April 11, 2014

Ms. Karel Detterman, P.G.
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: **Indoor Air Sampling Report, Former Bell Cleaners, 1532 to 1540 Park Street, Alameda, California, Case No. RO0003080**

Dear Ms. Detterman,

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

Sincerely yours,

Marcia Breese

Marcia Breese

Enclosure

BONKOWSKI & ASSOCIATES, INC.
GEOTECHNICAL SERVICES AND HAZARDOUS MATERIALS MANAGEMENT

April 10, 2014
E211346-5

Ms. Karel Detterman, P.G.
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Indoor Air Sampling Report, Former Bell Cleaners, 1532 to 1540 Park Street, Alameda, California

Dear Ms. Detterman,

This *Indoor Air Sampling Report* was prepared by Bonkowski & Associates, Inc. (BAI) in association with Terracon Consultants on behalf of the von Wittenau Trust for the former dry cleaners site located at 1534 Park Street in Alameda, California. A site plan map is provided in Figure 1. This report is submitted to the Alameda County Department of Environmental Health (ACDEH) in accordance with the email directive dated January 9, 2014. The object of the work was to collect and test indoor air samples from the above referenced property for the purpose of detecting the presence of volatile organic compounds (VOCs) associated with historic dry cleaning operations at the Site. Previous sub-slab samples collected beneath this Site contained from 18,000 to 320,000 $\mu g/m^3$ of PCE. The work elements required to complete this task are summarized and described below.

BAI/Terracon collected a total of six (6) air samples (A-1 thru A-6) between January 30 thru 31, 2014 for chemical testing from the locations shown in Figure 1. Prior to collecting these samples, Terracon industrial hygienists conducted a building inventory to identify representative sample locations. Terracon selected indoor locations (A-1, A-2, A-3, and A-4) from within a total of three suites that comprise the above referenced building. Businesses occupying these suites include the Luque's Upholstery Shop; Former Bell Cleaners; and Genghis Kahn Kitchen. An emergency egress hallway separates the Genghis Kahn Kitchen from the former Bell Cleaners. Indoor air samples were collected within each suite, and the emergency hallway. Background air samples (A-5 and A-6) were collected from the roof of the building.

The air samples were collected in laboratory supplied 6-liter Summa canisters over a duration of 24 hours beginning on January 30, 2014. Terracon collected the canisters from the site on January 31, 2014 and transferred these under EPA Chain-of-Custody to Test America in Sacramento, California for chemical testing. Terracon's sampling methods are described in their *Limited Site Investigation Report* dated March 27, 2014 provided in Appendix A. Test America tested the samples for tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene using EPA Method TO-15 SIM. Test America's laboratory report is included as Appendix C of the Terracon Report.

The volatile organic compounds PCE and TCE were identified by Test America in all samples collected from the Site. The highest concentrations of these were reported in sample A-3, collected from Luque's Upholstery Shop. This sample contained 19 $\mu g/m^3$ PCE and 640 $\mu g/m^3$ TCE. The remaining indoor air samples contained from 1.0 to 7.6 $\mu g/m^3$ PCE and from 0.45 to 34 $\mu g/m^3$ TCE. The outdoor air samples collected from the roof contained from 0.15 to 0.30 $\mu g/m^3$ PCE and from 0.20 to 0.43 $\mu g/m^3$ TCE. The chemical test results are summarized in Table 1. No other VOCs were reported.

The chemical test results were compared to DTSC, RWQCB and California EPA (CEPA) Screening Levels in Table 1. The concentrations of PCE did not exceed Regional Screening Levels (RSLs) for industrial indoor air (DTSC, 2012). However, samples collected from each of the suites exceed the RSL for TCE. PCE and TCE concentrations in the samples collected in the suites exceed Environmental Screening Levels (ESLs), Indoor Air Screening Levels for Commercial/Industrial Land Use (RWQCB-SF, 2013). All of the indoor air samples exceed the PCE California Human Health Screening Level (CHHSL) for Indoor Air for Commercial/ Industrial Land Use Only (CEPA, January 2005). All of the samples collected in the suites exceed the CHHSL for TCE.

Because of these findings, BAI conducted a preliminary analysis of the incremental cancer risk and hazard quotient (HQ) of exposure to PCE and TCE in indoor air. These calculations were made following Appendix C of 2011 DTSC Vapor Intrusion Guidance document, and are summarized in Table 2. Incremental Cancer Risk and HQ calculations are presented in Appendix B.

The calculated risks associated with PCE did not exceed either the acceptable risk (1.00×10^{-6}) or HQ (1) in any of the suites or the emergency exit hallway. The calculated values of TCE in indoor air only exceeded the acceptable risk and HQ in Luque's Upholstery Shop. Within this location, the incremental cancer risk for TCE was calculated to be 1.85×10^{-5}. The HQ was calculated to be 12.6. The cumulative risk of PCE plus TCE in the upholstery shop was calculated to be 1.85×10^{-5}. The hazard index (HI) is 12.7. The acceptable cumulative risk (1.00×10^{-6}) and HI (1) were not exceeded in any of the other areas.

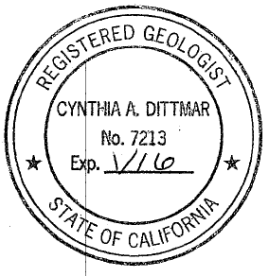
The 2011 DTSC vapor intrusion guidance document recommends an evaluation of the need for action at the site if the cumulative risk is between $1x10^{-6}$ and $1x10^{-4}$ and HI is greater than 1. These conditions are only observed in the upholstery shop. Under these circumstances, DTSC indicates that corrective actions might include additional data collection, monitoring, further risk characterization, mitigation and source remediation. It is important to note, however, that the concentration of TCE in indoor air in the upholstery shop exceeds that of the sub slab sample (ND) collected beneath the former dry cleaning equipment, even at this samples elevated reporting limit (RL) of 310 $\mu g/m^3$. The indoor air concentration of TCE also exceeds the DTSC estimated indoor air concentration by several orders of magnitude. These relations are not consistent with vapor intrusion from a sub slab source into indoor air. Hence, additional indoor air monitoring of the upholstery shop is required. This monitoring should be performed prior to implementing any indoor air corrective actions at the Site.

Please feel free to contact either of the undersigned at (510) 450-0770 if you have any questions or need any additional information.

Sincerely,
Bonkowski & Associates, Inc.

Michael S. Bonkowski, PG CEG 1329
Senior Managing Principal

Cynthia A. Dittmar, PG 7213
Project Geologist



cc: Ms. Marcia Breese
Mr. Michael von Wittenau

Attachments

Table 1. Indoor Air Positive Chlorinated Hydrocarbon Concentrations

Table 2. Risk Assessment
Figure 1. Indoor Air Sample Locations
Appendix A. Terracon, *Limited Site Investigation*, March 27, 2014
Appendix B. Incremental Cancer Risk and Hazard Quotient Assessment – Site Worker

References

Bonkowski & Associates, Inc., *Sub-Slab Vapor Sampling Report*, January 7 2014.

California Department of Toxic Substance Control (DTSC), *Final Guidance For The Evaluation And Mitigation Of Subsurface Vapor Intrusion To Indoor Air (Vapor Intrusion Guidance),* October 2011.

DTSC 2009 revision of United States Environmental Protection Agency, *User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. Office of Emergency and Remedial Response,* June 19, 2003.

DTSC**,** *Vapor Intrusion Mitigation Advisory, Final, Revision 1***,** October 2011.

San Francisco Bay Region, California State Water Resources Control Board, *Environmental Screening Levels*, May, 2013.

California Environmental Protection Agency, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, January 2005

BONKOWSKI & ASSOCIATES, INC.

Tables

Table 1. Indoor Air Positive Chlorinated Hydrocarbon Concentrations
1534 Park Street, Alameda, California

Sample No.	Sample Container No.	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	Date
A-1	34000176	1.0	0.45	1/30/2014
A-2	34001592	4.6	34	1/30/2014
A-3	34000281	19	640	1/30/2014
A-4	34001242	7.6	8.0	1/30/2014
A-5	34002023	0.30	0.20	1/30/2014
A-6	34001307	0.15	0.43	1/30/2014
ESL[1]		2.1	3.0	
ESL[2]		0.41	0.59	
RSL[3]		47	3.0	
CHHSL[4]		0.693	2.04	

1 -- SF RWQCB Ambient and Indoor Air Screening Level (ESL),Commercial/Industrial, 5/13,

2 -- SF RWQCB Ambient and Indoor Air Screening Level (ESL), Residential, 5/13

3 --DTSC Regional Screening Level, Indoor Air, Industrial, 11/12

4 -- California Human Health Screening Level, Indoor Air, Commercial/Industrial Land Use Only, 1/05

Table 2. Incremental Cancer Risk and Hazard Quotient
1532, 1534 and 1540 Park Street, Alameda, California

Chemical	Incremental Cancer Risk	Hazard Quotient	
1532 Park Street - Luque's Upholstery			
PCE	8.38×10^{-8}	0.019	
TCE	1.85×10^{-5}	12.6	
Cumulative Risk	1.85×10^{-5}	12.7	**Hazard Index**
1534 Park Street - Former Bell Cleaners			
PCE	2.03×10^{-8}	0.0045	
TCE	9.80×10^{-7}	0.67	
Cumulative Risk	1.00×10^{-6}	0.68	**Hazard Index**
1540 Park Street - Genghis Kahn Kitchen			
PCE	3.35×10^{-8}	0.0075	
TCE	2.31×10^{-7}	0.16	
Cumulative Risk	2.64×10^{-7}	0.17	**Hazard Index**

Assumed Values

C		Indoor Air Concentration
ET	8	Exposure time (hours per day)
EF	260	Exposure Frequency (days per year)
ED	5	Exposure duration
AT_c	70	Period of time over which exposure is averaged - carcinogens (years)
AT_{nc}	30	Period of time over which exposure is averaged - non-carcinogens (years)

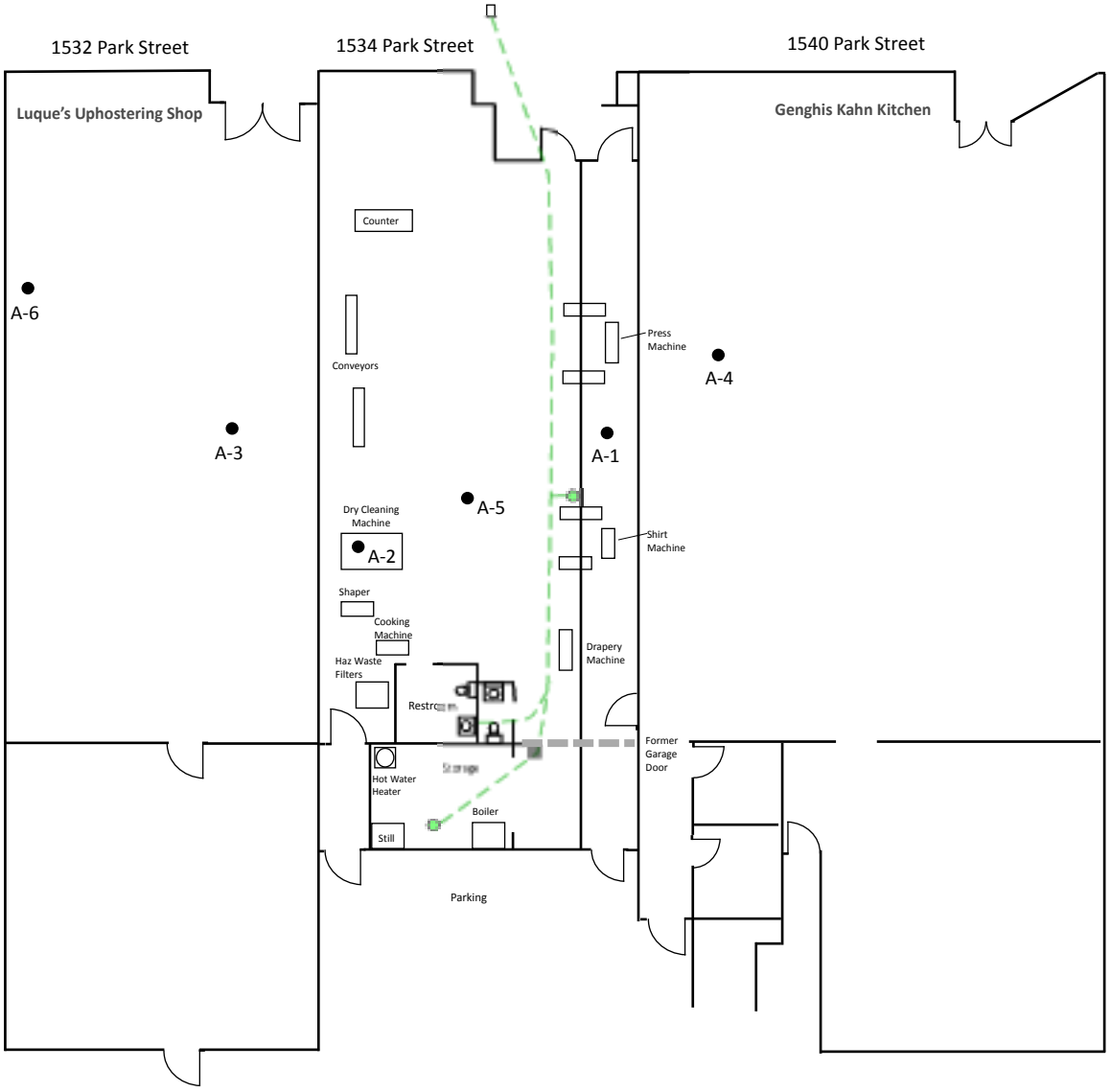
Cumulative Risk - Sum of incremental risks

Hazard Index - Sum of hazard quotients

BONKOWSKI & ASSOCIATES, INC.

Figures

PARK STREET



LEGEND

- A-1 ● Air Sample Location
- Floor Drain
- Sewer Cleanout
- Sewer LIne
- Sewer Box

N

Approximate Scale (feet):

0 10 20

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	AIR SAMPLE LOCATIONS	Figure 1
Bonkowski & Associates, Inc.			

BONKOWSKI & ASSOCIATES, INC.

Appendix A

LIMITED SITE INVESTIGATION

THE POWELL BUILDING
1534 PARK STREET
ALAMEDA, CALIFORNIA

March 27, 2014

Terracon Project No. AP147010

Prepared for:
Bonkowski & Associates, Inc.
Emeryville, California

Prepared by:
Terracon Consultants, Inc.
Emeryville, California

March 27, 2014

Bonkowski & Associates
6400 Hollis Street, Suite 4
Emeryville, California 94608

Attn: Ms. Cindy Dittmar
P: (510) 450-0770 x13
E: cindy@bonkowski.com

Re: Limited Site Investigation
Powell Building
1534 Park Street
Alameda, Alameda County, California
Terracon Project No. AP147010

Dear Ms. Dittmar:

Terracon Consultants, Inc. (Terracon) is pleased to submit the Limited Site Investigation (LSI) report for the above-referenced site. This investigation was performed in accordance with Terracon proposal PAP137175 dated January 23, 2014 between Bonkowski & Associates, Inc. (Bonkowski) and Terracon Consultants.

We appreciate the opportunity to perform these services for Bonkowski. Please contact either of the undersigned at (510) 923-1661 if you have questions regarding the information provided in the report.

Sincerely,
Terracon Consultants, Inc.

