



REMEDIAL INVESTIGATION REPORT

37-88 Review Avenue

Long Island City, Queens, New York

Submitted To: New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7016

Submitted By: Golder Associates Inc.
200 Century Parkway, Suite C
Mt. Laurel, NJ 08054 USA

November 2014

Project No.13-02414-01

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November 29, 2014

Project No.: 130-2414

Brian Davidson – Project Manager
NY State Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233

**RE: SUBMITTAL OF REMEDIAL INVESTIGATION REPORT
FOR 37-88 REVIEW AVENUE (PHOENIX PROPERTY)
LONG ISLAND CITY, QUEENS, NEW YORK**

Dear Mr. Davidson:


This Remedial Investigation Report (RI Report) has been prepared by Golder Associates Inc. (Golder) at the request of the New York State Department of Environmental Conservation (NYSDEC) for the property located at 37-88 Review Avenue, Long Island City, Queens, New York (Phoenix Property).

Please do not hesitate to contact Stuart Mitchell at 856-793-2005 should any questions arise from your review of this document.

Very truly yours,

GOLDER ASSOCIATES INC.


Heather Lin
Senior Project Geologist


Stuart D. Mitchell, PG
Principal

HAL/SDM:Irr

cc: S. Selmer, New York State Department of Health





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1.0 INTRODUCTION

This Remedial Investigation (RI) Report has been prepared by Golder Associates Inc. (Golder) to report the results of the RI conducted at the Phoenix Property at the request of the New York State Department of Environmental Conservation (NYSDEC). The RI Report is submitted in accordance with the approved Remedial Investigation/Focused Feasibility Study Work Plan (RI/FFS Work Plan; Golder 2013), finalized on January 7, 2014, and presents the findings of the field investigations conducted in and around the Phoenix Property. The Phoenix Property is located at 37-88 Review Avenue, Long Island City, Queens, New York (Figure 1).

As stated in the RI/FFS Work Plan, the overall objectives of the RI/FFS for the Phoenix Property are as follows:

- Determine the nature and extent of constituents of potential concern (COPC) and potential impacts to the public health, welfare, or the environment caused by the release or potential release of COPC at or from the Phoenix Property by completing a Remedial Investigation.
- Determine and evaluate remaining data gaps, as well as alternatives for remedial action, if any, to prevent, mitigate, or otherwise respond to or remedy a release or potential release of COPC at or from the Phoenix Property by conducting a Focused Feasibility Study.

This RI Report describes the RI activities that were conducted for the Phoenix Property and includes the following key elements:

- A general description of the Phoenix Property including historical operational / environmental activities is presented in Section 2.0
- Remedial Investigation field activities are presented in Section 3.0
- Non RI Field activities (indoor air methane survey) is presented in Section 4.0
- Geologic and hydrogeologic investigation results are presented in Section 5.0
- Summaries of laboratory analysis and data validation are presented in Section 6.0
- Remedial Investigation results are presented in Section 7.0
- A Qualitative Exposure Assessment is presented in Section 8.0
- A Conceptual Site Model is presented in Section 9.0
- A Summary based on the results of the RI is presented in Section 10.0
- References utilized during the preparation of this RI Report are presented in Section 11.0



2.0 GENERAL SITE DESCRIPTION

2.1 General Phoenix Property Description

The Phoenix Property consists of an approximately 1.8 acre parcel within a highly industrialized area of Long Island City, Queens, New York. The Phoenix Property is currently occupied by a multi-story warehouse with a partial mezzanine located in the eastern portion of the parcel, a roof-top parking area with access to offices located on the first and second floors, and a paved drive-way and parking area in the western portion of the parcel. The floor of the warehouse consists of poured concrete, slab on grade (Geosyntec, February 2010) and is approximately 6-inches thick, reinforced with a six-by-six No. 10 wire mesh and is approximately 16.5 feet-above mean sea level (ft MSL). Phoenix Property Site drawings were requested but according to Phoenix Site personnel the drawings were destroyed in a flood.

Figure 1 shows the location of the Phoenix Property on a USGS quadrangle map, and Figure 2 provides an area-wide plan that shows the Phoenix Property in context with surrounding properties. The Site is bounded by Review Avenue followed by Calvary Cemetery to the northeast, a vacant lot used for vehicle parking to the northwest (37-80 Review Avenue), an industrial warehouse to the southeast (38-20 Review Avenue), and the Long Island Railroad (LIRR) to the southwest.

The adjacent property to the northwest of the Phoenix Property (37-80 Review Avenue) is referred to as the Review Avenue Development II (RAD II) property, which is listed as a NYSDEC Class 2 Inactive Hazardous Waste Site and is subject to provisions of the Record of Decision (ROD) dated February 9, 2007. A Brownfield Cleanup Agreement (BCA# C241005) was executed by DMJ Associates, LLC, 37-80 Review Ave. LLC, and Cresswood Environmental Consultants, LLC (Cresswood) for RAD II on December 2, 2005; that BCA includes off-site activities on the Phoenix Property, to the extent caused by releases at the RAD II Property as part of the Remedial Design. The adjacent property to the southeast of the Phoenix Property is 38-20 Review Avenue. The Calvary Cemetery, across Review Avenue to the north, covers roughly 175 acres and has approximately 3,000 feet of frontage along Review Avenue. A facility operated by Waste Management, Inc. is located beyond the LIRR easement to the southwest, followed by Newtown Creek, which is located approximately 350 feet from the Phoenix Property.

