0.7457364	0.7103670	0.6894388	0.7904903	0.7649385	0.7485065	0.7546884		0.7434522		Avg 4.5

TestAmerica Laboratories
Initial Calibration %Drift Report

Method: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\AQ_VMSH_8260.m
Instrument: VMS_H
Lock State: Initial Calib Locked
Integrator: RTE
No.Compounds:152
Lims Location: 280
Cpnd Order: Compound Type
Last Modified: 20-Apr-2016 21:55:25

Initial Calibration Batches

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20151027-40779.b
Inj Date : 27-Oct-2015 08:39:30, Sublist: chrom-AQ_VMSH_8260*sub53

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20160418-45767.b
Inj Date : 18-Apr-2016 22:46:30, Sublist: chrom-AQ_VMSH_8260*sub52

Ical Batch: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b
Inj Date : 20-Apr-2016 12:45:30, Sublist: chrom-AQ_VMSH_8260*sub64

Limit Group: MSV - 8260B Water and Solid

Detector 1: MS SCAN

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
* 1 TBA-d9 (IS)	173094	150126	157670	162362	146783	152540	164559
* 2 Fluorobenzene	1267022	1252418	1227924	1266309	1173248	1235200	1258597
* 3 1,4-Dioxane-d8							
* 4 Chlorobenzene-d5	311652	309195	311336	314825	292387	311542	318857
* 5 1,4-Dichlorobenzene-d4	476370	455158	459678	468131	437049	466684	477037
$ 8 Dibromofluoromethane (		2.6	-2.1	3.2	0.1	-5.0	1.1
$ 9 1,2-Dichloroethane-d4		1.9	2.9	1.5	-0.7	-4.7	-0.9
$ 10 Toluene-d8 (Surr)		3.2	-0.6	1.5	-0.4	-5.9	2.3
$ 11 4-Bromofluorobenzene (		7.0	2.7	1.1	-2.6	-7.7	-0.5
28 Dichlorodifluoromethan	-0.1	-12.0	-20.5	5.6	8.6	10.4	7.8
30 Chloromethane	12.4	-9.8	-4.4	-1.1	1.7	1.6	-0.2
32 Vinyl chloride	5.7	-5.5	-11.1	0.3	2.9	3.4	4.3
34 Ethylene oxide		3.9	2.0	1.9	0.7	-3.2	-5.3
35 Bromomethane	23.0	-3.8	-10.4	-0.1	1.2	-1.1	-8.8
36 Chloroethane	-2.2	2.6	-0.5	0.2	2.7	0.8	-3.7
37 Dichlorofluoromethane	9.2	-2.5	-5.5	-2.4	-1.0	-0.5	2.9
38 Trichlorofluoromethane	2.3	-5.4	-9.0	-1.0	2.4	3.3	7.3
39 Ethanol			-20.7	10.2	10.3	4.1	-4.0
40 Ethyl ether	-1.0	-4.7	-1.7	6.8	-1.5	-2.8	5.0
43 Propene oxide		-2.5	-1.7	3.4	3.0	-1.2	-1.0
44 Acrolein		17.0	10.7	3.5	-11.1	-14.4	-5.7
45 1,1-Dichloroethene	7.6	-3.5	-9.2	4.7	1.5	-1.5	0.3
46 1,1,2-Trichloro-1,2,2-	0.3	-4.5	-7.3	6.3	2.9	0.7	1.5
47 Acetone			0.0	4.2	-6.3	-6.1	8.2
49 Isopropyl alcohol		3.2	-9.4	5.4	7.1	-8.1	1.9
48 Iodomethane	23.8	-2.8	-7.5	-1.1	-5.0	-4.6	-2.8
50 Carbon disulfide	9.1	-4.6	-8.8	3.3	0.5	-0.8	1.4
51 Acetonitrile		13.5	-7.8	-9.9	10.4	-2.7	-3.6
52 3-Chloro-1-propene	22.8	-0.5	-12.5	-0.6	-4.4	-5.4	0.5
53 Methyl acetate	-1.8	-1.8	-9.5	6.6	-5.4	1.1	10.9
54 Methylene Chloride		1.7	-4.7	3.9	-1.3	-1.8	2.1
55 2-Methyl-2-propanol		3.4	0.0	3.2	1.8	-2.2	-6.3
57 Acrylonitrile	0.5	-2.1	-6.4	2.6	-3.5	-1.4	10.2
56 Methyl tert-butyl ethe	6.5	-1.0	-5.3	4.5	-4.3	-4.9	4.5
58 trans-1,2-Dichloroethe	-2.8	-2.3	-3.9	4.7	-0.2	1.0	3.5
59 Hexane	2.4	-3.2	-10.6	6.1	1.0	2.3	2.0
60 1,1-Dichloroethane	10.9	0.5	-3.9	-0.4	-4.8	-2.8	0.6
61 Vinyl acetate	5.3	-11.4	-6.9	6.0	-3.8	0.5	10.1