Prepared by

David Ufferfilge

David Ufferfilge, MS, CIH
Industrial Hygiene Group Manager

Reviewed by:

Craig D. Eaton

Craig D. Eaton
Senior Associate
Environmental Department Manager

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APPENDICES

LIMITED SITE INVESTIGATION
THE POWELL BUILDING
1534 PARK STREET
ALAMEDA, ALAMEDA COUNTY, CALIFORNIA

Terracon Project No. AP147010
March 27, 2014

1.0 INTRODUCTION

1.1 Site Description

Site Name	The Powell Building
Site Location/Address	1534 Park Street, Alameda, California
General Site Description	The site is located at 1534 Park St in Alameda, Alameda County, California. The three-unit building contains the Genghis Khan restaurant, a vacated dry cleaners business, and an upholstery shop. According to Ms. Cindy Dittmar, Bonkowski & Associates, Inc., the property owner reported that the dry cleaner closed in 1990.

1.2 Scope of Work

Terracon conducted a Limited Site Investigation (LSI) at the Powell Building, located at 1534 Park Street, Alameda, California (the site) from January 30 to 31, 2014. The LSI was requested by Bonkowski to supplement their soil, water, and soil vapor investigations recently completed at the site.

The objective of this LSI was to evaluate for the presence of typical dry cleaner volatile organic compounds (VOCs) above relevant regulatory screening levels in the on-site indoor air.

1.3 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal.

1.4 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.5 Reliance

This report has been prepared for the exclusive use of Bonkowski & Associates, Inc. and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Bonkowski & Associates, Inc. and Terracon. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed on in writing.

2.0 FIELD ACTIVITIES

Terracon's indoor air sampling field activities were conducted on January 30-31, 2014 by an Industrial Hygienist and a Certified Industrial Hygienist with Terracon. Sample locations are shown in Appendix A and photographs of sample locations are included in Appendix B.

The indoor air sampling was conducted in general accordance with the California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control's (DTSC) "Final Guideline for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)", dated October 2011.[1] A building survey was conducted in accordance with the Vapor Intrusion Guidance, documenting parameters that can affect vapor accumulation. The Building Survey Form is provided in Appendix B.

[1] *"Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)", Department of Toxic Substances Control California Environmental Protection Agency, October 2011.*

2.1 Volatile Organic Compound Screening

A MiniRAE 3000 portable handheld volatile organic compound (VOC) monitor (Model PGM-7320, Asset No. 22050) has a photo-ionization detector (PID) to measure total VOCs. The instrument was calibrated before and after use with certified 100 parts per million (ppm) isobutylene calibration gas. The ultraviolet light lamp in the MiniRAE 3000 was a 10.6 electron volt (eV) lamp. The advantage of this instrument is that it can detect over 200 different VOCs and assist in identifying the locations of a VOC source. The disadvantages are that it reports total VOCs, which cannot be compared to regulatory screening levels, and it does not distinguish which specific VOCs are being detected. However, the Cal EPA guidance document recommends the use of a hand-held VOC meter. Each VOC has a unique correction factor, so results are presented as isobutylene equivalents.

2.2 Indoor and Ambient Air Sampling

An air sampling event was conducted at the site that included collection of four indoor air samples and two ambient air samples. The sampling locations are shown in Appendix A. The four indoor air samples (34001592, 34000176, 34001242 and 34000281) were collected in the following locations.

- **34001242:** near the southeast end of the buffet table in the Genghis Khan restaurant;
- **34000176:** in the hallway between the former dry cleaner space and the Genghis Khan restaurant;
- **34001592:** near the southeast wall of the former dry cleaner space, which is currently unoccupied; and
- **34000281:** in the middle of the work area of the Luque's Upholstery Shop.

The two ambient air samples (34001307, 34002023) were collected in the following locations.

- **34001307:** on the southwest area of the roof in the upwind direction; and
- **34002023:** near the center of the roof in close proximity to a ventilation air intake of one of the building's air handlers.

The indoor air and ambient air samples were collected in laboratory-provided individually certified 6-liter stainless air canisters fitted with laboratory-provided and calibrated 24-hour flow controllers. Samples were collected during a 24-hour period and while the Genghis Khan restaurant and Luque's Upholstery Shop conducted business.

2.3 Laboratory Analytical Methods

The indoor air samples (34001592, 34000176, 34001242, and 34000281) and the ambient air samples (34001307 and 34002023) were submitted under chain-of-custody to Test America Laboratories, Sacramento, California, for analyses of tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2 DCE), trans-1,2-dichloroethene (trans-1,2 DCE), and vinyl chloride by EPA Method TO-15 SIM. Test America Laboratories is certified by the State of California (Certificate #2897). Test America Laboratories adheres to all EPA Quality Assurance and Quality Control (QA/QC) protocols. The corresponding laboratory data sheets and executed chain-of-custody forms are provided in Appendix C.

2.4 Indoor/Ambient Air Screening Levels

The indoor air and ambient air sample results have been compared to both the California Human Health Screening Levels (CHHSLs) and the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels.

Cal/EPA California Human Health Screening Levels

The Cal/EPA uses the California Human Health Screening Levels (CHHSLs) to screen concentrations of hazardous chemicals. Typically, when concentrations are below the CHHSLs, they are considered to be below thresholds of concern for risks to human health. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in a million and a hazard quotient of 1.0 for non-cancer health effects. Under most circumstances, the presence of a chemical in indoor air at concentrations below the corresponding commercial/industrial CHHSLs can be assumed not to pose a significant health risk to people who work at a commercial/industrial site. The presence of a chemical in indoor air at concentrations above the corresponding CHHSL does not indicate that adverse impacts to human health are occurring or will occur, but suggests further evaluation is warranted. Further evaluation may include additional sampling at the site. CHHSLs are not cleanup standards, are voluntary on the part of those who choose to use them, and do not address environmental impacts.[2]

San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels

The SFBRWQCB uses Environmental Screening Levels (ESL) to screen concentrations of hazardous chemicals. Like the CHHSLs, the ESLs are not intended to establish policy or regulation, are not a stand-alone decision-making tool, and should not be used to determine when the release of a hazardous chemical must be reported to an overseeing regulatory agency. ESLs are conservative values for soil, groundwater, surface water, soil gas, and indoor

[2] *"Use of California Human Health Screening Levels (CHHSLs) in the Evaluation of Contaminated Properties", California Environmental Protection Association, January 2005, pp. iii-iv.*

air that can be compared to environmental data collected on site. With certain limitations, risks to human health and the environment can be considered not to be of regulatory concern where concentrations of chemicals of concern do not exceed their respective ESLs. The presence of chemicals of concern above the ESLs does not necessarily indicate that a significant risk exists at the site; however, additional evaluation of potential environmental concerns is warranted. The SFBRWQCB User's Guide recommends comparing sampling results to the residential ESLs, even though this site is defined as a commercial/ industrial structure.[3]

3.0 DATA EVALUATION

3.1 Site Observations

The following conditions were observed on the day of monitoring in the Ghengis Kahn restaurant:

- The owners of Genghis Khan said that they did not store any cleaning chemicals on-site, only a can of Lysol spray.
- Genghis Khan does not have any tablecloths, napkins, employee uniforms, or other fabrics that are dry cleaned; however, some of the restaurant patrons wear suits that could have been dry cleaned.
- The floor of the dining area is carpeted. The hallway to the restroom, kitchen area, and area surrounding the buffet table are tiled. No cracks were observed in the flooring areas throughout the restaurant.
- Floor drains, whichappeared to be in good condition, are present in the kitchen area.

The following conditions were observed on the day of monitoring in the hallway between the restaurant and the former dry cleaner unit:

- The emergency evacuation hallway had 1-gallon buckets of paint stored on a shelf in the southern end. None of the chemicals of concern are listed in the paints.
- No cracks were observed in the floor in the emergency hallway. The floor appeared to be recently sealed. No floor penetrations were observed in the hallway.
- The emergency hallway was not occupied.

[3] *"User's Guide: Derivation and Application of Environmental Screening Levels", San Francisco Bay Regional Water Quality Control Board, Oakland, California, December 2013.*

The following conditions were observed on the day of monitoring in the former dry cleaner space:

- The former dry cleaner space was vacant during testing.
- The former dry cleaner space had a ceiling-attached heater. The heater was not in operation during the sampling and did not actively introduce outside air into the unit.
- A floor drain cover and associated floor drain near the northeast wall of the former dry cleaner unit appeared to be deteriorated. The cover was easily removable from the drain.
- Cracks were observed in the bare concrete floor of the former dry cleaning unit (see Photos 7-10 in Appendix B).

The following conditions were observed on the day of monitoring in Luque's Upholstery Shop:

- It was reported that the Luque's Upholstery Shop owner did some upholstery repair work earlier in the morning using Keyson General Purpose Adhesive. This adhesive was reported to be the most frequently used product in the shop. None of the chemicals of concern were listed in the MSDS for the Keyston General Purpose Adhesive.
- No chemicals of concern were listed on the MSDS for other products stored and used in the upholstery shop, including Keyston Silicon Release Spray, Gorilla Glue, Elmer's Wood Glue Max, DAP Plastic Wood, Old English Furniture Polish, and WD-40.
- The owners of Luque's Upholstery Shop said that they do wear dry cleaned clothes and their customers typically do not wear dry cleaned clothes.
- The front section of the upholstery shop was carpeted. The central work area had floors with square vinyl floor tile. Many of the floor tiles were dislodged. The back storage area floor was bare concrete with cracks present (see Photos 11-14 in Appendix B).
- The front, central, and back areas on the upholstery shop contained large volumes of upholstering fabric, some manufactured in China (see Photos 15-17 in Appendix B).
- Dacron, cotton, foam rubber, and naugahyde padding for furniture was stored and used in the upholstery shop (see Photo 18 in Appendix B).

3.2 Volatile Organic Compound Screening

The MiniRAE 3000 PID has limits of detection in the range of parts per million, which is far above typical indoor vapor intrusion screening levels that are in the range of parts per billion. However, the MiniRAE 3000 can be used as a field screening tool to identify locations where VOCs are present.

No positive PID readings were observed outdoors, on the roof, inside the restaurant, or inside the emergency hallway. Low concentrations of VOCs were reported in the indoor air of the upholstery shop. Glue was being used in the upholstery shop in the morning prior to the monitoring and a glue odor was perceived. The MiniRAE 3000 PID screening results are shown below in Table 1 below.

Table 1
Volatile Organic Compound Screening Results
(Results are in parts per million)

Time	Reading*	Location
8:58	0.0	Zero filter
11:34	0.0	Outside – Back entry of upholstery shop
11:35	2.5	Inside – Back storage area of upholstery shop
11:35	3.2	Inside – Upholstery shop central work shop
11:35	2.0	Inside – Upholstery shop store front area
11:36	0.0	Outside – Upholstery shop entry
12:18	0.0	Roof
12:19	0.0	Roof – West Corner
12:19	0.0	Roof – Penetration
12:19	0.0	Roof – Exhaust vent of dry cleaner unit
12:30	0.0	Inside – Emergency hallway
12:31	0.0	Inside – Restaurant dining area
12:32	0.0	Inside – Restaurant kitchen

* Total volatile organic compounds reported as isobutylene equivalents with a MiniRAE 3000

3.3 Indoor/Ambient Air Samples

The results of the indoor and ambient air sample laboratory analyses are presented in Table 2. Included in Table 2 are Cal/EPA's commercial/industrial CHHSLs and SFBRWQCB's ESLs for both residential and commercial/industrial land use scenarios.

Table 2
Air Sampling Results –Volatile Organic Compounds
(Results are in µg/m³)

Sample ID / Location	PCE	TCE	cis-1,2 DCE	trans-1,2 DCE	Vinyl chloride
34001307 / Roof SW upwind	0.15	0.43	<0.079	<0.079	<0.051*
34002023 / Roof central	0.30	0.20	<0.079	<0.079	<0.051*
34001242 / Restaurant near SE end of buffet	**7.6**	**8.0**	<0.079	<0.079	<0.051*
34000176 / Hallway between dry cleaner and restaurant	**1.0**	0.45	<0.079	<0.079	<0.051*
34001592 / Dry cleaners near SE Wall towards back	**4.6**	**34**	<0.079	<0.079	<0.051*
34000281 / Upholstery shop	**19**	**640**	<0.079	<0.079	<0.051*
Cal/EPA CHHSL Commercial/Industrial Indoor Air [1]	0.693	2.04	51.1	102	0.0524
SFBRWQCB ESL Tier 2 Residential Indoor Air [2]	0.41	0.59	7.3	63	0.031
SFBRWQCB ESL Tier 2 Commercial/Industrial Indoor Air [3]	2.1	3.0	31	260	0.16

1 California Human Health Screening Levels for commercial/industrial land use (2005)
2 San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels - Residential 12/2013
3 San Francisco Bay Regional Water Quality Control Board's Environmental Screening Levels - Commercial/Industrial 12/2013
* The reporting limit is higher than the residential ESLs
Bold highlighted values exceed either the CHHSLs or the ESLs, whichever is lower (i.e. more conservative).

As shown in Table 1, PCE and TCE were the only two constituents reported above the analytical reporting limits in any of the samples. The concentrations reported in the two roof samples were below all of the screening levels and the concentrations reported in the four indoor air samples were all above the screening levels. The highest concentrations of PCE and TCE were reported in Luque's Upholstery Shop.

Cis-1,2 DCE, trans-1,2 DCE, and vinyl chloride were not reported in any of the samples. The laboratory reporting limit for vinyl chloride (0.051 µg/m^3) was slightly higher than its residential ESL. The laboratory reporting limit is defined as the lowest amount of an analyte in a sample that can be quantitatively determined with stated, acceptable precision and accuracy under stated analytical conditions. The results were all below the method detection limit, which is defined as the lowest concentration of a chemical that can reliably be distinguished from zero, for vinyl chloride of 0.010 µg/m^3, which is below the residential ESL of 0.031 µg/m^3. While the method detection limit is not quantitative, the lack of reported concentrations above the method detection limit indicates it is unlikely vinyl chloride is present at concentrations exceeding the ESL.