The Phoenix Property was historically the northwestern-most portion of the Former Pratt Oil Works (FPOW), which encompassed approximately 18.51 acres on and to the south and east of the Phoenix Property. The Phoenix Property is one parcel of the multi-parcel FPOW, which ExxonMobil Oil Corporation's ("ExxonMobil") predecessor operated. In 2008, ExxonMobil voluntarily entered into an investigation-only Consent Order, No. D2-1002-12-07AM with NYSDEC and is currently implementing investigations and interim remedial measures (IRM) including light non-aqueous phase liquid (LNAPL) recovery relative to the FPOW. To date, the IRM does not include activities on this portion of the FPOW.



2.2 Site Description

2.2.1 Former and Current Operations

The Phoenix Property and surrounding properties have been used for various industrial purposes, including petroleum refineries, chemical manufacturing, warehouse/storage, and waste transfer since the mid-1800's. According to a chain of title search conducted by Kleinfelder (March 2010) Pratt Manufacturing Company operated the FPOW from 1887 until 1892, when it was sold to Standard Oil Company of New York (SOCONY). SOCONY may have utilized the FPOW for the manufacture of wax, lubricating oils, burning oils, grease compounding, and as a coeprage from approximately 1892 through 1949, at which time operations on the FPOW ceased. After 1949, the FPOW was decommissioned and various property sale transactions took place, concluding in 1951 (Kleinfelder, March 2010). Subsequently, the Phoenix Property was owned by various companies, many of which conducted industrial operations, including Branlon Corp. in 1951, Commercial Metals Co. in 1951, New England Transportation Comp. in 1954, Kay Realty in 1955, National Hardware Corp. in 1957, McGuiness Harp Corp. in 1970, and Up from the Ashes since 1984.

The following provides a summary based on review of Sanborn maps for the years 1898, 1915, 1936, and 1975, and aerial photographs for the years 1924, 1949, 1954, 1966 and 1980:

- 1898: The earliest available Sanborn Map, dated 1898, indicates the Phoenix Property had been previously developed and was being operated by the Charles Pratt Oil Refinery, now referred to as the FPOW. Little detail and no process equipment are shown on the map. However, the Phoenix Property is shown within the boundaries of the FPOW.
- 1915: The Sanborn map shows process equipment and buildings located on the Phoenix Property, including a boiler, two Filter Press Houses, Distilling Department, Iron Condensers, a vacant building and 9 round items that appear to be above ground tanks.

1924: Aerial Photo shows the area of Review Avenue in 1924. The photo can be found at: <http://maps.nyc.gov/doitt/nycitymap/?z=8&p=1002170,205969&c=GIS1924&s=a:37-88,REVIEW+AVENUE,QUEENS>. The 1924 aerial photo shows what appears to be 2 round above ground storage tanks (ASTs) in the northwest corner of the Phoenix Property, four buildings, and other round objects on the eastern side of the Phoenix Property.
- 1936: The Sanborn map shows process equipment and buildings similar to 1915, except the boiler is not shown and two large oil ASTs are located in the northwest corner of the Phoenix Property where the formerly vacant building was located. The two large ASTs can also be seen in the 1924 aerial photo.
- 1949: The aerial photo shows ASTs and buildings located on the Phoenix Property. Nine ASTs are identified on the aerial photographs.
- 1954: The aerial photo shows that the Phoenix Property and the east adjacent 38-20 Review Avenue Property have been cleared; there appears to be surface debris. Buildings are still in place further east and a tall stack is in place to the east.
- 1966: The aerial photo shows a rectangular structure in the northern portion of the Phoenix Property that appears to be a distribution center with trailer truck parking in its



southern portion. Building permit information indicates that the building was constructed in 1955. The ASTs observed in the 1951 aerial photo were not present.

- 1975: The Sanborn map shows that ASTs and infrastructure previously located at the Phoenix Property had been replaced with the current building labeled “McGuinness Harp Corp.” The building appears similar to the present structures, except that the rear dock along LIRR does not appear to have been constructed. Building permits indicate that this building was constructed in 1971.
- 1980: The aerial photo shows the current building, except the loading dock does not appear to have been constructed. The parking lot was being utilized for trailer truck parking.

Based on this review, it appears that the surface structures of the FPOW were removed from the Phoenix Property between 1949 and the time of the 1954 aerial photographs. The Phoenix Property’s building was erected in 1971. Up From the Ashes acquired the property in 1984 and has leased the property to Phoenix Beverages, Inc. as a beverage and warehouse distribution center. Currently, space within the warehouse is leased to a number of businesses (e.g.; storage, distribution, electronics separation).

The Phoenix Property has two operational 4000-gallon diesel underground storage tanks (USTs), which are located in the corner along the north-western portion of the building (Figure 3). The USTs are the only tanks currently registered on the NYSDEC bulk storage database. According to Phoenix Property site personnel, the USTs are currently empty and have not been used since 2010. The NYSDEC Spill Incident Database has an entry for a gasoline spill (Spill Number 9412567) of an unknown quantity on December 19, 1994 due to a tank test failure that was subsequently closed on February 28, 2003. No registration records for a gasoline tank were found during the database search. However, according to Phoenix Property site personnel, both gasoline and diesel were stored in USTs. A Plumbing Mechanical Equipment and Tank Installation application was filed on September 2, 1970 by The Guinness Harp Corporation (for an estimated \$70,000 worth of work). Another Plumbing Mechanical Equipment and Tank Installation application was filed a few months later on April 26, 1971 by The Guinness-Harp Corporation with the New York City Department of Building for the installation of a 4,000 gallon gasoline tank and pump (for an estimated \$2,000). There was no information as to the location of the proposed 4,000 gallon gasoline tank.