TestAmerica Laboratories
ICV, ICal Verification Report

Data Path: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b\H3861.D
Worklist Name: 042016am Worklist Num: 45844
Instrument: VMS_H Method: AQ_VMSH_8260
Limit Group: MSV - 8260B Water and Solid
Analysis Type: VOA
Inj Volume: 20.00 Inj Vol Units: mL

Detector 1: MS SCAN

Compound	Amount Added	Amount Recovered	%Drift
$ 8 Dibromofluoromethane (Surr)	10.0	9.88	-1.23
$ 9 1,2-Dichloroethane-d4 (Surr)	10.0	9.78	-2.24
$ 10 Toluene-d8 (Surr)	10.0	9.50	-4.96
$ 11 4-Bromofluorobenzene (Surr)	10.0	9.14	-8.56

TestAmerica Laboratories
Istd/Surrogate Recovery Report

Worklist Name: 042016am Worklist Num: 45844
Instrument: VMS_H Method: AQ_VMSH_8260
Batch Directory: \\ChromNA\Denver\ChromData\VMS_H\20160420-45844.b
Limit Group: MSV - 8260B Water and Solid
Analysis Type: VOA
Inj Volume: 20.00 Inj Vol Units: mL

Lims Batch: 321696
CCV IS Mode: Select Ical Level, Cal Level: 3
Non-Cal IS Mode: Last Ccal Sample

Tune Sample: # 1 BFB, File Name: H3848.D, Inj Date: 20-Apr-2016 09:49:30
Tune Clock: 12

$ 8 Dibromofluoromethane (Surr)
$ 9 1,2-Dichloroethane-d4 (Surr)
$ 10 Toluene-d8 (Surr)
$ 11 4-Bromofluorobenzene (Surr)