4.0 FINDINGS AND RECOMMENDATIONS

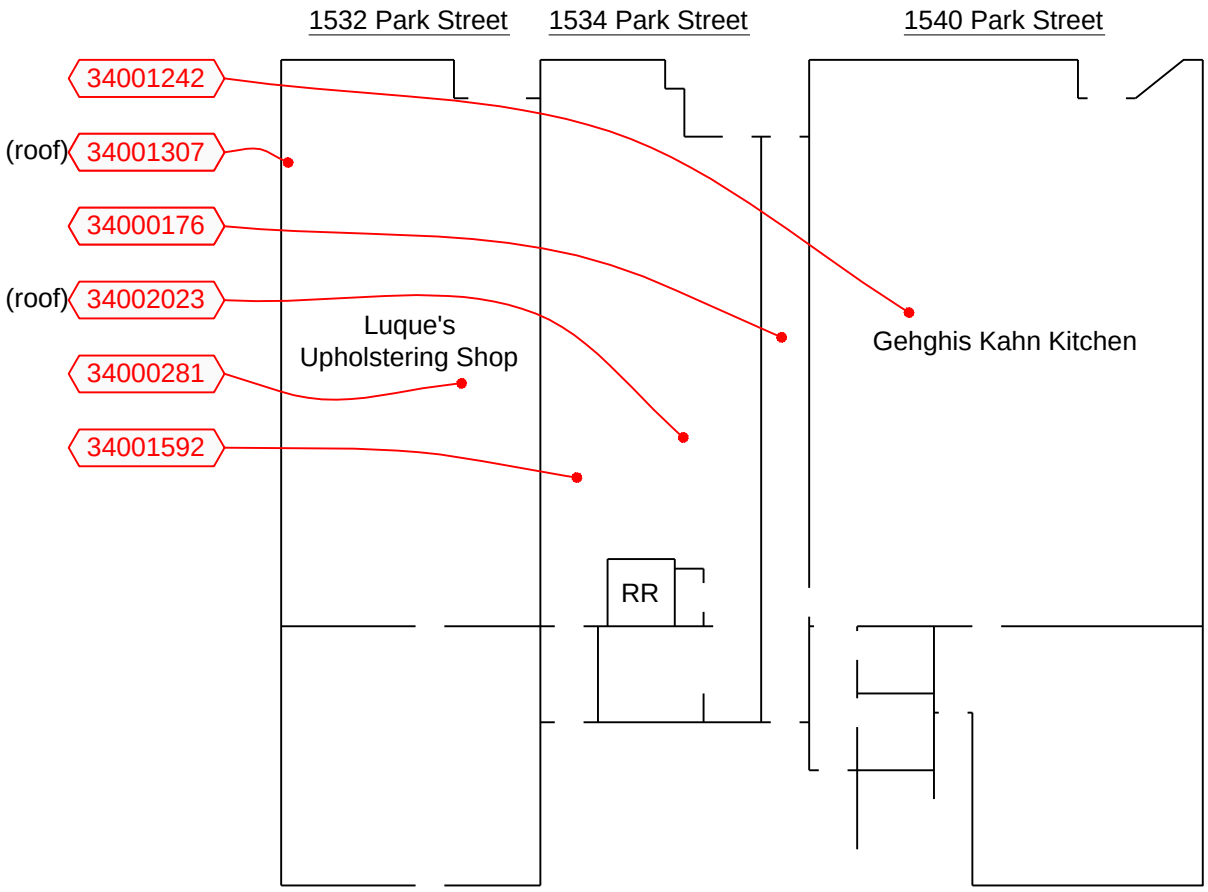
The objective of this LSI was to evaluate the subject site for the presence of typical dry cleaner volatile organic compounds (VOCs) above relevant regulatory screening levels in the on-site indoor air. Based on the laboratory analytical results for the indoor and ambient air samples, PCE and TCE are present at concentrations exceeding the regulatory screening levels. PCE and TCE were reported, in the general order of lowest to highest concentrations, in the emergency hallway between the dry cleaner and the restaurant, in the Genghis Khan restaurant, in the former dry cleaner space, and in Luque's Upholstery Shop. While the two roof samples both reported PCE and TCE, the concentrations were one to three orders of magnitude lower than the indoor air samples. Based on the ambient air sample results, it does not appear that the source of the PCE and TCE in indoor air is the ambient conditions outside of the building.

The possible, yet unlikely, secondary indoor sources of PCE and TCE include the upholstery shop fabrics, upholstery shop padding materials, restaurant customers wearing dry cleaned clothes, and trace components of the spray adhesive used in the upholstery shop. Due to the lack of a shared ventilation system, it is unlikely a secondary indoor PCE or TCE source in the upholstery shop would accumulate in other units of the property.

Because both PCE and TCE were reported above regulatory screening levels inside the building, Terracon recommends taking vapor mitigation measures to reduce concentrations of PCE and TCE inside the building and/or conducting additional indoor air sampling following Cal/EPA's guidance document recommendations to evaluate concentrations of PCE and TCE under varying conditions (e.g. seasonal variations, temporal changes, varying site conditions, etc.).

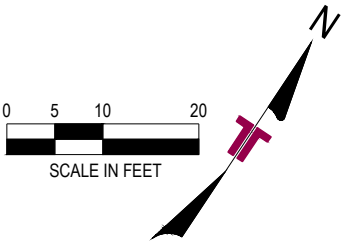
APPENDIX A

Figure



Explanation

34000000 Vapor Sample Number & Location



Project Mngr: DU Drawn By: Keith Checked By: DU Approved By: ~	Project No. AP147010 Scale: 1" = 20' - 0" File No. AP147010.dwg Date: March 2014	Terracon Consulting Engineers and Scientists 1260 45th Street Emeryville, California PH. (510) 923-1661 FAX. (510) 923-1468	Sample Locations Bonkowski - Alameda - Vapor Bonkowski & Associates, Inc. 1534 Park Street Alameda, California	FIG. No. 1

APPENDIX B

Sample Documentation

Photo 1
34001307 / Roof SW upwind

Photo 2
34002023 / Roof central

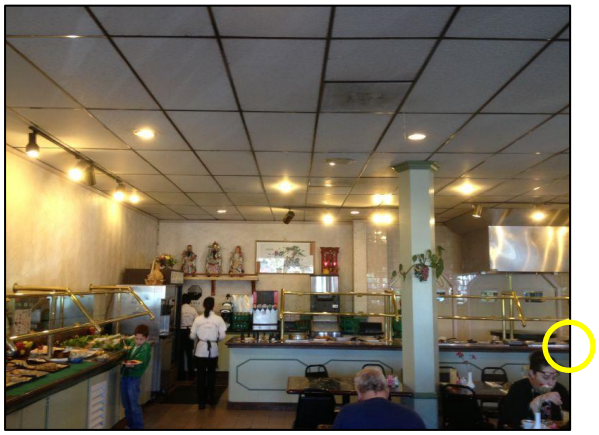


Photo 3
34001242 / Restaurant near SE end of buffet

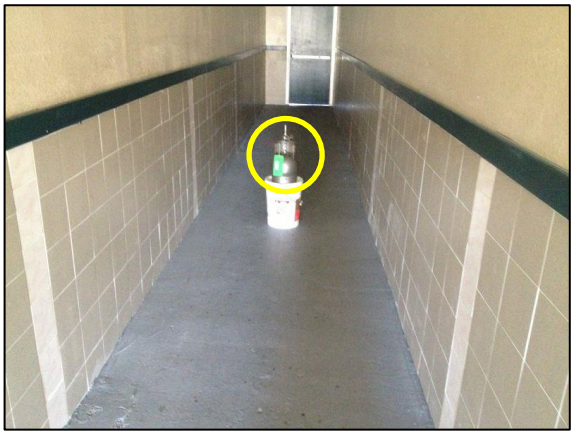


Photo 4
34000176 / Hallway between dry cleaners and restaurant

Photo 5
34001592 / Dry cleaners near SE Wall towards back

Photo 6
Upholstery shop

Photo 7
Former dry cleaning unit floor

Photo 8
Former dry cleaning unit floor

Photo 9
Former dry cleaning unit floor

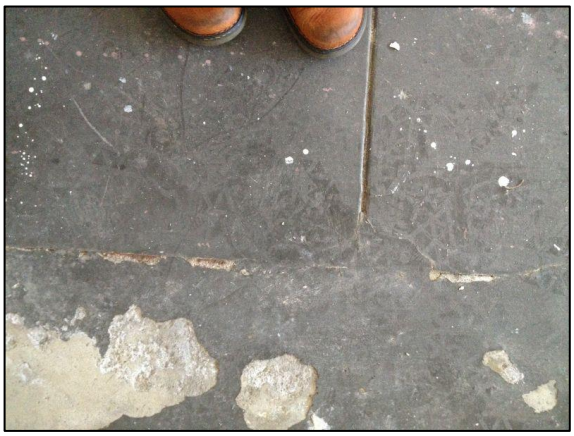


Photo 10
Former dry cleaning unit floor

Photo 11
Upholstery shop back floor

Photo 12
Upholstery shop central floor

Photo 13
Upholstery shop back floor

Photo 14
Upholstery shop back doorway

Photo 15
Upholstery shop

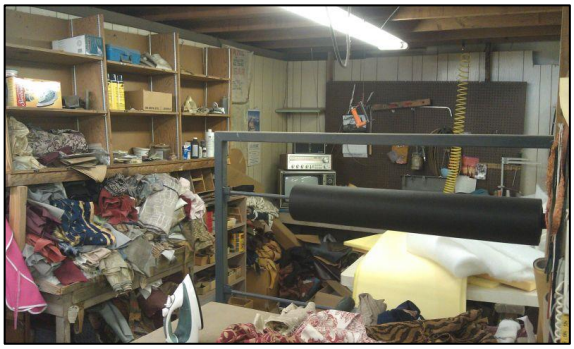


Photo 16
Upholstery shop

Photo 17
Upholstery shop

Photo 18
Upholstery shop

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: Michael Saldate Date/Time Prepared: 1/30/2014
Affiliation: Terracon Phone Number: 510-923-1661

Occupant Information

Occupant Name: Anna Fong Interviewed: ☑ Yes ☐ No
Mailing Address: 1534 Park Street
City: Alameda State: Ca Zip Code: 94501
Phone: 510-522-8398 Email: -

Owner/Landlord Information (Check if same as occupant ☑)

Occupant Name: Anna Fong Interviewed: ☑ Yes ☐ No
Mailing Address: 1534 Park Street
City: Alameda State: Ca Zip Code: 94501
Phone: 510-522-8398 Email: -

Building Type (Check appropriate boxes)

☐ Residential ☐ Residential Duplex ☐ Apartment Building ☐ Mobile Home ☑ Commercial (office)
☐ Commercial (warehouse) ☐ Industrial ☐ Strip Mall ☐ Split Level ☐ Church ☐ School

Building Characteristics

Approximate Building Age (years): 89 Number of Stories: 1
Approximate Building Area (square feet): ~6700 Number of Elevators: 0

Foundation Type (Check appropriate boxes)

☑ Slab-on-Grade ☐ Crawl Space ☐ Basement

Basement Characteristics (Check appropriate boxes)

☐ Dirt Floor ☐ Sealed ☐ Wet Surfaces ☐ Sump Pump ☐ Concrete Cracks ☐ Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	☐ Yes	☑ No	
Is there smoking in the building?	☐ Yes	☑ No	
Is there new carpet or furniture?	☐ Yes	☑ No	Describe:
Have clothes or drapes been recently dry cleaned?	☐ Yes	☑ No	Describe:
Has painting or staining been done with the last six months?	☐ Yes	☑ No	Describe:
Has the building been recently remodeled?	☐ Yes	☑ No	Describe:
Has the building ever had a fire?	☐ Yes	☐ No	
Is there a hobby or craft area in the building?	☑ Yes	☐ No	Describe: upholstery Shop
Is gun cleaner stored in the building?	☐ Yes	☑ No	
Is there a fuel oil tank on the property?	☐ Yes	☑ No	Gas Station across street
Is there a septic tank on the property?	☐ Yes	☐ No	
Has the building been fumigated or sprayed for pests recently?	☐ Yes	☐ No	Describe:
Do any building occupants use solvents at work?	☑ Yes	☐ No	Describe: upholstery Shop

APPENDIX C

Laboratory Data Sheets and Corresponding Chains-of-Custody Forms

APPENDIX C

Laboratory Data Sheets and Corresponding Chains-of-Custody Forms

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-5933-1
Client Project/Site: Indoor Air

For:
Terracon Consultants, Inc
1260 45th Street
Emeryville, California 94608

Attn: David Ufferfilge

Authorized for release by:
2/18/2014 1:37:28 PM

Laura Turpen, Project Manager II
(916)373-5600
laura.turpen@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Job ID: 320-5933-1

Laboratory: TestAmerica Sacramento

Narrative

Receipt

The samples were received on 2/3/2014 9:15 AM; the samples arrived in good condition.

Air - GC/MS VOA

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

VOA Prep

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

Detection Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Client Sample ID: 34001592 Dry Cleaners near SE wall towards back — Lab Sample ID: 320-5933-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.67		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene - DL	6.3		0.17	0.042	ppb v/v	8.3		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	4.6		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene - DL	34		0.89	0.22	ug/m3	8.3		TO-15 SIM	Total/NA

Client Sample ID: 34000176 Hallway between dry cleaners & restaurant — Lab Sample ID: 320-5933-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.15		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.083		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.0		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.45		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: 34001242 Restaurant near SE end of buffet — Lab Sample ID: 320-5933-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	1.5		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7.6		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	8.0		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: 34000281 Upholstry shop middle of work area — Lab Sample ID: 320-5933-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.8		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene - DL	120		1.8	0.44	ppb v/v	88		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	19		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene - DL	640		9.5	2.4	ug/m3	88		TO-15 SIM	Total/NA

Client Sample ID: 34001307 Roof SW upwind — Lab Sample ID: 320-5933-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.021		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.081		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.15		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.43		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

Client Sample ID: 34002023 Roof Central — Lab Sample ID: 320-5933-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: 34002023 Roof Central (Continued)

Lab Sample ID: 320-5933-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.045		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.037		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.30		0.14	0.068	ug/m3	1		TO-15 SIM	Total/NA
Trichloroethene	0.20		0.11	0.027	ug/m3	1		TO-15 SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Client Sample ID: 34001592 Dry Cleaners near SE wall towards back

Lab Sample ID: 320-5933-1

Date Collected: 01/31/14 11:55
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Matrix: Air

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/17/14 17:40	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/17/14 17:40	1
Tetrachloroethene	**0.67**		0.020	0.010	ppb v/v			02/17/14 17:40	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/17/14 17:40	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/17/14 17:40	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/17/14 17:40	1
Tetrachloroethene	**4.6**		0.14	0.068	ug/m3			02/17/14 17:40	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/17/14 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*02/17/14 17:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*		*02/17/14 17:40*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*02/17/14 17:40*	*1*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**6.3**		0.17	0.042	ppb v/v			02/18/14 04:33	8.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**34**		0.89	0.22	ug/m3			02/18/14 04:33	8.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*02/18/14 04:33*	*8.3*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*		*02/18/14 04:33*	*8.3*
Toluene-d8 (Surr)	*96*		*70 - 130*		*02/18/14 04:33*	*8.3*

Client Sample ID: 34000176 Hallway between dry cleaners & restaurant

Lab Sample ID: 320-5933-2

Date Collected: 01/31/14 12:58
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Matrix: Air

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/14/14 22:55	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/14/14 22:55	1
Tetrachloroethene	**0.15**		0.020	0.010	ppb v/v			02/14/14 22:55	1
Trichloroethene	**0.083**		0.020	0.0050	ppb v/v			02/14/14 22:55	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/14/14 22:55	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/14/14 22:55	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/14/14 22:55	1
Tetrachloroethene	**1.0**		0.14	0.068	ug/m3			02/14/14 22:55	1
Trichloroethene	**0.45**		0.11	0.027	ug/m3			02/14/14 22:55	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/14/14 22:55	1

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Client Sample ID: 34000176 Hallway between dry cleaners & restaurant

Lab Sample ID: 320-5933-2

Date Collected: 01/31/14 12:58
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*		*02/14/14 22:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*02/14/14 22:55*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/14/14 22:55*	*1*

Client Sample ID: 34001242 Restaurant near SE end of buffet

Lab Sample ID: 320-5933-3

Date Collected: 01/31/14 12:21
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/14/14 23:52	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/14/14 23:52	1
Tetrachloroethene	**1.1**		0.020	0.010	ppb v/v			02/14/14 23:52	1
Trichloroethene	**1.5**		0.020	0.0050	ppb v/v			02/14/14 23:52	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/14/14 23:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/14/14 23:52	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/14/14 23:52	1
Tetrachloroethene	**7.6**		0.14	0.068	ug/m3			02/14/14 23:52	1
Trichloroethene	**8.0**		0.11	0.027	ug/m3			02/14/14 23:52	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/14/14 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*02/14/14 23:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*02/14/14 23:52*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*02/14/14 23:52*	*1*

Client Sample ID: 34000281 Upholstry shop middle of work area

Lab Sample ID: 320-5933-4

Date Collected: 01/31/14 12:00
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/15/14 00:47	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/15/14 00:47	1
Tetrachloroethene	**2.8**		0.020	0.010	ppb v/v			02/15/14 00:47	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/15/14 00:47	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/15/14 00:47	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/15/14 00:47	1
Tetrachloroethene	**19**		0.14	0.068	ug/m3			02/15/14 00:47	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/15/14 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*02/15/14 00:47*	*1*