2.2.2 Summary of Previous Environmental Investigations

Previous and on-going environmental investigations conducted in the area, both on the Phoenix Property and on adjacent properties, provided information that was used to develop the approved RI/FFS WP. A RI/FS (Remedial Investigation/Feasibility Study; Golder, July 2005) was conducted on RAD I and RAD II Properties immediately adjacent to the northwestern boundary of the Phoenix Property (Figure 2). This RI evaluated the nature and extent of contaminants of concern in soil and groundwater, fate and transport of the constituents, and the nature and extent of LNAPL including: LNAPL distribution, volume, and mobility at the RAD II parcel. As part of the RI, a total of five wells were installed on the Phoenix Property



(GAL-14, GAL-15, and GAL-17 in 2004, and GAL-25 and GAL-26 in 2005). LNAPL samples were collected (where present) and characterized (chemical and physical characterization). Subsequent investigations at the Phoenix Property under the Brownfield Program have included a soil vapor study (Geosyntec, 2010) and the installation of two additional wells (GAL-32 and GAL-33) on the Phoenix Property inside the building in February 2013, as directed by the NYSDEC.

There is an on-going investigation by Kleinfelder in the area that includes characterization of certain parcels within the FPOW. In total, 79 monitoring points (wells) have been installed on the FPOW, excluding the Phoenix Property (Kleinfelder, July 2013). A summary of the environmental data collected from these investigations was presented in the RI/FFS Work Plan.

2.3 Environmental Setting

2.3.1 Phoenix Property Description

The approximately 1.8-acre Phoenix Property is located in a section of Long Island City, Queens, New York that has been highly industrialized for more than a century. There are two remediation sites within a half-mile radius of the Phoenix Property as identified by the NYSDEC Environmental Site Remediation Database which include the neighboring property (RAD II) and the Roehr Chemicals, Inc. site located approximately a quarter mile to the north. Additionally, the FPOW site, which encompasses approximately 18.5 acres, includes the Phoenix Property. The FPOW site, other than the Phoenix Property, is currently being investigated pursuant to a voluntary investigation-only Consent Order between ExxonMobil and the NYSDEC. Interim remedial measures have been implemented at several locations on the FPOW by ExxonMobil. Other than the work described in Section 2.2 above, no investigation of the Phoenix Property had been undertaken pursuant to the Consent Order prior to this RI.

Figure 2 shows an aerial photographic map (February 2012) of the Phoenix Property and surrounding properties and existing monitoring wells. Approximately 20% of the Phoenix Property is covered by asphalt or concrete pavement on the western side. The remainder of the Phoenix Property (eastern side) is occupied by an above-grade multi-story building. Two known 4,000 gallon diesel USTs also exist on the Phoenix Property and according to Phoenix Property site personnel the USTs are reportedly empty and have not been used since 2010.

2.3.2 Phoenix Property Geology and Hydrogeology

Subsurface soils and groundwater conditions in the vicinity of the Phoenix Property had been characterized extensively prior to the RI during previous investigations conducted on the Phoenix Property and on parcels within the FPOW. The geologic and hydrogeologic conditions described below are based on the findings of the previous investigations and the current findings of this RI.



Stratigraphy at the Phoenix Property is generally characterized by urban fill overlying sand deposits with gravel and silt lenses, followed at depth by a clay unit. The material directly underlying the surface cover at the Phoenix Property and surrounding area is largely composed of anthropogenic, urban fill consisting of a mixture of heterogeneous soil intermixed with brick fragments, asphalt, wire, concrete, plastic and other debris, and ranging in thickness from 1 to 20 feet (5 to 20 feet on the Phoenix Property).

Underlying the fill is an upper sand and gravel unit. This unit is composed of unconsolidated glacial and alluvium deposits that consist predominately of interbedded horizons of fine-to-coarse sand with local intervals of fine-to-coarse gravel.

Below the upper sand and gravel deposit lies a discontinuous, shallow silt and silty-clay horizon (0 to 8 feet thick), which have been encountered in previous investigations conducted on the Phoenix Property and on parcels within the FPOW. Below these units is a lower sand and gravel unit (approximately 25 feet thick). The deepest geologic unit encountered during previous investigations consists of laterally continuous clay of the Raritan Formation, which was encountered approximately -45 to -55 feet below mean sea level (MSL) (approximately 65-75 feet below grade).

The Phoenix Property lies between a local topographic high to the northeast and Newtown Creek to the southwest (a tidally influenced regional groundwater discharge area). As presented in the 2005 RI Report (Figures 11 and 12), groundwater flow beneath the RAD II Property (located to the west of the Phoenix Property) was interpreted to flow to the south-southwest. To the east of the Phoenix Property (i.e., the northwestern portion of the FPOW) groundwater flow has been observed to the south-southeast (Figure 6, May 2013 Kleinfelder Supplemental Site Characterization Report). Vertical hydraulic gradients beneath the RAD II Property are generally negligible.

A shallow clay horizon identified just southwest of the Phoenix Property and the RAD II property is believed responsible for the formation of a groundwater mound in the area of the railroad tracks based on the RAD II RI (Golder, June 2005). Despite the presence of this groundwater mound, groundwater is anticipated to flow toward Newtown Creek. Newtown Creek is listed as a Class SD surface water, which is the lowest classification for saline surface water in New York State.