Lab ID Inj Date	$ 8	$ 9	$ 10	$ 11	* 1 TBA-d9 (IS)	* 2 Fluorobenzen	* 4 Chlorobenzen	* 5 1,4-Dichloro
IS Std					97321 3.97	898700 6.75	210809 11.09	338339 14.10
# 2 CCV 20-Apr-2016 10:17:30	5.94 93.95	6.38 104.30	8.90 99.24	12.79 87.93	3.99 120582 123.9	6.78 847348 94.3	11.13 198995 94.4	14.13 334697 98.9
# 3 CCV 20-Apr-2016 10:41:30	5.93 95.99	6.37 96.50	8.89 93.75	12.77 90.07	3.98 113240 116.4	6.77 919234 102.3	11.12 232031 110.1	14.12 356444 105.4
# 4 LCS 20-Apr-2016 11:05:30	5.93 90.74	6.35 94.75	8.88 104.10	12.78 86.70	3.98 105053 107.9	6.77 911954 101.5	11.11 211144 100.2	14.12 358827 106.1
# 6 MB 20-Apr-2016 12:22:30					4.00 125074 128.5	6.78 956455 106.4	11.12 240584 114.1	14.11 361589 106.9
IS Std								
#10 std01 20-Apr-2016 12:45:30	5.93 102.60	6.35 101.90	8.87 103.20	12.77 107.00	4.00 98244> 100.0*	6.77 930752> 100.0*	11.10 230062> 100.0*	14.11 354614> 100.0*
#11 std02 20-Apr-2016 13:09:30	5.93 97.95	6.36 102.90	8.89 99.36	12.77 102.70	4.00 97638> 99.4*	6.76 904394> 97.2*	11.12 227921> 99.1*	14.11 345155> 97.3*
#12 std05 20-Apr-2016 13:32:30	5.93 103.20	6.35 101.50	8.89 101.50	12.77 101.10	3.98 115375> 117.4*	6.77 922377> 99.1*	11.12 225820> 98.2*	14.11 348564> 98.3*
#13 std10 20-Apr-2016 13:56:30	5.94 100.10	6.36 99.35	8.89 99.56	12.77 97.38	4.00 107354> 109.3*	6.78 931778> 100.1*	11.12 232934> 101.2*	14.11 358374> 101.1*
#14 std30 20-Apr-2016 14:20:30	5.93 95.02	6.34 95.27	8.89 94.14	12.77 92.34	3.99 97596> 99.3*	6.76 867942> 93.3*	11.11 217015> 94.3*	14.11 330294> 93.1*
#15 std60 20-Apr-2016 14:43:30	5.93 101.10	6.35 99.11	8.89 102.30	12.77 99.51	3.98 102552> 104.4*	6.77 937448> 100.7*	11.12 229703> 99.8*	14.11 352125> 99.3*
IS Std					97321 3.97	898700 6.75	210809 11.09	338339 14.10
#16 lcv 20-Apr-2016 15:31:30	5.93 98.77	6.36 97.76	8.89 95.04	12.77 91.44	4.00 101721 104.5	6.76 962862 107.1	11.12 239757 113.7	14.11 361971 107.0
#17 lcs 20-Apr-2016 17:29:30	5.96 88.01	6.38 86.91	8.90 101.20	12.79 90.22	3.99 85878 88.2	6.78 771436 85.8	11.13 172379 81.8	14.13 267844 79.2
#18 mb 20-Apr-2016 17:53:30	5.93 95.46	6.36 95.89	8.89 99.54	12.77 95.92	3.98 92105 94.6	6.76 807100 89.8	11.12 194428 92.2	14.11 294340 87.0
#19 280-81811-V-7 20-Apr-2016 18:25:30	5.95 90.98	6.36 82.94	8.89 98.93	12.77 95.35	4.00 68564 70.5	6.78 830035 92.4	11.12 199672 94.7	14.11 282601 83.5
#20 280-81811-V-7 MS 20-Apr-2016 18:49:30	5.93 89.72	6.35 89.70	8.87 102.40	12.77 87.89	3.98 95026 97.6	6.76 897405 99.9	11.10 209448 99.4	14.11 346634 102.5
#21 280-81811-V-7 MSD 20-Apr-2016 19:13:30	5.93 92.69	6.35 94.83	8.89 101.20	12.77 87.17	3.98 97908 100.6	6.76 864416 96.2	11.10 202510 96.1	14.11 339006 100.2
#22 280-81811-E-1 20-Apr-2016 19:36:30	5.93 94.19	6.35 89.51	8.89 94.33	12.77 93.10	3.99 99919 102.7	6.76 911952 101.5	11.12 231398 109.8	14.11 341581 101.0
#23 280-81811-E-2 20-Apr-2016 20:00:30	5.93 96.07	6.35 98.39	8.87 97.09	12.75 94.42	4.00 91470 94.0	6.76 889892 99.0	11.10 221035 104.9	14.11 333356 98.5
#24 280-81811-E-3 20-Apr-2016 20:24:30	5.93 95.73	6.35 92.51	8.87 95.33	12.77 93.29	3.98 112673 115.8	6.77 955266 106.3	11.10 237361 112.6	14.11 361975 107.0
#25 280-81811-E-4 20-Apr-2016 20:48:30	5.93 94.41	6.35 93.35	8.88 92.01	12.78 94.66	3.98 105510 108.4	6.77 846853 94.2	11.10 229053 108.7	14.12 341409 100.9

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG No.:

Batch Number: 322152 Batch Start Date: 04/22/16 16:33 Batch Analyst: Bourgery, David F

Batch Method: 1311 Batch End Date: 04/23/16 09:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	ExtractFluid					
LB 280-322152/1		1311, 8260B		t1					
LCS 280-322152/2		1311, 8260B		t1					
280-82226-A-1	774776CARBON041916	1311, 8260B	P	t1					
280-82226-A-2	785786CARBON041916	1311, 8260B	P	t1					
280-82226-B-3	B101CARBON041916	1311, 8260B	P	t1					

Batch Notes	
First End time	4.23.16 940
First Start time	04/22/16 16:33

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: 280-82226-1

SDG No.:

Project: Griffiss AFB 1015-11-01 SVI

Client Sample ID	Lab Sample ID
B101CARBON041916	280-82226-3

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: B101CARBON041916 Lab Sample ID: 280-82226-3

Lab Name: TestAmerica Denver Job No.: 280-82226-1

SDG ID.:

Matrix: Solid Date Sampled: 04/19/2016 14:30

Reporting Basis: WET Date Received: 04/20/2016 09:15

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: 280-82226-1

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.: 280-82226-1

SDG No.:

Instrument ID: NOEQUIP Method: 7.1.2

Start Date: 04/21/2016 20:11 End Date: 04/21/2016 20:11

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ign																				
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
280-82226-3	1	T	20:11	X																				
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					
ZZZZZZ			20:11																					

Prep Types
T = Total/NA

Wet Chemistry Data Review Checklist Direct Measurement Methods (pH, Conductance, etc.)