Client Sample ID: 34000281 Upholstry shop middle of work area

Lab Sample ID: 320-5933-4

Date Collected: 01/31/14 12:00
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*02/15/14 00:47*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*02/15/14 00:47*	*1*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**120**		1.8	0.44	ppb v/v			02/17/14 18:28	88

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**640**		9.5	2.4	ug/m3			02/17/14 18:28	88

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*02/17/14 18:28*	*88*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*		*02/17/14 18:28*	*88*
Toluene-d8 (Surr)	*96*		*70 - 130*		*02/17/14 18:28*	*88*

Client Sample ID: 34001307 Roof SW upwind

Lab Sample ID: 320-5933-5

Date Collected: 01/31/14 12:32
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/15/14 01:43	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/15/14 01:43	1
Tetrachloroethene	**0.021**		0.020	0.010	ppb v/v			02/15/14 01:43	1
Trichloroethene	**0.081**		0.020	0.0050	ppb v/v			02/15/14 01:43	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/15/14 01:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/15/14 01:43	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/15/14 01:43	1
Tetrachloroethene	**0.15**		0.14	0.068	ug/m3			02/15/14 01:43	1
Trichloroethene	**0.43**		0.11	0.027	ug/m3			02/15/14 01:43	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/15/14 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*02/15/14 01:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*02/15/14 01:43*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*02/15/14 01:43*	*1*

Client Sample ID: 34002023 Roof Central

Lab Sample ID: 320-5933-6

Date Collected: 01/31/14 12:37
Matrix: Air
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/15/14 02:38	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/15/14 02:38	1

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Client Sample ID: 34002023 Roof Central
Date Collected: 01/31/14 12:37
Date Received: 02/03/14 09:15
Sample Container: Summa Canister 6L

Lab Sample ID: 320-5933-6
Matrix: Air

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**0.045**		0.020	0.010	ppb v/v			02/15/14 02:38	1
Trichloroethene	**0.037**		0.020	0.0050	ppb v/v			02/15/14 02:38	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/15/14 02:38	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/15/14 02:38	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/15/14 02:38	1
Tetrachloroethene	**0.30**		0.14	0.068	ug/m3			02/15/14 02:38	1
Trichloroethene	**0.20**		0.11	0.027	ug/m3			02/15/14 02:38	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/15/14 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*02/15/14 02:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*02/15/14 02:38*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*02/15/14 02:38*	*1*

Surrogate Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB	12DCE	TOL						
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)						
320-5933-1 - DL	34001592 Dry Cleaners near SE wa	92	88	96						
320-5933-1	34001592 Dry Cleaners near SE wall towards back	97	87	103						
320-5933-2	34000176 Hallway between dry cleaners & restaurant	119	101	101						
320-5933-3	34001242 Restaurant near SE end of buffet	100	95	98						
320-5933-4	34000281 Upholstry shop middle of work area	100	95	96						
320-5933-4 - DL	34000281 Upholstry shop middle of work area	85	89	96						
320-5933-5	34001307 Roof SW upwind	93	95	97						
320-5933-6	34002023 Roof Central	95	93	99						
LCS 320-36321/5	Lab Control Sample	114	94	104						
LCS 320-36498/4	Lab Control Sample	111	86	103						
LCSD 320-36498/5	Lab Control Sample Dup	113	88	104						
MB 320-36321/7	Method Blank	86	101	96						
MB 320-36498/7	Method Blank	89	92	99						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 320-36321/7
Matrix: Air
Analysis Batch: 36321

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/14/14 16:29	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/14/14 16:29	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			02/14/14 16:29	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			02/14/14 16:29	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/14/14 16:29	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/14/14 16:29	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/14/14 16:29	1
Tetrachloroethene	ND		0.14	0.068	ug/m3			02/14/14 16:29	1
Trichloroethene	ND		0.11	0.027	ug/m3			02/14/14 16:29	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/14/14 16:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*02/14/14 16:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*02/14/14 16:29*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*02/14/14 16:29*	*1*

Lab Sample ID: LCS 320-36321/5
Matrix: Air
Analysis Batch: 36321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	1.25	1.53		ppb v/v		122	70 - 130
trans-1,2-Dichloroethene	1.22	1.44		ppb v/v		118	70 - 130
Tetrachloroethene	1.15	1.21		ppb v/v		105	70 - 130
Trichloroethene	1.21	1.29		ppb v/v		106	70 - 130
Vinyl chloride	1.18	1.33		ppb v/v		113	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	4.9	6.05		ug/m3		122	70 - 130
trans-1,2-Dichloroethene	4.9	5.71		ug/m3		118	70 - 130
Tetrachloroethene	7.8	8.22		ug/m3		105	70 - 130
Trichloroethene	6.5	6.91		ug/m3		106	70 - 130
Vinyl chloride	3.0	3.41		ug/m3		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 320-36498/7
Matrix: Air
Analysis Batch: 36498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.020	0.0023	ppb v/v			02/17/14 16:45	1

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 320-36498/7
Matrix: Air
Analysis Batch: 36498

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			02/17/14 16:45	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			02/17/14 16:45	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			02/17/14 16:45	1
Vinyl chloride	ND		0.020	0.0040	ppb v/v			02/17/14 16:45	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.079	0.0091	ug/m3			02/17/14 16:45	1
trans-1,2-Dichloroethene	ND		0.079	0.020	ug/m3			02/17/14 16:45	1
Tetrachloroethene	ND		0.14	0.068	ug/m3			02/17/14 16:45	1
Trichloroethene	ND		0.11	0.027	ug/m3			02/17/14 16:45	1
Vinyl chloride	ND		0.051	0.010	ug/m3			02/17/14 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*02/17/14 16:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*02/17/14 16:45*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*02/17/14 16:45*	*1*

Lab Sample ID: LCS 320-36498/4
Matrix: Air
Analysis Batch: 36498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	1.25	1.52		ppb v/v		122	70 - 130
trans-1,2-Dichloroethene	1.22	1.38		ppb v/v		113	70 - 130
Tetrachloroethene	1.15	1.13		ppb v/v		98	70 - 130
Trichloroethene	1.21	1.23		ppb v/v		101	70 - 130
Vinyl chloride	1.18	1.21		ppb v/v		102	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	4.9	6.02		ug/m3		122	70 - 130
trans-1,2-Dichloroethene	4.9	5.47		ug/m3		113	70 - 130
Tetrachloroethene	7.8	7.67		ug/m3		98	70 - 130
Trichloroethene	6.5	6.59		ug/m3		101	70 - 130
Vinyl chloride	3.0	3.08		ug/m3		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 320-36498/5
Matrix: Air
Analysis Batch: 36498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1.25	1.45		ppb v/v		116	70 - 130	5	25

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCSD 320-36498/5
Matrix: Air
Analysis Batch: 36498

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			1.22	1.32		ppb v/v		108	70 - 130	4	25
Tetrachloroethene			1.15	1.07		ppb v/v		93	70 - 130	5	25
Trichloroethene			1.21	1.17		ppb v/v		96	70 - 130	5	25
Vinyl chloride			1.18	1.17		ppb v/v		99	70 - 130	3	25

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			4.9	5.74		ug/m3		116	70 - 130	5	25
trans-1,2-Dichloroethene			4.9	5.23		ug/m3		108	70 - 130	4	25
Tetrachloroethene			7.8	7.27		ug/m3		93	70 - 130	5	25
Trichloroethene			6.5	6.27		ug/m3		96	70 - 130	5	25
Vinyl chloride			3.0	2.98		ug/m3		99	70 - 130	3	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

QC Association Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Air - GC/MS VOA

Analysis Batch: 36321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-5933-2	34000176 Hallway between dry cleaners & restaurant	Total/NA	Air	TO-15 SIM	
320-5933-3	34001242 Restaurant near SE end of buffet	Total/NA	Air	TO-15 SIM	
320-5933-4	34000281 Upholstry shop middle of work area	Total/NA	Air	TO-15 SIM	
320-5933-5	34001307 Roof SW upwind	Total/NA	Air	TO-15 SIM	
320-5933-6	34002023 Roof Central	Total/NA	Air	TO-15 SIM	
LCS 320-36321/5	Lab Control Sample	Total/NA	Air	TO-15 SIM	
MB 320-36321/7	Method Blank	Total/NA	Air	TO-15 SIM	

Analysis Batch: 36498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-5933-1	34001592 Dry Cleaners near SE wall towards back	Total/NA	Air	TO-15 SIM	
320-5933-1 - DL	34001592 Dry Cleaners near SE wall towards back	Total/NA	Air	TO-15 SIM	
320-5933-4 - DL	34000281 Upholstry shop middle of work area	Total/NA	Air	TO-15 SIM	
LCS 320-36498/4	Lab Control Sample	Total/NA	Air	TO-15 SIM	
LCSD 320-36498/5	Lab Control Sample Dup	Total/NA	Air	TO-15 SIM	
MB 320-36498/7	Method Blank	Total/NA	Air	TO-15 SIM	

Client Sample ID: 34001592 Dry Cleaners near SE wall towards back

Lab Sample ID: 320-5933-1

Date Collected: 01/31/14 11:55

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM	DL	8.3	100 mL	500 mL	36498	02/18/14 04:33	TAD	TAL SAC
Total/NA	Analysis	TO-15 SIM		1	830 mL	500 mL	36498	02/17/14 17:40	TAD	TAL SAC

Client Sample ID: 34000176 Hallway between dry cleaners & restaurant

Lab Sample ID: 320-5933-2

Date Collected: 01/31/14 12:58

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM		1	845 mL	500 mL	36321	02/14/14 22:55	TAD	TAL SAC

Client Sample ID: 34001242 Restaurant near SE end of buffet

Lab Sample ID: 320-5933-3

Date Collected: 01/31/14 12:21

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM		1	810 mL	500 mL	36321	02/14/14 23:52	TAD	TAL SAC

Client Sample ID: 34000281 Upholstry shop middle of work area

Lab Sample ID: 320-5933-4

Date Collected: 01/31/14 12:00

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM		1	880 mL	500 mL	36321	02/15/14 00:47	TAD	TAL SAC
Total/NA	Analysis	TO-15 SIM	DL	88	10 mL	500 mL	36498	02/17/14 18:28	TAD	TAL SAC

Client Sample ID: 34001307 Roof SW upwind

Lab Sample ID: 320-5933-5

Date Collected: 01/31/14 12:32

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM		1	845 mL	500 mL	36321	02/15/14 01:43	TAD	TAL SAC

Client Sample ID: 34002023 Roof Central

Lab Sample ID: 320-5933-6

Date Collected: 01/31/14 12:37

Matrix: Air

Date Received: 02/03/14 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15 SIM		1	940 mL	500 mL	36321	02/15/14 02:38	TAD	TAL SAC

Lab Chronicle

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	03-31-14
Alaska (UST)	State Program	10	UST-055	02-28-14 *
Arizona	State Program	9	AZ0708	08-11-14
Arkansas DEQ	State Program	6	88-0691	06-17-14
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-14
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-14
Guam	State Program	9	N/A	08-31-14
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-14
Louisiana	NELAP	6	30612	06-30-14
Michigan	State Program	5	9947	02-28-14 *
Nebraska	State Program	7	NE-OS-22-13	02-28-14 *
Nevada	State Program	9	CA44	07-31-14
New Jersey	NELAP	2	CA005	06-30-14
New York	NELAP	2	11666	03-31-14
Northern Mariana Islands	State Program	9	MP0007	02-28-14 *
Oregon	NELAP	10	CA200005	01-29-15
Pennsylvania	NELAP	3	68-01272	03-31-14
South Carolina	State Program	4	87014	06-30-14
Texas	NELAP	6	T104704399-08-TX	05-31-14
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-14
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-14
Wyoming	State Program	8	8TMS-Q	02-28-14 *

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Method	Method Description	Protocol	Laboratory
TO-15 SIM	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA-21	TAL SAC

Protocol References:

EPA-21 = "Compendium Of Methods For The Determination Of Toxic Organic Compounds In Ambient Air", Second Edition, EPA/625/R-96/010B, January 1999

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Terracon Consultants, Inc
Project/Site: Indoor Air

TestAmerica Job ID: 320-5933-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-5933-1	34001592 Dry Cleaners near SE wall towards back	Air	01/31/14 11:55	02/03/14 09:15
320-5933-2	34000176 Hallway between dry cleaners & restaurant	Air	01/31/14 12:58	02/03/14 09:15
320-5933-3	34001242 Restaurant near SE end of buffet	Air	01/31/14 12:21	02/03/14 09:15
320-5933-4	34000281 Upholstry shop middle of work area	Air	01/31/14 12:00	02/03/14 09:15
320-5933-5	34001307 Roof SW upwind	Air	01/31/14 12:32	02/03/14 09:15
320-5933-6	34002023 Roof Central	Air	01/31/14 12:37	02/03/14 09:15

>>> Select a Laboratory <<<

Test America Laboratories, Inc
880 Riverside Pkwy
West Sacramento, CA 95605
916-373-5600

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	Project Manager: Dave Ufferfilge	Samples Collected By:	COC No.
Company Name: Terracon	Phone: 510-923-1661		____ of ____ COCs
Address: 1260 45th St	Email: dufferfilge@terracon.com, masaldate@terra		
City/State/Zip: Emeryville, CA 94608			For Lab Use Only:
Phone: 510-923-1661	Site Contact: Dave Ufferfilge		Walk-in Client:
FAX:	TA Contact:		Lab Sampling:
Project Name: Bonkowski Alameda Vapor	Anaylsis Turnaround Time		Job / SDG No.
Site/Location: 1534 Park, Alameda, CA	Standard (Specific):		(See below for Add'l Items)
P O #	Rush (Specifiy):		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)"	Canister Vacuum in Field, "Hg (Stop)"	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type Soil Gas	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
34001592 Dry Cleaners near SE wall towards the back	1/30-1/31/	11.01AM	11 55AM	-0.3	0	7060	34001592															Hold after analysizing for isotope anal
34000176 Hallway between dry cleaners& restaurant		11:07AM	12:58PM	-0.3	0	7050	34000176															
34001242 Restaurant near SE end of buffet		11:33AM	12:21PM	-0.3	0	7051	34001242															
34000281 Upholstry shop middle of work area		11.24AM	12:00PM	-0.3	0	7589	34000281															
34001307 Roof SW upwind		12.11AM	12:32PM	-0.3	0	7600	34001307															
34002023 Roof central		12.09AM	12:37PM	-0.3	-0.02	7153	34002023															

320-5933 Chain of Custody

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Special Instructions/QC Requirements & Comments: Please hold the samples after analysizing for isotope analysis. If there are any questions please call Dave Ufferfilge at 303-590-5944

Samples Shipped by: Michael Saldate	Date / Time: 1/31/14 5:30	Samples Received by:	
Samples Relinquished by:	Date / Time: 1/31/14 5:45	Received by: Tom Nelson	2-3-14 915
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 1.1, dated 05/14/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34001592	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	14.93	02/04/14	AO
FINAL PRESSURE (PSIA)	24.81	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.66			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
2/14/2014	MS1	

Canister DF = 1.66 X Load DF = 0.6024096 (LVf (mLs) 500, LVi (mLs) 830) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1

Date	Instr.	File #
2/17/2014	MS1	

Canister DF = 1.66 X Load DF = 0.6024096 (LVf (mLs) 500, LVi (mLs) 830) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1

Date	Instr.	File #
2/17/2014	MS1	

Canister DF = 1.66 X Load DF = 5 (LVf (mLs) 500, LVi (mLs) 100) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 8.3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 2

Client/Project:		VFR ID:		
Canister Serial #:	34000176	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	14.50	02/04/14	AO
FINAL PRESSURE (PSIA)	24.56	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.69			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
2/14/2014	MS1	

Canister DF = 1.69 X Load DF = 0.591716 (LVf (mLs) 500, LVi (mLs) 845) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1