Public drinking and industrial water for Queens County are supplied primarily by the New York City reservoir system; groundwater within the vicinity of the Phoenix Property is not used for potable purposes and likely will not be used in the future as a potable source. Based on the RI conducted for the RAD II site and portions of the FPOW, any groundwater impacts at the Phoenix Property are expected to be confined to a shallow water bearing unit flowing in a generally southerly direction, which would not impact potable water supplies.



2.3.3 Surface Water Hydrology

The Phoenix Property lies approximately 15 to 26 feet above MSL with its highest elevation along Review Avenue sloping downwards to the southwest. Calvary Cemetery, located northeast of the Phoenix Property, on the opposite side of Review Avenue, is a local topographic high with elevations ranging from approximately 50 to over 70 feet MSL. Between the Phoenix Property and Newtown Creek lies the LIRR which runs east/west through the FPOW properties and other industrial properties, which locally affect surface water drainage.

The surface water runoff from the paved drive-way and parking area drains to an existing stormwater sump equipped with submersible pumps. The accumulated stormwater from the sump is pumped to an existing combined sewer system located along Review Avenue.



3.0 SUMMARY OF REMEDIAL INVESTIGATION FIELD ACTIVITIES

The RI field work included activities specified in the approved RI/FFS Work Plan. RI field activities were conducted March-September 2014. In summary, the field work included the following activities¹:

- A vapor intrusion investigation including a building survey and collection of:
 - two outdoor air samples
 - four indoor air samples
 - eight sub-slab gas samples
 - three soil vapor samples
- Completion of four Laser Induced Fluorescence (LIF) screening borings
- Soil sampling in the unsaturated zone at four locations
- Installation of four new monitoring wells, generally co-located with the LIF borings
- Two synoptic rounds of groundwater and LNAPL gauging from 21 monitoring wells on and off the Phoenix Property
- Collection of one groundwater sample on the Phoenix Property
- Collection of LNAPL samples from 16 wells on and off the Phoenix Property
- Baildown tests in nine wells on the Phoenix Property
- Phoenix Property boundary and well surveys

All field activities were conducted in general accordance with the approved RI/FFS Work Plan, as described in the following sections. Utility clearance activities and surveying services were provided by GEOD Corporation of Newfoundland, NJ. LIF/UVOST services were provided by Columbia Technologies, Inc. of Baltimore, MD. Drilling services were provided by AmeriDrill, Inc. of Levittown, PA.

3.1 Utility Clearance Activities

Two utility clearance techniques were utilized to clear for potential subsurface utilities in all intrusive locations (Figure 3), which include:

- Soil vapor locations (SV-27 through SV-29)
- Sub-slab soil gas sample locations (SSV-1 through SSV-8)
- LIF locations (LIF-34 through LIF-37)
- LNAPL monitoring well locations (GAL-34 through GAL 37)

First, a private utility locating contractor (GEOD Corporation of Newfoundland, NJ) used Ground Penetrating Radar (GPR) and Electro-Magnetic Pipe, Cable, and Box locators (EM) in all of the above referenced locations. GPR was used to scan a 10-foot minimum radius around each location and any

¹ During RI activities samples (LNAPL, soil, sub-slab soil vapor, and groundwater) were collected by other parties.



potential underground utilities and/or anomalies were marked. The utility clearance report is provided in Appendix A.

A portable core drill was then used by the Drilling subcontractor (AmeriDrill) to core through the reinforced concrete slab (indoor locations only), which was approximately 6 inches thick at all locations. A 3-inch diameter core hole was advanced for the LIF locations and an 8-inch diameter core hole was advanced for the LNAPL monitoring well locations.

After soil sampling from 0-2 feet below the concrete was completed with a hand auger (see Section 3.5.1) at GAL-34 through GAL-37, the Drilling subcontractor used a VacMaster high pressure and suction technique to “soft-dig” to approximately five feet below ground surface (ft bgs). Once the boring location was cleared of utilities or anomalies, the boring was advanced and completed with either direct push or hollow stem auger drilling techniques.

3.2 Air Monitoring Activities

Air monitoring was conducted during the RI field activities. Air quality was monitored in the breathing zone, at the top of the borehole/monitoring well and along the perimeter of the work area with a photo-ionization detector (PID) and multi-gas meter (which includes calibration for methane). Background levels were measured prior to starting work. The perimeter of the work zone was surveyed periodically to monitor if volatile organic compounds (VOCs) extended beyond the immediate work area. Exhaust from the Geoprobe during indoor drilling was controlled by an emissions converter device attached to the exhaust outlet point. Air quality during drilling or other intrusive activities did not reach action levels (as identified in the project Health and Safety Plan (HASP) in Appendix A of the RI/FFS Work Plan). During groundwater and LNAPL monitoring, a flame-ionization detector (FID) that was calibrated against methane was also used to monitor air quality at the well heads. At no time during the RI activities were any readings recorded above background along the perimeter and within the breathing zone. Air monitoring records are provided in Appendix B.