Method(s): 7.1, 2.1 / IGNITE	Instrument: N/A	SOP #: DV-WC-0063	Analyst: MWOOLLEY
Rn Date: 4/21/16	Prep Batch(s): N/A	Analytical Batch: 322014	

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
Was the instrument properly standardized?	X 4/21/16			
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 dilution factors, 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 (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 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:	Date: 4/21/16	Analyst Comments:
2nd Level Reviewer:	Date: 4/22/16	Reviewer Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

Ignitability of Solids for Waste Characterization Per 40 CFR 261.21

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
580-58556-1			✓		✓												✓
580-58556-1 DU			✓		✓												✓
81896-1			✓		✓												✓
82226-3			✓		✓												✓

COMMENTS:

Analyst: M Woolley Date: 4/21/16 Batch # (optional): _____

Shipping and Receiving Documents

AFCEC
CHAIN OF CUSTODY RECORD

COC#: 1 SDG#: 1 Cooler ID: A

Ship to: Jessica DeHerrera Test America 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0165	Project Name: Griffiss AFB 1015-11-01 SVI TestAmerica Project Number: 28005987 Sampler Name: John Pratt	Send Results to: Karl Wilhelmsen FPM Remediations Inc 584 Phoenix Dr Rome, NY 13441 Phone: (315) 336-7721 Ext 227
Carrier: Fedex	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2016	Time	MATRIX	SMCODE	SBD/SED	SACODE	No. of Containers	VOCs (Note 1) 4 Oz. Glass Jar	Ignitibility Method 1030 4 Oz. Glass Jar	VOCs (Note 2) 40mL vial (HCl)	Comments
774776Carbon041916	774776-CarbonDrums	4/19	1240	S	G	0/0	N	1	1	-	-	VOCs according to TCLP for recycling
785786Carbon041916	785786-CarbonDrums	4/19	1345	S	G	0/0	N	1	1	-	-	VOCs according to TCLP for recycling
B101Carbon041916	B101-CarbonDrums	4/19	1430	S	G	0/0	N	2	1	1	-	VOCs according to TCLP for recycling
041916TB	Trip Blank	4/19	1230	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)	Date: 4.19.16	#2 Released by: (Sig)	Date:	#3 Released by: (Sig)	Date:
Company Name: FPM Remediations	Time: 1706	Company Name: FPM Remediations Inc	Time:	Company Name:	Time:
#1 Received by: (Sig)	Date: 4/20/16	#2 Received by: (Sig)	Date:	#3 Received by: (Sig)	Date:
Company Name: ~~FPM Remediations Inc~~ TAD	Time: 0915	Company Name:	Time:	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

280-82226 Chain of Custody

L3-02 DR#7 DW 4/20/16

Login Sample Receipt Checklist

Client: FPM Remediations Inc

Job Number: 280-82226-1

Login Number: 82226
List Number: 1
Creator: White, Denise E

List Source: TestAmerica Denver

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.	False	COC lists incorrect relinquished date
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 (excluding tests with immediate HTs)	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").	False	Headspace larger than 1/4".
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

NY 4 5 7 1 8 2 4 4 5 1

1. Document No. SYR13575

2. Page 1 of 1

3. Generator's Name and Mailing Address
AIR FORCE CIVIL ENGINEER CENTER ATTN DAVID S FARNSWORTH
8 COLORADO STREET
PLATTSBURGH NY 12903

4. Generator's Phone (315) 336-7721

Site Address
584 PHOENIX DRIVE
ROME NY 13440

5. Transporter 1 Company Name
ENVIRONMENTAL PROD & SVCS OF VT, INC

6. NYR000115733

A. State Transporter's ID

B. Transporter 1 Phone 800 843-8265

7. Transporter 2 Company Name

8.

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
ENVIRONMENTAL PROD & SVCS OF VT, INC
532 STATE FAIR BLVD.
SYRACUSE NY 13204
HM

10. NYR000115733

E. State Facility's ID

F. Facility's Phone
800 843-8265

GENERATOR

	11. Shipping Name	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a.	NON-RCRA, NON-DOT SOLIDS, N.O.S. (SPENT CARBON)	9	DM	4500	P
b.	Non-RCRA, Non-DOT Solids, N.O.S. (SPENT CARBON)	2	DF	500	P
c.					
d.					

G. Additional Descriptions for Materials Listed Above
a. APP #:0616415-DT, 9 x 55GAL
b. App# 0616415-DT 2 x 55 gal
c.
d. JOB #N15830

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: David S. Farnsworth — Signature: David S. Farnsworth — Date: Month 6 Day 27 Year 16

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: J M ONeill — Signature: J MONeill — Date: Month 6 Day 30 Year 16

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

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.