Date	Instr.	File #

Canister DF = X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 3

Client/Project:		VFR ID:		
Canister Serial #:	34001242	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	14.73	02/04/14	AO
FINAL PRESSURE (PSIA)	23.80	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.62			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
2/14/2014	MS1	

Canister DF = 1.62 X Load DF = 0.617284 (LVf (mLs) 500, LVi (mLs) 810) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1

Date	Instr.	File #

Canister DF = X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 4

Client/Project:		VFR ID:		
Canister Serial #:	34000281	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	14.07	02/04/14	AO
FINAL PRESSURE (PSIA)	24.72	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.76			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
2/14/2014	MS1	

Canister DF = 1.76 X Load DF = 0.5681818 (LVf (mLs) 500, LVi (mLs) 880) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1

Date	Instr.	File #
2/17/2014	MS1	

Canister DF = 1.76 X Load DF = 50 (LVf (mLs) 500, LVi (mLs) 10) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 88

Date	Instr.	File #

Canister DF = X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 5

Client/Project:		VFR ID:		
Canister Serial #:	34001307	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	14.63	02/04/14	AO
FINAL PRESSURE (PSIA)	24.66	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.69			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							2/14/2014	MS1			
Canister DF =	1.69	X	Load DF =	0.591716	X	Bag DF =	1	=	FINAL DF 1		
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	845		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =		X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =		X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-5933
Sample # 6

Client/Project:		VFR ID:		
Canister Serial #:	34002023	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8	01/14/14	JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	13.24	02/04/14	AO
FINAL PRESSURE (PSIA)	24.95	02/04/14	AO
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.88			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
					#DIV/0!
					#DIV/0!
					#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							2/14/2014	MS1			
Canister DF =	1.88	X	Load DF =	0.5319149	X	Bag DF =	1	=	FINAL DF 1		
			LVf (mLs)	500		BVf (mLs)					
			LVi (mLs)	940		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =		X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =		X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

Login Sample Receipt Checklist

Client: Terracon Consultants, Inc

Job Number: 320-5933-1

Login Number: 5933

List Source: TestAmerica Sacramento

List Number: 1

Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification
Individual Certification

Certification Type: TO-15

Date Cleaned/Batch ID: 012214 320-5807

Date of QC: 01/22/14

320-5807 Chain of Custody

Canister ID	Filename	Canister ID	Filename
340012412	MS10122215		
1592	MS10122212		
1307	MS10122222		
0281	MS10122217		
0976	MS10122214		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

Ana Mata
1st level Reviewed By:

01/29/14
Date:

Murray
2nd level Reviewed By:

1/28/2014
Date:

Q:\FORMS\QA-821 IND CAN QC 20130729.DOC
QA-821

ERS 7/29/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification
Individual Certification

Certification Type: TO-15

Date Cleaned/Batch ID: B012114 320-5802

Date of QC: 01-23-14

320-5802 Chain of Custody

Canister ID	Filename	Canister ID	Filename
3400183	MS1012314		
1658	MS1012315		
2023	MS1012316		
1511	MS1012317		
0571	~~MS1012318~~		
0049	MS1012319		
0135	MS1012320		
1259	—		
0472	—		
0300	—		
0562	—		
0442	—		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

1st level Reviewed By: [signature] Date: 02/04/14

2nd level Reviewed By: [signature] Date: 2/6/14

Q:\FORMS\QA-821 IND CAN QC 20130729.DOC
QA-821

ERS 7/29/2013

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5802-1

SDG No.:

Client Sample ID: 34001658 Lab Sample ID: 320-5802-2

Matrix: Air Lab File ID: MS1012315.d

Analysis Method: TO-15 SIM Date Collected: 01/21/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/23/2014 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34556 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
71-43-2	Benzene	ND		0.020
67-66-3	Chloroform	ND		0.020
75-34-3	1,1-Dichloroethane	ND		0.020
107-06-2	1,2-Dichloroethane	ND		0.020
75-35-4	1,1-Dichloroethene	ND		0.020
156-59-2	cis-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
71-55-6	1,1,1-Trichloroethane	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012315.d
Lims ID: 320-5802-A-2 Lab Sample ID: 320-5802-2
Client ID: 34001658
Sample Type: Client
Inject. Date: 23-Jan-2014 23:51:30 ALS Bottle#: 13 Worklist Smp#: 16
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5802-A-2
Misc. Info.: 1000mL; Cancert- 34001658
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 07-Feb-2014 12:16:18 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK008

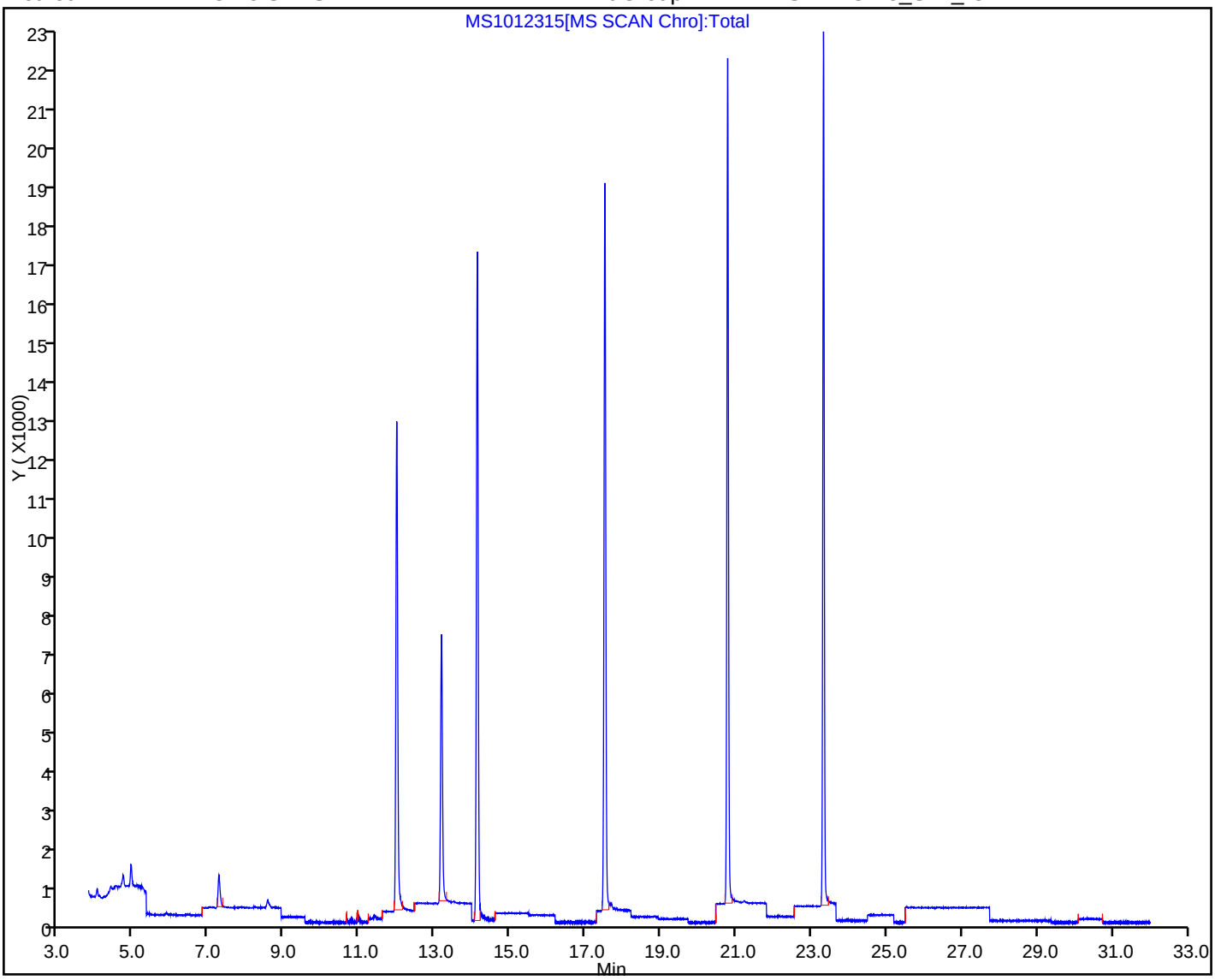
First Level Reviewer: ortizam Date: 25-Jan-2014 13:46:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.980	11.984	-0.004	100	14258	1.94	
* 2 1,4-Difluorobenzene	114	14.121	14.119	0.002	100	43495	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.774	20.773	0.001	100	38787	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	81	13023	2.18	
$ 5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	100	23479	1.96	
$ 6 4-Bromofluorobenzene (Surr)	95	23.320	23.317	0.003	98	17995	1.71	

Report Date: 07-Feb-2014 12:16:24 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012315.d				
Injection Date:	23-Jan-2014 23:51:30	Instrument ID:	ATMS1		
Lims ID:	320-5802-A-2	Lab Sample ID:	320-5802-2		
Client ID:	34001658				
Operator ID:	AJS	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5802-1

SDG No.:

Client Sample ID: 34002023 Lab Sample ID: 320-5802-3

Matrix: Air Lab File ID: MS1012316.d

Analysis Method: TO-15 SIM Date Collected: 01/21/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/24/2014 00:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34556 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
71-43-2	Benzene	ND		0.020
67-66-3	Chloroform	ND		0.020
75-34-3	1,1-Dichloroethane	ND		0.020
107-06-2	1,2-Dichloroethane	ND		0.020
75-35-4	1,1-Dichloroethene	ND		0.020
156-59-2	cis-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
71-55-6	1,1,1-Trichloroethane	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	87		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012316.d
Lims ID: 320-5802-A-3 Lab Sample ID: 320-5802-3
Client ID: 34002023
Sample Type: Client
Inject. Date: 24-Jan-2014 00:46:30 ALS Bottle#: 14 Worklist Smp#: 17
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5802-A-3
Misc. Info.: 1000mL; Cancert- 34002023
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 07-Feb-2014 12:24:07 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK025

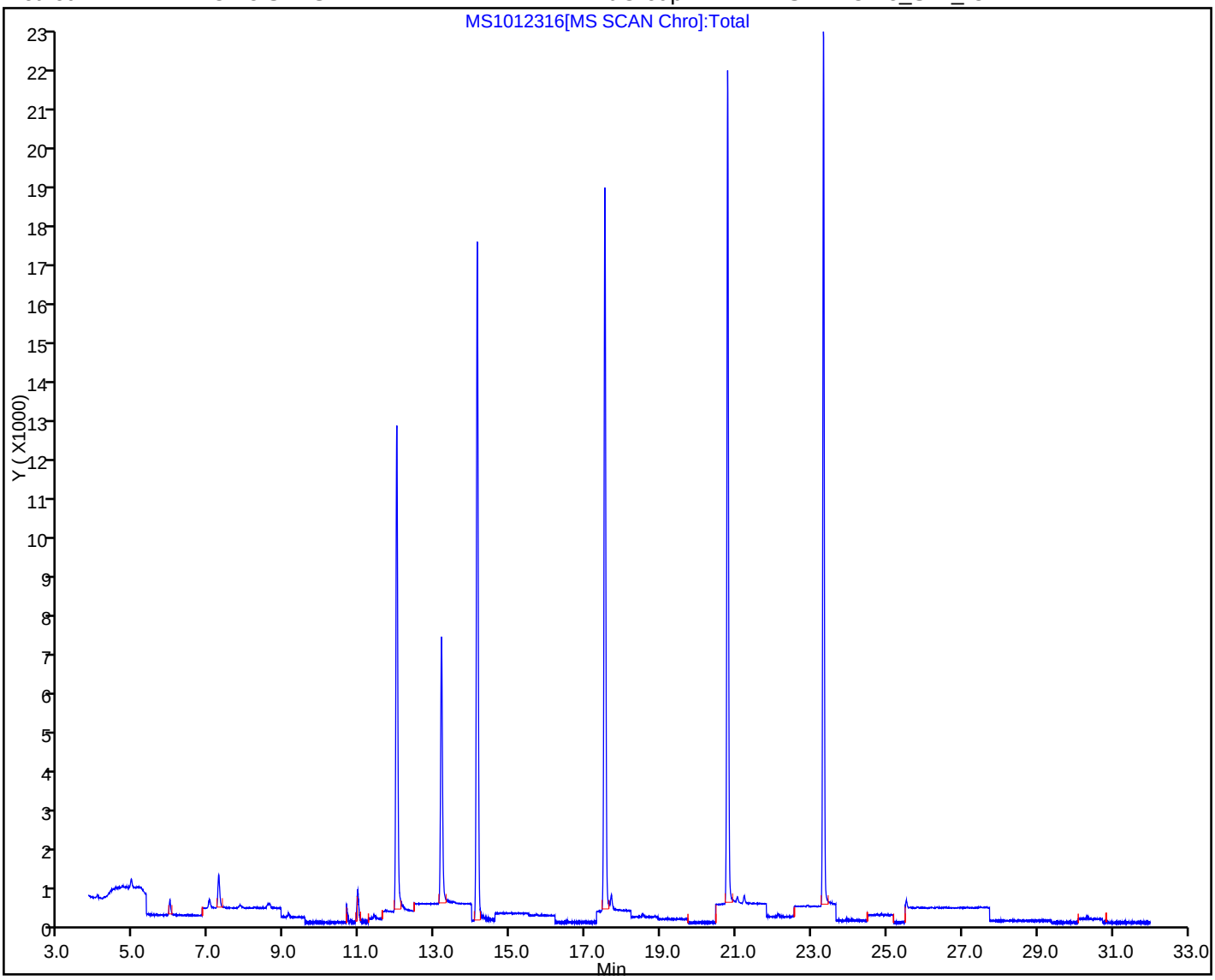
	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	130	11.980	11.984	-0.004	100	14462	1.94	
*	2 1,4-Difluorobenzene	114	14.119	14.119	0.0	100	45113	2.00	
*	3 Chlorobenzene-d5 (IS)	117	20.772	20.773	-0.001	100	39259	2.00	
$	4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	82	12872	2.08	
$	5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	100	23739	1.91	
$	6 4-Bromofluorobenzene (Surr)	95	23.318	23.317	0.001	99	18562	1.74	

Report Date: 13-Feb-2014 13:13:42 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012316.d

Injection Date:	24-Jan-2014 00:46:30	Instrument ID:	ATMS1		
Lims ID:	320-5802-A-3	Lab Sample ID:	320-5802-3		
Client ID:	34002023				
Operator ID:	AJS	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5802-1

SDG No.:

Client Sample ID: 34001511 Lab Sample ID: 320-5802-4

Matrix: Air Lab File ID: MS1012317.d

Analysis Method: TO-15 SIM Date Collected: 01/21/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/24/2014 01:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34556 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
71-43-2	Benzene	ND		0.020
67-66-3	Chloroform	ND		0.020
75-34-3	1,1-Dichloroethane	ND		0.020
107-06-2	1,2-Dichloroethane	ND		0.020
75-35-4	1,1-Dichloroethene	ND		0.020
156-59-2	cis-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
71-55-6	1,1,1-Trichloroethane	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012317.d
Lims ID: 320-5802-A-4 Lab Sample ID: 320-5802-4
Client ID: 34001511
Sample Type: Client
Inject. Date: 24-Jan-2014 01:42:30 ALS Bottle#: 15 Worklist Smp#: 18
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5802-A-4
Misc. Info.: 1000mL; Cancert- 34001511
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 07-Feb-2014 12:16:18 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK008