3.3 Vapor Intrusion Investigation

The objectives of the vapor intrusion investigation (VII) were to supplement previous VII activities² conducted by Geosyntec, on behalf of Cresswood in 2010, by investigating potential VOC impacts from

² The 2010 work conducted by Geosyntec included conducting a building survey and to screen for the presence of methane within the building on the Phoenix Property. With respect to methane, Geosyntec concluded “While methane was measured in soil gas at concentrations ranging from 5.3% to 43.6%, methane was not measured above 1 ppm in air samples in the Phoenix Beverages Building, with the exception of low levels (less than 500 ppm) in a sump and floor drains. This indicates that methane vapors are significantly attenuated, which would also be expected to be the case for other hydrocarbon vapors. The attenuation factor based on these data would be expected to be on the order of 0.00001. This is consistent with the visual observations of the integrity of the building foundation and floor slab” (Geosyntec, 2010, Section 9.0).



the soil vapor beneath the building, and determining if a potential VI pathway exists. In accordance with the approved RI/FFS Work Plan (Golder, 2013), the following were conducted as part of the VII activities:

- Building Survey
- Sub-slab soil gas, soil vapor, indoor and ambient air sampling

The following sections detail these field investigation activities.

3.3.1 Building Survey

In preparation for sampling, a building inspection was completed on March 14, 2014 by Golder to evaluate the building use, construction, and other factors that may impact the VII (such as suggesting alternate sampling locations or providing information relevant to interpretation of analytical data). A New York State Department of Health (NYSDOH) Indoor Air Quality Questionnaire and Building Inventory (IAQ form) was completed consistent with the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006; NYSDOH SVI Guidance). One IAQ Form was completed in consultation with the Phoenix Property site representative and various building tenant representatives for the Phoenix Property building and is included in Appendix C. Key information identified during the building inspections included:

- The building is approximately 50,000 square feet and was constructed in 1971 with a poured concrete; slab on grade slab foundation which is approximately 6-inches thick and reinforced. The GEOD survey indicates that the floor is located at approximately 16.5 ft MSL. The majority of the building is one story except the northern portion where a four story office area is situated (footprint approximately 9,300 square feet).
- The building use was observed to be primarily warehousing space, with some commercial activities being conducted (electronics separation, food redistribution)
- Five bay doors exist along the western side of the building which are opened and closed throughout the day as part of normal business operations. These doors were open during RI activities.
- No evidence of cracks, expansion joints or floor penetrations were observed that would suggest potential preferential pathways which would promote soil vapor intrusion. The following were noted:
 - According to the building tenant in the northernmost first floor space along Review Avenue, there is a sump along the northeast building wall. Golder was unable to verify or inspect the sump location and condition due to products stored in this space.
 - A storm water sump was observed in the southwest portion of the building as shown on Figure 3. Golder was unable to verify or inspect the sump location and condition due to products stored in this space.
 - A drain trench was noted extending approximately 180 feet as shown on Figure 3. This trench was filled with debris, but open areas appeared to be competent.
- Chemical usage in the building included:
 - General household cleaners by various tenants (e.g., Lysol, Windex and bleach)



- Shelves where equipment maintenance products are stored are located in the southern part of the building
- Vehicles were observed inside the building loading and unloading inventory
- Tenants were observed smoking within the facility

Planned VII sample locations detailed in the RI/FFS Work Plan were based on initial observations during a property walk conducted on November 14, 2013, on previous VII results, and on the NYSDEC comments. Based on field observations during the March 14, 2014 building inspection, some sample locations were adjusted due to accessibility, current occupancy and use, or at the request of the Phoenix Property site representative. Table 1 details the sample locations, which are shown on Figure 3, along with rationale and tenant use information for each area. In summary, the following samples were collected: four indoor air samples (IA-1 through IA-4), two ambient air samples (OA-1 and OA-2), eight sub-slab soil gas samples (SSV-1 through SSV-8), and three soil vapor samples located outside of the building (SV-27, SV-28, and SV-29). Details regarding the sampling activities are provided in the following sections.

3.3.2 Indoor Air and Ambient Air Sampling

Indoor air samples (IA-1 through IA-4) and ambient air samples (OA-1 and OA-2) were collected on March 24, 2014. Indoor air samples were placed in areas within the Phoenix Property building considered to have a higher continuous occupancy rate (such as offices) and the ambient air samples were placed outside the footprint of the Phoenix Property building. The indoor and ambient air samples were collected using 6-liter Summa canisters with 8-hour flow controllers from a height of approximately 3-feet above the ground surface. The sampling points and sample collection information are summarized in Sample Collection Forms (see Appendix A). Summa canisters were sent under chain-of-custody procedures by overnight courier to TestAmerica for analyses of VOCs by United States Environmental Protection Agency (USEPA) Method TO-15³, as summarized in Table 5A.

3.3.3 Sub-Slab Soil Gas Sampling

Sub-slab soil gas samples (SSV-1 through SSV-8) were collected on March 25 to 26, 2014 following completion of indoor and ambient air sampling activities. Sub-slab soil gas sample ports were installed following completion of subsurface utility clearances. Sub-slab soil gas probes were installed using the following procedures:

- A 3/8-inch diameter hole was drilled using a rotary hammer drill through the concrete floor slab, and penetrated approximately two inches into the sub-slab soil/fill material to create an open cavity.

³ In addition, indoor/outdoor air samples were analyzed for carbon tetrachloride, trichloroethene, and vinyl chloride by method TO-15 low level.



- A temporary sub-slab sample port was constructed with 1/4-inch diameter inert tubing (i.e., Teflon®).

Modeling clay, a non-VOC emitting and non-shrinking sealing material, was used to seal the sampling probe in the hole to prevent migration between indoor air and the sub-slab soil vapor.