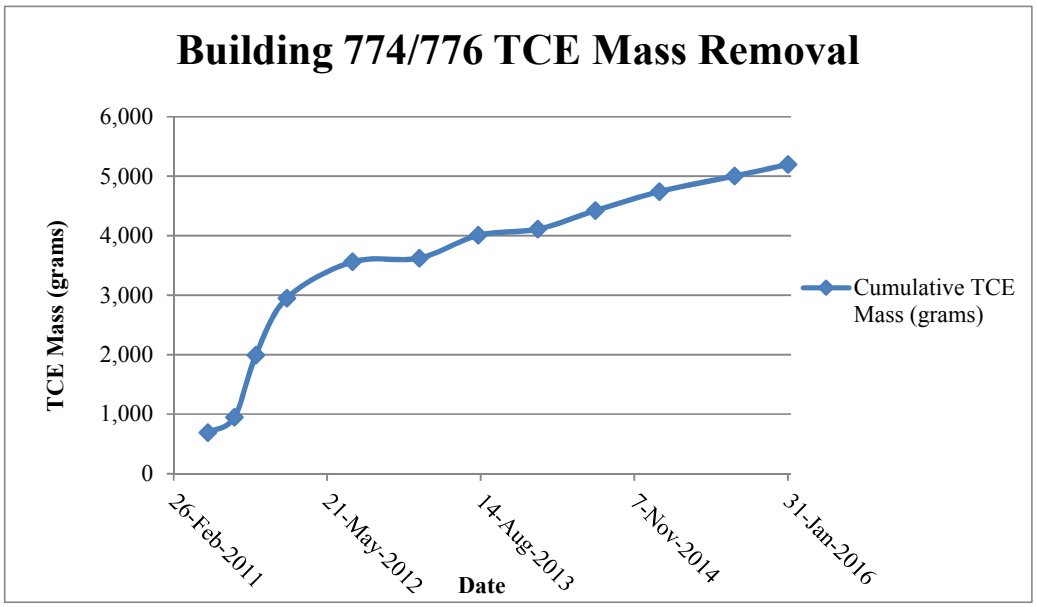
Printed/Typed Name: Robert Hersey — Signature: Robert Hersey — Date: Month 6 Day 30 Year 16

BILL OF LADING

Appendix C

Appendix C
B7774/776 Mass Contaminant Removal
Calculations and Trend Chart

Date	Influent (ug/m^3)	Average Flow Rate (acfm)	flow (m3/min)	flow (m3/period)	TCE Mass (grams/period)	Cumulative TCE Mass (grams)
6-Jun-2011	510	430	12.1856	1351139.348	689.08	689.08
23-Aug-2011	240	430	12.1856	1087930.384	261.10	950.18
25-Oct-2011	650	430	12.1856	1601187.864	1040.77	1990.96
24-Jan-2012	300	430	12.1856	3202375.727	960.71	2951.67
3-Aug-2012	190	430	12.1856	3202375.727	608.45	3560.12
15-Feb-2013	20	430	12.1856	3202375.727	64.05	3624.17
7-Aug-2013	120	430	12.1856	3202375.727	384.29	4008.45
28-Jan-2014	32	430	12.1856	3202375.727	102.48	4110.93
16-Jul-2014	97	430	12.1856	3202375.727	310.63	4421.56
20-Jan-2015	100	430	12.1856	3202375.727	320.24	4741.80
28-Aug-2015	82	430	12.1856	3202375.727	262.59	5004.39
1-Feb-2016	60	430	12.1856	3202375.727	192.14	5196.53



Appendix C
B785/786 Mass Contaminant Removal
Calculations and Trend Chart

Date	Influent (ug/m^3)	Average Flow Rate (acfm)	Flow (m3/min)	Flow (m3/period)	TCE Mass (grams/period)	Cumulative TCE Mass (grams)
19-May-2011	3500	240	6.801	893686.249	3127.902	3127.902
23-Aug-2011	520	240	6.801	607216.959	315.753	3443.655
25-Oct-2011	740	240	6.801	893686.249	661.328	4104.983
24-Jan-2012	140	240	6.801	1787372.499	250.232	4355.215
3-Aug-2012	250	240	6.801	1787372.499	446.843	4802.058
14-Feb-2013	93	240	6.801	1787372.499	166.226	4968.283
7-Aug-2013	130	240	6.801	117525.863	15.278	4983.562
20-Jan-2015	72	240	6.801	1787372.499	128.691	5112.253
28-Aug-2015	140	240	6.801	1787372.499	250.232	5362.485
1-Feb-2016	80	240	6.801	1787372.499	142.990	5505.475