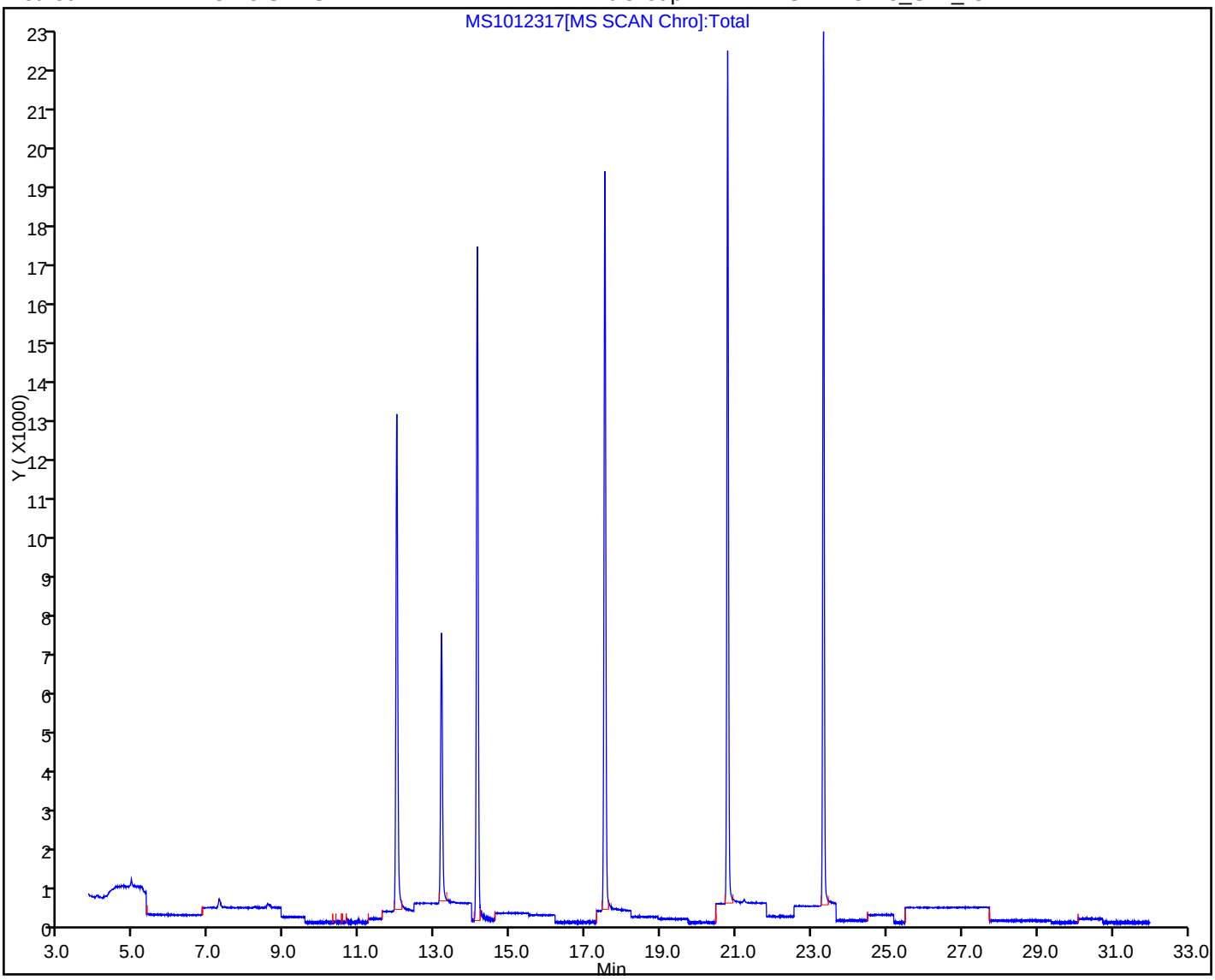
	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	130	11.980	11.984	-0.004	100	14373	1.94	
*	2 1,4-Difluorobenzene	114	14.121	14.119	0.002	100	44021	2.00	
*	3 Chlorobenzene-d5 (IS)	117	20.773	20.773	0.0	100	38910	2.00	
$	4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	86	12917	2.14	
$	5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	100	23794	1.96	
$	6 4-Bromofluorobenzene (Surr)	95	23.317	23.317	0.0	100	18176	1.72	

Report Date: 07-Feb-2014 12:16:25 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012317.d

Injection Date:	24-Jan-2014 01:42:30	Instrument ID:	ATMS1		
Lims ID:	320-5802-A-4	Lab Sample ID:	320-5802-4		
Client ID:	34001511				
Operator ID:	AJS	ALS Bottle#:	15	Worklist Smp#:	18
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5802-1

SDG No.:

Client Sample ID: 34000049 Lab Sample ID: 320-5802-6

Matrix: Air Lab File ID: MS1012319.d

Analysis Method: TO-15 SIM Date Collected: 01/21/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/24/2014 03:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34556 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
71-43-2	Benzene	ND		0.020
67-66-3	Chloroform	ND		0.020
75-34-3	1,1-Dichloroethane	ND		0.020
107-06-2	1,2-Dichloroethane	ND		0.020
75-35-4	1,1-Dichloroethene	ND		0.020
156-59-2	cis-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
71-55-6	1,1,1-Trichloroethane	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	89		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012319.d
Lims ID: 320-5802-A-6 Lab Sample ID: 320-5802-6
Client ID: 34000049
Sample Type: Client
Inject. Date: 24-Jan-2014 03:35:30 ALS Bottle#: 1 Worklist Smp#: 20
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5802-A-6
Misc. Info.: 1000mL; Cancert- 34000049
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 07-Feb-2014 12:16:18 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK008

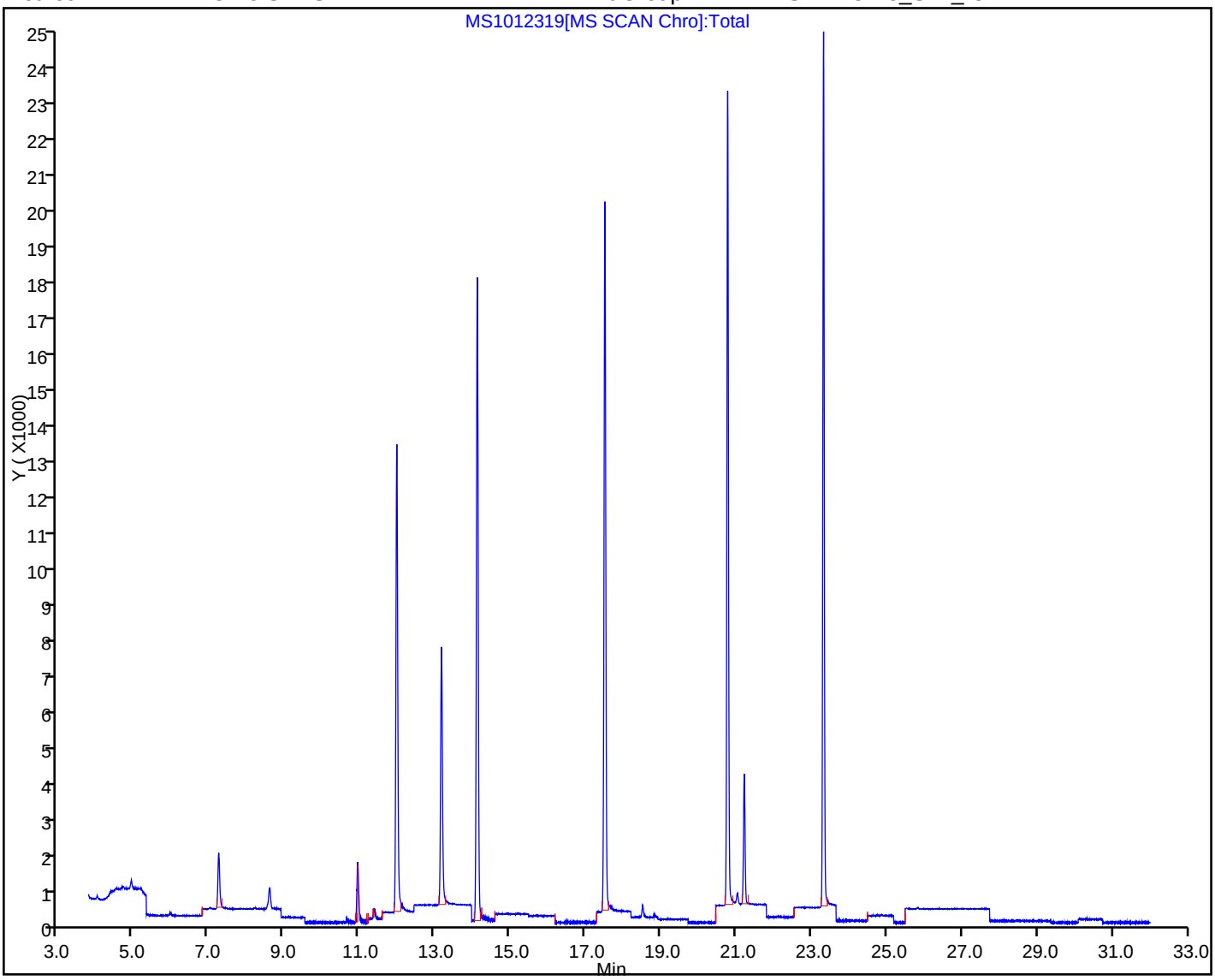
First Level Reviewer: shardaa Date: 24-Jan-2014 10:25:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.980	11.984	-0.004	100	14923	1.94	
* 2 1,4-Difluorobenzene	114	14.118	14.119	-0.001	100	45921	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.773	20.773	0.0	100	41132	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	86	13551	2.15	
$ 5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	100	24861	1.96	
$ 6 4-Bromofluorobenzene (Surr)	95	23.322	23.317	0.005	98	19876	1.78	

Report Date: 07-Feb-2014 12:16:26 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012319.d				
Injection Date:	24-Jan-2014 03:35:30	Instrument ID:	ATMS1		
Lims ID:	320-5802-A-6	Lab Sample ID:	320-5802-6		
Client ID:	34000049				
Operator ID:	AJS	ALS Bottle#:	1	Worklist Smp#:	20
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5802-1

SDG No.:

Client Sample ID: 34000135 Lab Sample ID: 320-5802-7

Matrix: Air Lab File ID: MS1012320.d

Analysis Method: TO-15 SIM Date Collected: 01/21/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/24/2014 04:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34556 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
71-43-2	Benzene	ND		0.020
67-66-3	Chloroform	ND		0.020
75-34-3	1,1-Dichloroethane	ND		0.020
107-06-2	1,2-Dichloroethane	ND		0.020
75-35-4	1,1-Dichloroethene	ND		0.020
156-59-2	cis-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
71-55-6	1,1,1-Trichloroethane	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-130
2037-26-5	Toluene-d8 (Surr)	99		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012320.d
Lims ID: 320-5802-A-7 Lab Sample ID: 320-5802-7
Client ID: 34000135
Sample Type: Client
Inject. Date: 24-Jan-2014 04:31:30 ALS Bottle#: 2 Worklist Smp#: 21
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5802-A-7
Misc. Info.: 1000mL; Cancert- 34000135
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 07-Feb-2014 12:16:18 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK008

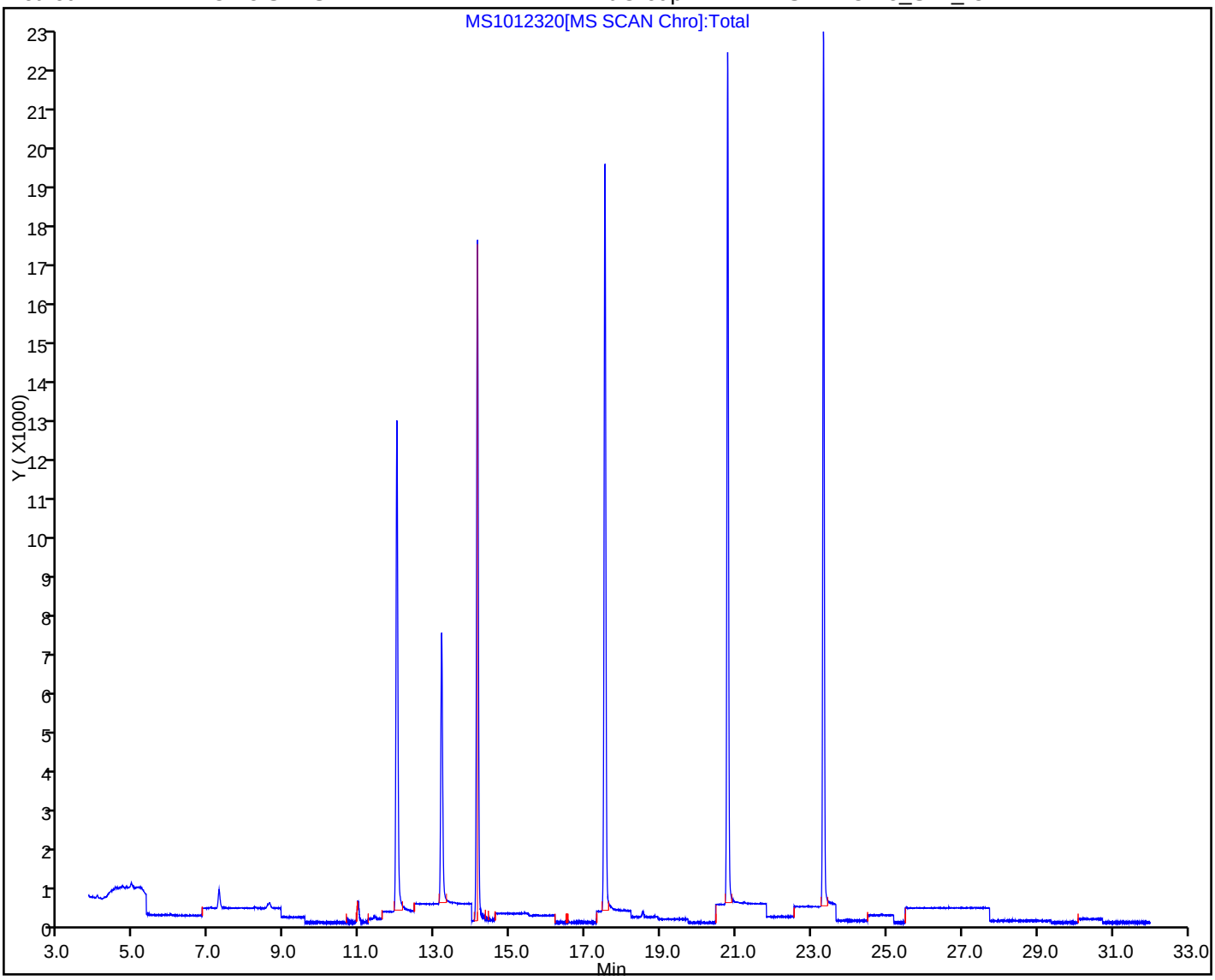
	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	130	11.984	11.984	0.0	100	14773	1.94	
*	2 1,4-Difluorobenzene	114	14.121	14.119	0.002	100	45455	2.00	
*	3 Chlorobenzene-d5 (IS)	117	20.773	20.773	0.0	100	40563	2.00	
$	4 1,2-Dichloroethane-d4 (Surr)	65	13.173	13.168	0.005	70	13276	2.13	
$	5 Toluene-d8 (Surr)	100	17.514	17.510	0.004	100	24781	1.98	
$	6 4-Bromofluorobenzene (Surr)	95	23.319	23.317	0.002	99	18627	1.69	

Report Date: 07-Feb-2014 12:16:26 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS1\20140123-10103.b\MS1012320.d

Injection Date:	24-Jan-2014 04:31:30	Instrument ID:	ATMS1		
Lims ID:	320-5802-A-7	Lab Sample ID:	320-5802-7		
Client ID:	34000135				
Operator ID:	AJS	ALS Bottle#:	2	Worklist Smp#:	21
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5807-1

SDG No.:

Client Sample ID: 34001242 Lab Sample ID: 320-5807-1

Matrix: Air Lab File ID: MS1012215.d

Analysis Method: TO-15 SIM Date Collected: 01/22/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/22/2014 23:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34471 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
156-59-2	cis-1,2-Dichloroethene	ND		0.020
156-60-5	trans-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012215.d
Lims ID: 320-5807-A-1 Lab Sample ID: 320-5807-1
Client ID: 34001242
Sample Type: Client
Inject. Date: 22-Jan-2014 23:46:30 ALS Bottle#: 11 Worklist Smp#: 16
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5781-A-5
Misc. Info.: 1000mL; Cancert- 34001242
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 28-Jan-2014 10:03:02 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK053

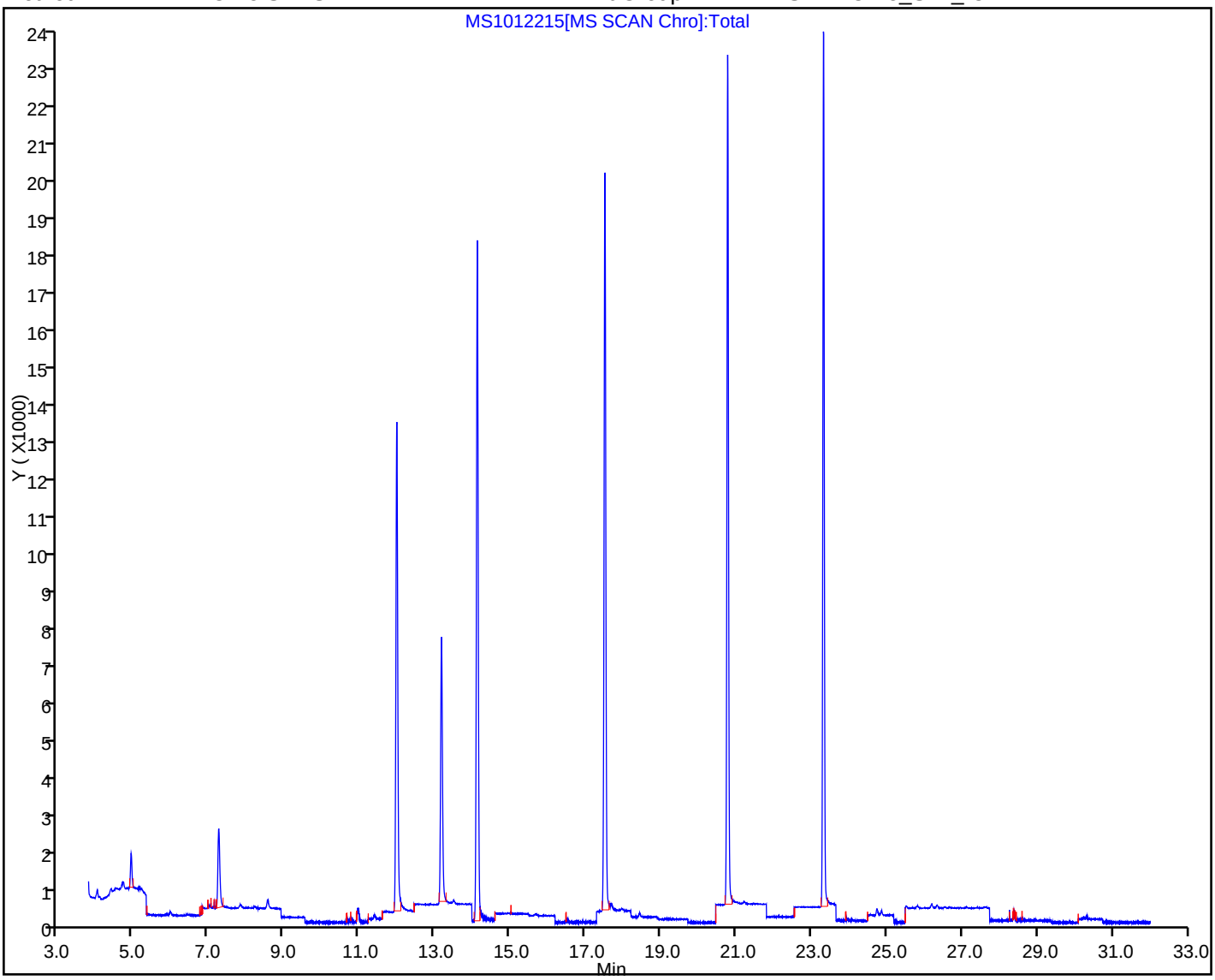
First Level Reviewer: ortizam Date: 28-Jan-2014 10:04:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.980	11.980	0.0	9	15096	1.94	
* 2 1,4-Difluorobenzene	114	14.120	14.118	0.002	1	46309	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.773	20.772	0.001	1	41233	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	1	13426	2.11	
$ 5 Toluene-d8 (Surr)	100	17.513	17.510	0.003	1	25089	1.96	
$ 6 4-Bromofluorobenzene (Surr)	95	23.319	23.319	0.0	14	19308	1.73	

Report Date: 28-Jan-2014 10:04:39 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012215.d				
Injection Date:	22-Jan-2014 23:46:30	Instrument ID:	ATMS1		
Lims ID:	320-5807-A-1	Lab Sample ID:	320-5807-1		
Client ID:	34001242				
Operator ID:	AJS	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5807-1

SDG No.:

Client Sample ID: 34001592 Lab Sample ID: 320-5807-2

Matrix: Air Lab File ID: MS1012212.d

Analysis Method: TO-15 SIM Date Collected: 01/22/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/22/2014 20:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34471 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
156-59-2	cis-1,2-Dichloroethene	ND		0.020
156-60-5	trans-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	81		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		70-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012212.d
Lims ID: 320-5807-A-2 Lab Sample ID: 320-5807-2
Client ID: 34001592
Sample Type: Client
Inject. Date: 22-Jan-2014 20:59:30 ALS Bottle#: 8 Worklist Smp#: 13
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5781-A-2
Misc. Info.: 1000mL; Cancert- 34001592
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 28-Jan-2014 10:03:02 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK053

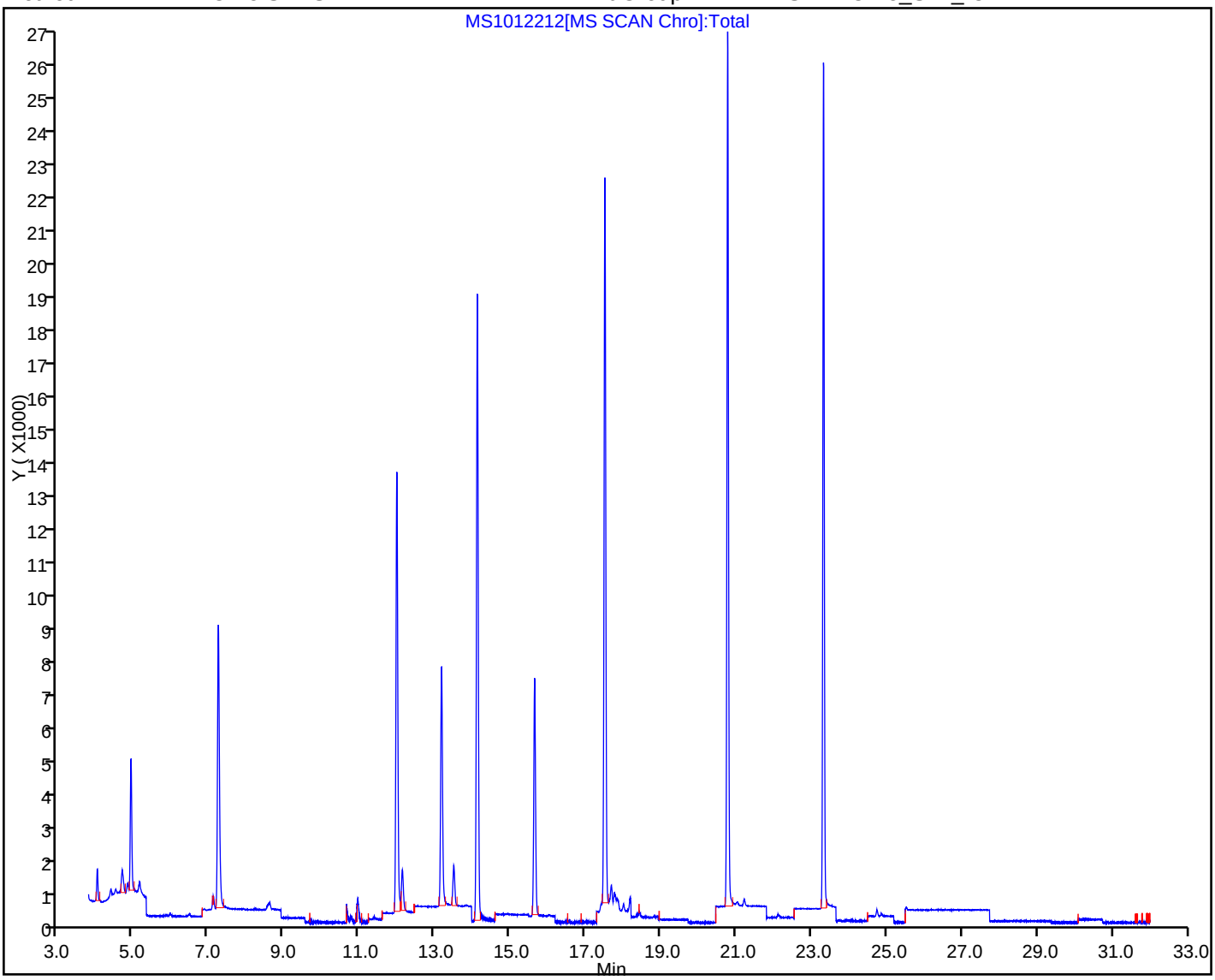
First Level Reviewer: ortizam Date: 28-Jan-2014 10:03:52

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.984	11.980	0.004	8	15267	1.94	
* 2 1,4-Difluorobenzene	114	14.119	14.118	0.001	1	48191	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.773	20.772	0.001	1	47277	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	1	13570	2.05	
$ 5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	1	27915	2.10	
$ 6 4-Bromofluorobenzene (Surr)	95	23.319	23.319	0.0	14	20929	1.63	

Report Date: 28-Jan-2014 10:03:52 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012212.d				
Injection Date:	22-Jan-2014 20:59:30	Instrument ID:	ATMS1		
Lims ID:	320-5807-A-2	Lab Sample ID:	320-5807-2		
Client ID:	34001592				
Operator ID:	AJS	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5807-1

SDG No.:

Client Sample ID: 34001307 Lab Sample ID: 320-5807-3

Matrix: Air Lab File ID: MS1012222.d

Analysis Method: TO-15 SIM Date Collected: 01/22/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/23/2014 06:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34471 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
156-59-2	cis-1,2-Dichloroethene	ND		0.020
156-60-5	trans-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	88		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012222.d
Lims ID: 320-5807-A-3 Lab Sample ID: 320-5807-3
Client ID: 34001307
Sample Type: Client
Inject. Date: 23-Jan-2014 06:17:30 ALS Bottle#: 2 Worklist Smp#: 23
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5781-A-12
Misc. Info.: 1000mL; Cancert- 34001307
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 28-Jan-2014 10:03:02 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK053

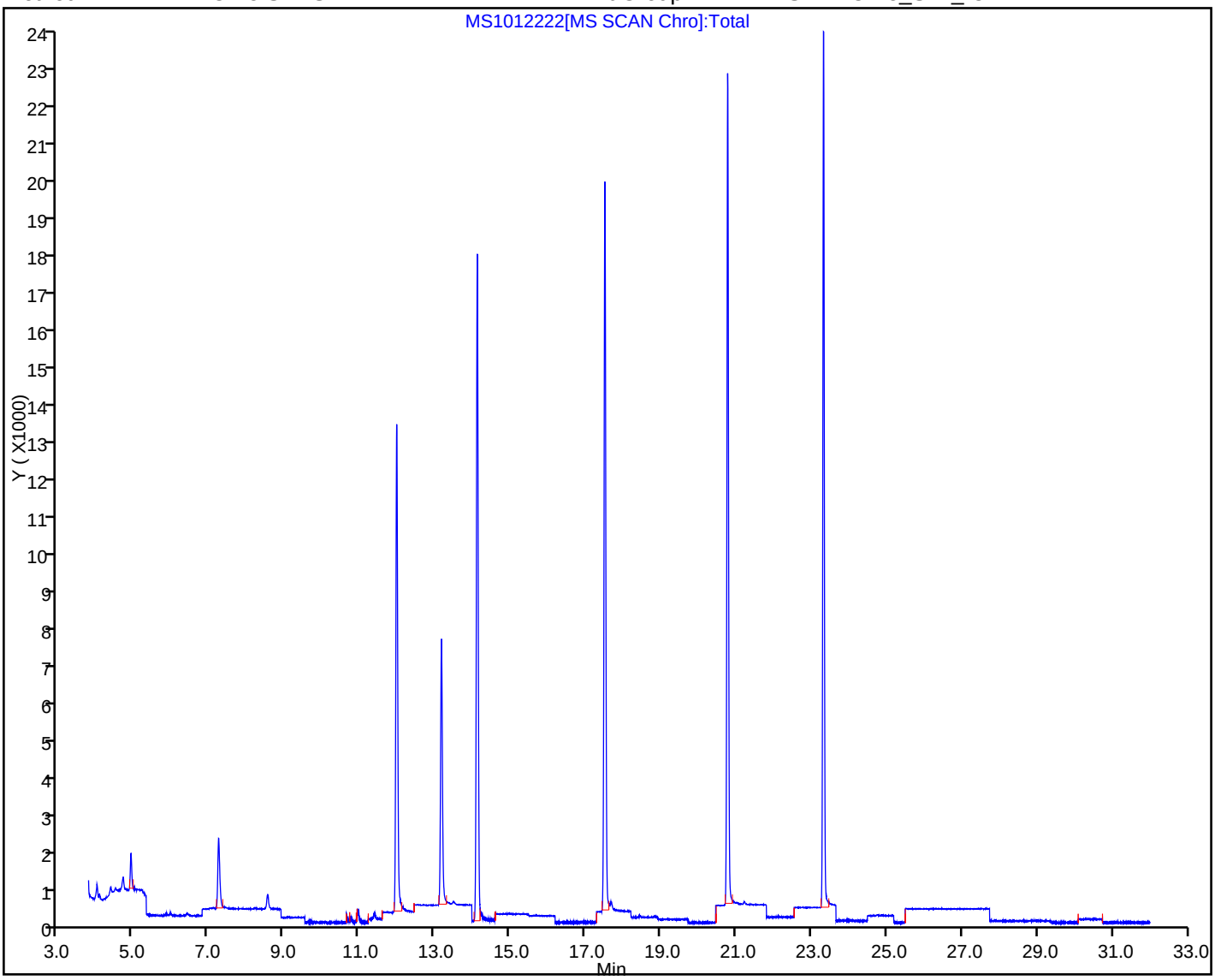
First Level Reviewer: ortizam Date: 28-Jan-2014 10:04:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.976	11.980	-0.004	9	15119	1.94	
* 2 1,4-Difluorobenzene	114	14.121	14.118	0.003	1	47272	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.773	20.772	0.001	1	41645	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	1	13812	2.13	
$ 5 Toluene-d8 (Surr)	100	17.509	17.510	-0.001	1	25498	1.96	
$ 6 4-Bromofluorobenzene (Surr)	95	23.319	23.319	0.0	14	19910	1.76	