After each temporary sub-slab soil gas sampling port was installed, leak testing was performed. Leak testing was conducted using sulfur hexafluoride (SF_6)⁴, as previous investigations (Geosyntec, 2010) suggested the possible presence of methane would interfere with helium measurements. Leak testing was performed as follows:

- A shroud was placed and sealed over the temporary sub-slab soil gas sampling port by using a plastic pail equipped with fittings. The pail enclosed the sampling port and isolated it from the atmosphere.
- The space enclosed by the pail was enriched with sulfur hexafluoride (SF_6) gas through one of the fittings until the SF_6 detector (Model GasCheck 3000is) indicated that the SF_6 level of the air enclosed by the pail was at least 95 percent.
- The inert tubing extending from the sealed sub-slab soil gas sampling port was extended through a different fitting on the pail, and air from the sampling port was purged using the SF_6 detector at approximately 200 mL/min.
- Following removal of one to three probe/tubing volumes SF_6 levels were measured and the ports were determined acceptable for sampling if measurements were less than 10 percent SF_6 .

The leak testing results are provided on the Sample Collection Forms (see Appendix A). Following leak tracer testing, the sample port was allowed to equilibrate for approximately 2 hours prior to collection of samples. Prior to sampling, each sub-slab port was purged using a low flow air pump at 200 ml/min for 5 minutes. Sub-slab soil gas samples were collected using 6-liter Summa canisters with 8-hour flow controllers. The sampling points and sample collection information are summarized in Sample Collection Forms (see Appendix B). Summa canisters were sent under chain-of-custody procedures by overnight courier to TestAmerica for analyses of VOCs by USEPA Method TO-15, as summarized in Table 5A.

The sub-slab soil gas sampling ports were removed and the surface of the floor slab restored using a non-shrink industrial caulk and/or concrete patch.

3.3.4 Soil Vapor Sampling

Soil vapor samples (SV-27 through SV-29) were collected on April 11, 2014 from locations shown on Figure 3. Soil vapor probes were installed following completion of subsurface utility clearances performed by GEOD (Section 3.1). Soil vapor probes were drilled through the parking lot asphalt surface cover following “Soft Dig” utility clearances. The remainder of the hole (5 to 10 ft bgs) was advanced using direct push methods. At each location a six inch stainless steel screen fitted to 1/4-inch inert tubing was

⁴ Helium was specified in approved RI/FFS Work Plan.



installed at approximately 10 feet bgs. The annulus space around the screen and tubing was filled with approximately two feet of glass beads (i.e., Ballotini 60-100 mesh rounded glass beads) to create the sampling zone. An approximate three-foot bentonite slurry seal was placed above the sampling zone to prevent infiltration of ambient air. The remainder of the soil vapor boring was filled with clean sand. Soil vapor probe installation activities were performed by AmeriDrill. Leak testing was performed using methods detailed for sub-slab soil gas ports (Section 3.3.3). Following leak testing, the sample probe was allowed to equilibrate for approximately 2 hours prior to collection of samples. Soil vapor samples were collected using 6-liter Summa canisters with 8-hour flow controllers. The sampling points and sample collection information are summarized in Sample Collection Forms (see Appendix B). Summa canisters were sent under chain-of-custody procedures by overnight courier to TestAmerica for analyses of VOCs by USEPA Method TO-15, as summarized in Table 5A.

Following sample collection, leak testing of the sample port was repeated, the sampling tubing removed and the parking area surface cover restored with asphalt patch.

3.4 LIF/UVOST Screening

Laser Induced Fluorescence (LIF)/Ultraviolet Optical Screening data were collected on April 14, 2014 by Columbia Technologies Inc. ahead of collection of continuous soil cores and well construction. A LIF/UVOST Screening probe was advanced at each location by direct push drilling methods (AmeriDrill) at four locations (LIF-34, LIF-35, LIF-36, and LIF-37). LIF/UVOST data (Appendix D) provided a semi-quantitative measurement regarding the presence of petroleum hydrocarbons in the soil column. A xenon-chloride laser induces fluorescence in certain compounds (such as polycyclic aromatic hydrocarbons) present in petroleum products and the fluorescent intensity is then measured relative to a standard at four wavelengths (350, 400, 450 and 500 nanometers). LIF/UVOST borings LIF-34 through LIF-37 (Figure 3) were advanced to the depth where either no significant response was observed or refusal was encountered:

- LIF-34 to ~21.7 ft bgs (-5.6 MSL) (refusal)
- LIF-35 to ~57 ft bgs (-40.9 ft MSL) (refusal)
- LIF-36 to ~49ft bgs (-32.8 ft MSL)
- LIF-37 to ~49ft bgs (-32.9 ft MSL)

3.5 Soil Sampling

3.5.1 Hand Auger Shallow Soil Sampling

As described in Section 3.1, an 8-inch diameter hole in the concrete floor was cored with a portable core drill machine by the drilling subcontractor. Boreholes GAL-34 through GAL-37 were sampled from 0-2 ft bgs using a decontaminated stainless-steel hand auger. The concrete at all four soil boring locations was 6-inches thick. No rebar or other concrete reinforcement was observed.



Soil samples were logged during drilling activities and classified for physical properties using the Unified Soil Classification System (USCS) and for anthropogenic impacts (staining or odor observations). All recovered soil from hand auger samples was field screened using a PID by slightly scoring the surface of the soil core with a stainless steel knife and immediately running the PID probe along the scored section of the core. Field screening was performed at a location shielded from the wind.