Report Date: 28-Jan-2014 10:04:57 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012222.d				
Injection Date:	23-Jan-2014 06:17:30	Instrument ID:	ATMS1		
Lims ID:	320-5807-A-3	Lab Sample ID:	320-5807-3		
Client ID:	34001307				
Operator ID:	AJS	ALS Bottle#:	2	Worklist Smp#:	23
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5807-1

SDG No.:

Client Sample ID: 34000281 Lab Sample ID: 320-5807-4

Matrix: Air Lab File ID: MS1012217.d

Analysis Method: TO-15 SIM Date Collected: 01/22/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/23/2014 01:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34471 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
156-59-2	cis-1,2-Dichloroethene	ND		0.020
156-60-5	trans-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-130
2037-26-5	Toluene-d8 (Surr)	99		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012217.d
Lims ID: 320-5807-A-4 Lab Sample ID: 320-5807-4
Client ID: 34000281
Sample Type: Client
Inject. Date: 23-Jan-2014 01:36:30 ALS Bottle#: 13 Worklist Smp#: 18
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5781-A-7
Misc. Info.: 1000mL; Cancert- 34000281
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 28-Jan-2014 10:03:02 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK053

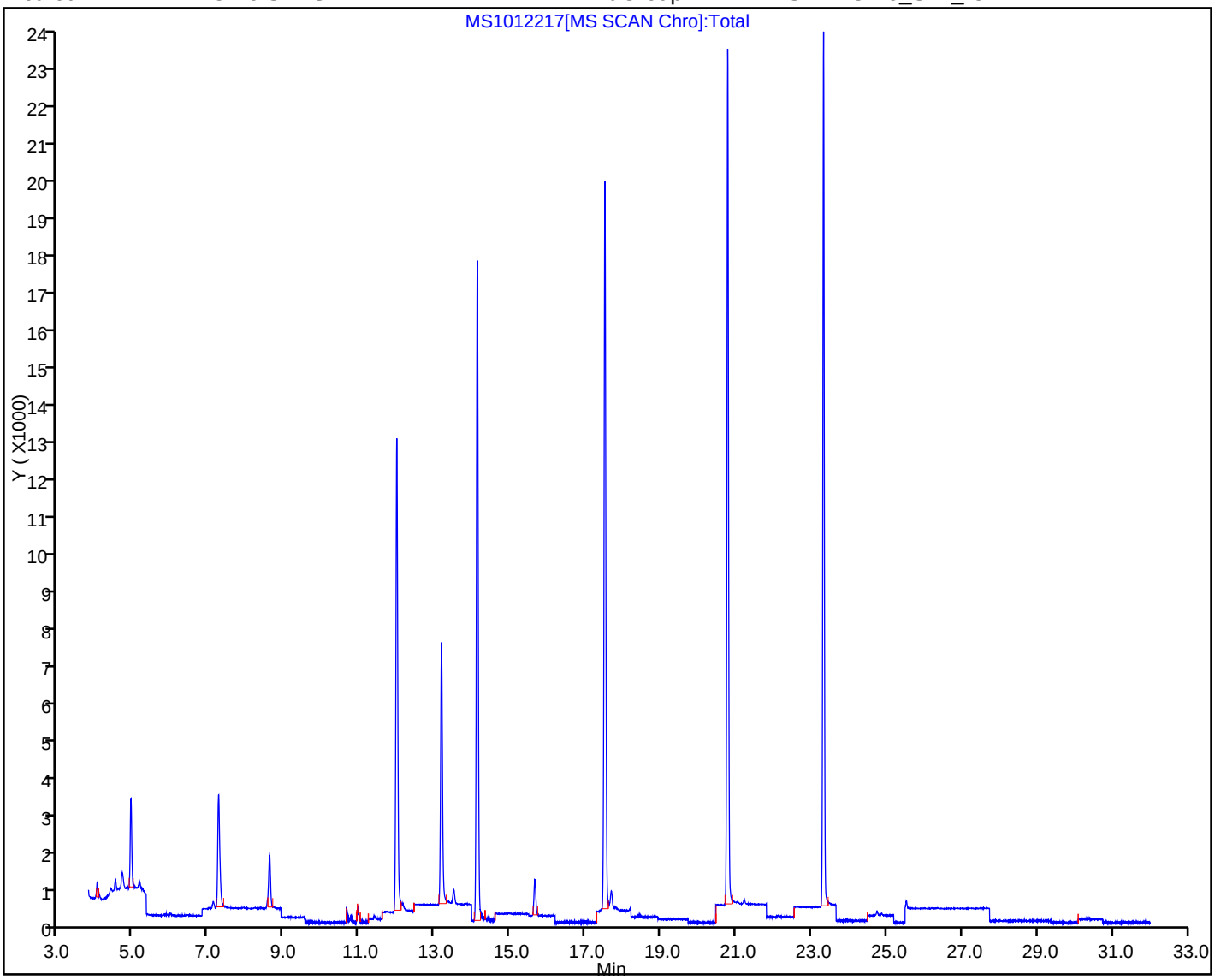
First Level Reviewer: ortizam Date: 28-Jan-2014 10:05:23

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
*	1 Chlorobromomethane (IS)	130	11.980	11.980	0.0	9	14602	1.94	
*	2 1,4-Difluorobenzene	114	14.119	14.118	0.001	1	45499	2.00	
*	3 Chlorobenzene-d5 (IS)	117	20.773	20.772	0.001	1	41654	2.00	
$	4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	1	13321	2.13	
$	5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	1	24944	1.99	
$	6 4-Bromofluorobenzene (Surr)	95	23.317	23.319	-0.002	14	19174	1.70	

Report Date: 28-Jan-2014 10:05:23 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012217.d				
Injection Date:	23-Jan-2014 01:36:30	Instrument ID:	ATMS1		
Lims ID:	320-5807-A-4	Lab Sample ID:	320-5807-4		
Client ID:	34000281				
Operator ID:	AJS	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-5807-1

SDG No.:

Client Sample ID: 34000176 Lab Sample ID: 320-5807-5

Matrix: Air Lab File ID: MS1012214.d

Analysis Method: TO-15 SIM Date Collected: 01/22/2014 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 01/22/2014 22:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 34471 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL
156-59-2	cis-1,2-Dichloroethene	ND		0.020
156-60-5	trans-1,2-Dichloroethene	ND		0.020
127-18-4	Tetrachloroethene	ND		0.020
79-01-6	Trichloroethene	ND		0.020
75-01-4	Vinyl chloride	ND		0.020

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	86		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012214.d
Lims ID: 320-5807-A-5 Lab Sample ID: 320-5807-5
Client ID: 34000176
Sample Type: Client
Inject. Date: 22-Jan-2014 22:50:30 ALS Bottle#: 10 Worklist Smp#: 15
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-5781-A-4
Misc. Info.: 1000mL; Cancert- 34000176
Operator ID: AJS Instrument ID: ATMS1

Method: \\SACCHROM\ChromData\ATMS1\20140122-10073.b\TO-15 SIM SIM.m
Limit Group: MSA - TO-15_SIM_ICAL
Last Update: 28-Jan-2014 10:03:02 Calib Date: 14-Jan-2014 05:56:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\SACCHROM\ChromData\ATMS1\20140113-9866.b\MS1011314.d

Column 1 : Det: MS SCAN
Process Host: XAWRK053

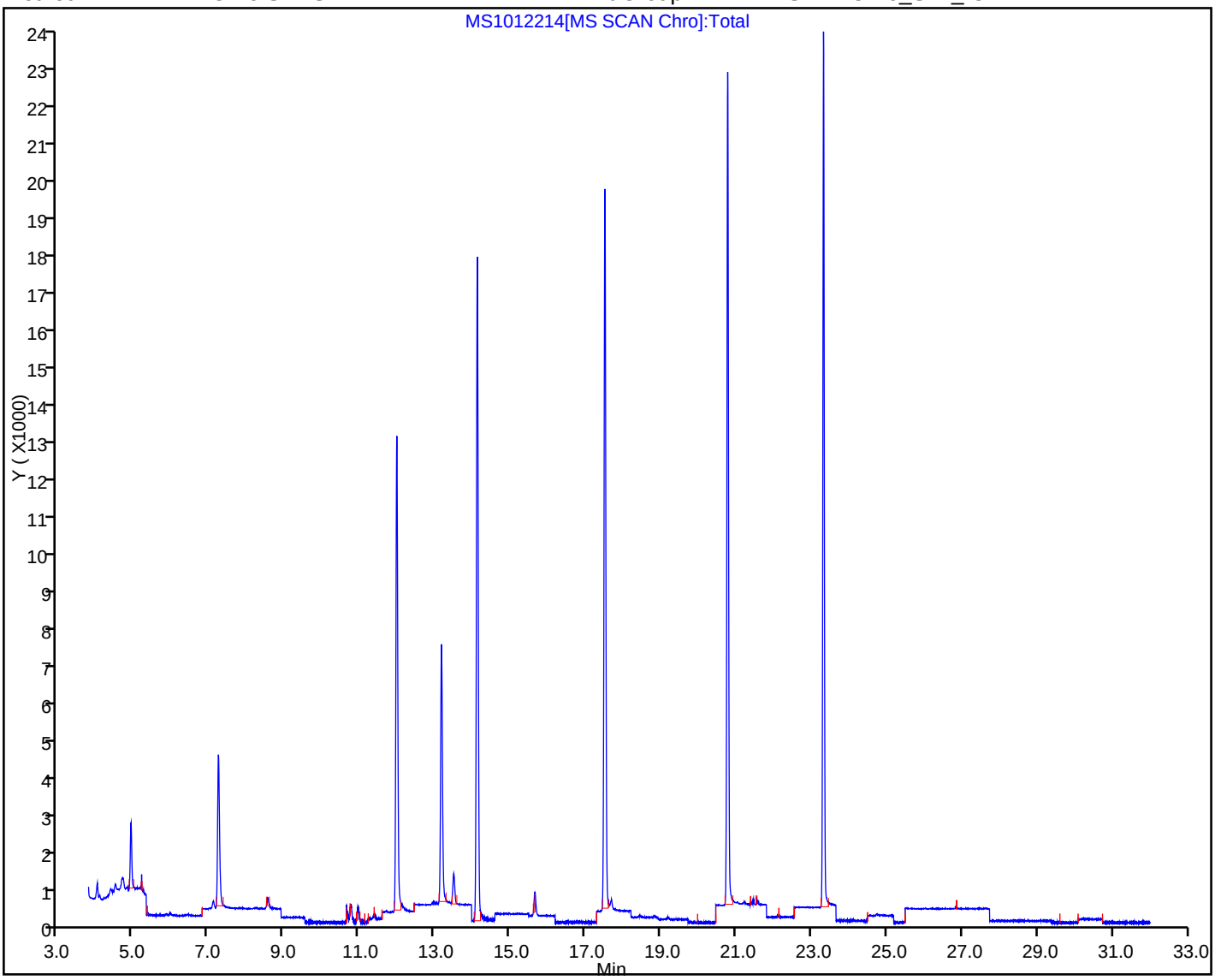
First Level Reviewer: ortizam Date: 28-Jan-2014 10:04:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.980	11.980	0.0	9	14945	1.94	
* 2 1,4-Difluorobenzene	114	14.121	14.118	0.003	1	46299	2.00	
* 3 Chlorobenzene-d5 (IS)	117	20.774	20.772	0.002	1	41682	2.00	
$ 4 1,2-Dichloroethane-d4 (Surr)	65	13.168	13.168	0.0	1	13235	2.08	
$ 5 Toluene-d8 (Surr)	100	17.510	17.510	0.0	1	25027	1.96	
$ 6 4-Bromofluorobenzene (Surr)	95	23.320	23.319	0.001	14	19390	1.71	

Report Date: 28-Jan-2014 10:04:12 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File:	\\SACCHROM\ChromData\ATMS1\20140122-10073.b\MS1012214.d				
Injection Date:	22-Jan-2014 22:50:30	Instrument ID:	ATMS1		
Lims ID:	320-5807-A-5	Lab Sample ID:	320-5807-5		
Client ID:	34000176				
Operator ID:	AJS	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO-15 SIM SIM	Limit Group:	MSA - TO-15_SIM_ICAL		



BONKOWSKI & ASSOCIATES, INC.

Appendix B

Appendix B. Incremental Cancer Risk and Hazard Quotient Assessment Site Specific
1532 thru 1540 Park Street, Alameda, California

1532 Park - Luque's Upholstry

Risk = EC_c * IUR

$EC_c = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_c \times 365\ days/year \times 24\ hours/day)$

	C	ET	EF	ED	AT_c	Conversion Factor	EC_c	IUR	Incremental Cancer Risk	Acceptable Risk
PCE	19	8	260	5	70	8760	0.32	2.60E-07	8.38E-08	1.00E-06
TCE	640	8	260	5	70	8760	10.85	1.70E-06	1.85E-05	1.00E-06
								Total	1.85E-05	

Hazard Quotient = EC_{nr} / RfC

$EC_{nc} = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_{nc} \times 365\ days/year \times 24\ hours/day \times RfC)$

	C	ET	EF	ED	AT_{nc}	Conversion Factor	EC_{nc}	RfC	Hazard Quotient	Acceptable Hazard Quotient
PCE	19	8	260	5	30	8760	0.75	40	0.018798	1
TCE	640	8	260	5	30	8760	25.33	2	12.66362	1
								Total	1.27E+01	

1534 Park - Former Bell Cleaners

Risk = EC_c * IUR

$EC_c = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_c \times 365\ days/year \times 24\ hours/day)$

	C	ET	EF	ED	AT_c	Conversion Factor	EC_c	IUR	Incremental Cancer Risk	Acceptable Risk
PCE	4.6	8	260	5	70	8760	0.08	2.60E-07	2.03E-08	1.00E-06
TCE	34	8	260	5	70	8760	0.58	1.70E-06	9.80E-07	1.00E-06
								Total	1.00E-06	

Hazard Quotient = EC_{nr} / RfC

$EC_{nc} = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_{nc} \times 365\ days/year \times 24\ hours/day \times RfC)$

	C	ET	EF	ED	AT_{nc}	Conversion Factor	EC_{nc}	RfC	Hazard Quotient	Acceptable Hazard Quotient
PCE	4.6	8	260	5	30	8760	0.18	40	0.004551	1
TCE	34	8	260	5	30	8760	1.35	2	0.672755	1
								Total	6.77E-01	

1540 Park - Genghis Kahn Kitchen

Risk = EC_c * IUR

$EC_c = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_c \times 365\ days/year \times 24\ hours/day)$

	C	ET	EF	ED	AT_c	Conversion Factor	EC_c	IUR	Incremental Cancer Risk	Acceptable Risk
PCE	7.6	8	260	5	70	8760	0.13	2.60E-07	3.35E-08	1.00E-06
TCE	8	8	260	5	70	8760	0.14	1.70E-06	2.31E-07	1.00E-06
								Total	2.64E-07	

Hazard Quotient = EC_{nr} / RfC

$EC_{nc} = (C_{indoor\ air} \times ET \times EF \times ED) / (AT_{nc} \times 365\ days/year \times 24\ hours/day \times RfC)$

	C	ET	EF	ED	AT_{nc}	Conversion Factor	EC_{nc}	RfC	Hazard Quotient	Acceptable Hazard Quotient
PCE	7.6	8	260	5	30	8760	0.30	40	0.007519	1
TCE	8	8	260	5	30	8760	0.32	2	0.158295	1
								Total	1.66E-01	

	USEPA Values for Residential Use	USEPA Values for Site Worker Use	
C			Indoor Air Concentration
ET	24	8	Exposure time (hours per day)
EF	350	260	Exposure Frequency (days per year)
ED	30	25	Exposure duration
AT_c	70	70	Period of time over which exposure is averaged - carcinogens (years)
AT_{nc}	30	30	Period of time over which exposure is averaged - non-carcinogens (years)