Soil samples were collected in accordance with the approved RI/FFS Work Plan and submitted to Test America for analytical testing, as summarized in Table 5C. Each soil sample was analyzed for Target Compound List (TCL) VOCs, semi-volatile organic compounds (SVOC), polychlorinated biphenyls (PCB), Target Analyte List (TAL) metals, and cyanide.

3.5.2 Direct Push Soil Sampling

Direct push drilling methods were used to collect soil cores below five ft bgs at soil boring/well locations GAL-34, GAL-35, GAL-36 and GAL-37. The soil samples were logged during drilling activities and classified for physical properties using the USCS and for anthropogenic impacts (staining or odor observations) and described in regards to the sample texture, composition, color, consistency, percent recovery and moisture content. Soil characterization of the three to five ft bgs range of each borehole was logged based on visual description of the Fill material removed during soft-dig activities.

Soil samples were collected, in accordance with the approved RI/FFS Work Plan, from the 5-7 ft bgs and 10-12 ft bgs intervals from all samples except GAL-34, which had no recovery from the 10-15 ft bgs interval; due to the poor recovery in the 10-15 ft bgs interval, samples were therefore collected from the 18-20 ft bgs interval in GAL-34⁵. Samples were submitted to Test America for analysis for TCL VOCs, SVOCs, PCBs, TAL metals, and cyanide, as summarized in Table 5C. Soil boring logs are provided in Appendix E.

3.6 LNAPL Well Installation

Following completion of the direct-push soil borings (GAL-34 through GAL-37), 4¼ inch, inner diameter, hollow stem augers were advanced to approximately 28.5 feet bgs in all four monitoring well locations. The final well construction depths were based on the vertical extent of environmental impacts and water table depth observed during the completion of the soil borings. Boring and well installation logs are provided in Appendix C.

3.6.1 LNAPL Well Construction

The monitoring wells were constructed in accordance with the approved RI/FFS Work Plan with 2-inch diameter schedule 40 flush-joint threaded PVC with 0.020 slot screen and solid riser to grade. The

⁵ Soil borings were continued at these locations to the same depths as the LIF borings.



approximate mid-points of the well screens were located across the groundwater/LNAPL interface and were screened from 8 to 28 ft bgs, as described in Table 2.

An 8-inch diameter, flush-mount steel manhole cover assembly was installed within a concrete well pad with a Teflon gasket and silicon seal around the perimeter of the assembly after the annular grout had cured for at least 24 hours. A non-expandable well cap and lock were installed at the completion point of each well.

3.7 Groundwater and LNAPL Level Monitoring

Following installation of GAL-34, GAL-35, GAL-36, and GAL-37, an electronic interface probe (EIP) was used to measure apparent LNAPL thickness and the groundwater/LNAPL interface in the following wells:

- Phoenix Property: MW-8, GAL-14, GAL-15, GAL-17, GAL-25, GAL-26, GAL-32, GAL-33, GAL-34, GAL-35, GAL-36, and GAL-37
- 38-20 Review Avenue: MW-54, MW-55, and MW-56
- 38-22 Review Avenue: MW-6, MW-6S, MW-1, and MW-38 (MW-37, which had been planned to be sampled in the RI/FFS Work Plan was inaccessible during all field events)
- 37-80 Review Avenue GAL-08 and GAL-16R (GAL-03, which had been planned to be sampled in the RI/FFS Work Plan, was flagged by surveyors but could not be located)

Wells were gauged on August 18, 2014, and again on September 3, 2014⁶.

PID, FID, and %LEL readings were taken upon opening each well and readings indicated >100% LEL (calibrated against methane) in the following wells: GAL-08 and GAL-16R on 37-80 Review Avenue; GAL-17, GAL-32, GAL-35, GAL-36, and GAL-37 on the Phoenix Property; MW-1 and MW-6S on 38-22 Review Avenue; and MW-54 and MW-55 on 38-20 Review Avenue. Each of these wells, except MW-1, contained LNAPL. Gauging measurements are provided in Table 3.

3.8 Groundwater Sampling

As per the approved RI/FFS Work Plan, groundwater samples were to be collected only from the Phoenix Property wells that contained no LNAPL and no evidence of LNAPL (sheen). Based on the gauging events only one well, GAL-15, met this criterion. GAL-15 was initially purged using low flow techniques using a decontaminated stainless steel Grundfos Redi-Flo 2 submersible pump. However, due to excessive water level drawdown and very slow recharge, low flow sampling could not be conducted and volume average purging and sampling methods were used per the NYSDEC guidance. The field sampling form is provided in Appendix B. Well GAL-15 was sampled using a Teflon lined, polyethylene bailer and submitted

⁶ A significant difference in LNAPL levels was observed in MW-56 in the southern area of 38-20 Review Avenue between the two gauging events. On August 18, 2014, 0.18 ft LNAPL was detected. During the second gauging event of September 3, 2014, 3.40 ft of LNAPL was detected. Golder was informed by Kleinfelder that apparent LNAPL thicknesses in this well have been variable.



to TestAmerica for analytical testing, as summarized in Table 5B. The groundwater samples were analyzed for TCL VOCs, SVOCs and PCBs, TAL metals, and the Natural Attenuation Parameters (NAPs). All water generated during purging was collected and contained in DOT approved 55-gallon drums for disposal off-site in accordance with all applicable state and federal regulations.

3.9 LNAPL Sampling

LNAPL samples were collected on August 18 and 19, 2014 from:

- Phoenix Property: MW-8, GAL-14, GAL-17, GAL-26, GAL-32, GAL-33, GAL-35, GAL-36, and GAL-37
- 38-20 Review Avenue: MW-54, MW-55, and MW-56
- 38-22 Review Avenue: MW-6 and MW-6S
- 37-80 Review Avenue: GAL-08 and GAL-16R

Due to insufficient LNAPL volume for all analyses in MW-54 and MW-56, additional volume was sampled on September 3, 2014. Samples were not collected from GAL-15, MW-1, and MW-38 because no LNAPL was observed. There was insufficient volume for sampling in wells GAL-25 and GAL-34.

Samples were submitted for laboratory analysis for TCL VOCs, TCL SVOCs, TCL PCBs, TAL metals, gasoline, diesel and mineral range organics (GRO/DRO/MRO), chemical fingerprint by gas chromatography (GC) and library search, TOX (total organic halides), %sulfur, %sediment, flash point, British Thermal Units (BTUs), density, viscosity, and surface and interfacial tension, as summarized in Table 5D.

3.10 LNAPL Baildown Testing

Baildown tests were conducted on nine Phoenix Property LNAPL monitoring wells to help assess LNAPL mobility and transmissivity. Pre-test monitoring of fluid levels was conducted on each well selected for baildown testing on August 18, 2014 to evaluate trends in baseline LNAPL apparent thickness. In general, the test at each well included the instantaneous removal of LNAPL from each well using a dedicated bailer. To remove as much LNAPL as possible in as short a period as possible, several bailers were tied together to maximize the volume of LNAPL removed in the 4-inch diameter wells (GAL-14, GAL-17, and GAL-26). A single bailer was used in 2-inch diameter wells (MW-8, GAL-32, GAL-33, GAL-35, GAL-36, and GAL-37). Prior to each test, the air/LNAPL and LNAPL/water interfaces were measured with a Solinst electronic oil/water interface probe. Once a sufficient volume of LNAPL was removed, the air/LNAPL and LNAPL/water interface was measured and monitored throughout the recovery period. The frequency of monitoring was dependent upon recharge rate and changed with each test. In general, the gauging occurred every minute during the initial 10 minutes of the recovery period and decreased over time until sufficient time had passed. Copies of the LNAPL gauging records are included in Appendix F.



Baildown testing was conducted in accordance with the relevant portions of ASTM, Standard E2856-13 and American Petroleum Institute (API) Publication 46xx [pre-publication draft], September 2012. A minimum apparent LNAPL thickness of 0.5 feet was the threshold for conducting baildown testing (ASTM, 2013). Wells with at least 0.5ft of LNAPL were tested and included:

- GAL-14, GAL, 17, GAL, 26, GAL-32, GAL-33, GAL-35, GAL-36, GAL-37, and MW-8

LNAPL transmissivities were calculated from the American Petroleum Institute's (API) LNAPL Transmissivity Spreadsheet (API, 2012) and are summarized in Table 4. Complete results are presented in Appendix F.

3.11 Surveying

The following survey work was completed by GEOD, a State of New York licensed surveying subcontractor:

- Control Survey – A control survey was performed using NAD 1983 as the horizontal datum and NAVD 1988 as the vertical datum;
- Survey of Environmental Points – All newly installed wells (GAL-34, GAL-35, GAL-36, and GAL-37) and existing wells located on the Phoenix Property were resurveyed.
- Phoenix Property Survey – A survey of the Phoenix Property and buildings was performed.
- GAL-03 was surveyed and the location flagged (well was not found)

3.12 Investigation Derived Waste

Investigation derived Waste (IDW) generated during remedial investigation field activities was containerized in 55-gallon DOT-certified steel open-top drums, labeled, and staged in a secure area on the Phoenix Property as designated by Phoenix Property Management for storage pending off-site disposal in accordance with all applicable state and federal regulations.

Composite samples of the IDW materials were collected for waste characterization on September 4, 2014 and scheduling transportation and off-site disposal is in progress.



4.0 NON-RI FIELD ACTIVITIES – INDOOR AIR METHANE SURVEY, SAMPLING AND RESULTS

At the request of Exxon Mobil and Quanta Resources Corporation Golder completed an indoor air survey of the Phoenix Building for methane on November 5, 2014. The scope of work for this indoor air building survey for methane was similar to the work performed by Geosyntec on January 9, 2010 as described in their February 9, 2010 Report (Phase IIA Soil Vapor Investigation Report: Review Avenue Development II Property). However, the survey conducted on November 5, 2014 also included sampling of the indoor air for quantitative analysis of methane by TestAmerica.

The work performed included use of field-screening instrumentation to evaluate for the presence of methane in addition to the collection of indoor air samples for laboratory analysis of methane. A FID calibrated against methane with an activated charcoal filter (which has a detection limit of 0.5 ppm) and GEM 2000 landfill gas meter (which has a methane detection limit of 500 ppm (1% of the LEL)) were used to measure the levels of methane in the Phoenix Building. Specific field measurements were made at a total of 32 locations throughout the warehouse (ground floor) and office building (1st and 2nd floor) to evaluate occupied areas of the Phoenix building. Readings were collected from identified areas of interest observed at the time of the survey: cracks in the walls and floors, within enclosed spaces, along drainage structures in and out of the Phoenix building, in elevated locations (loft location within the warehouse and on the first and second floor), and in other locations to provide general coverage of occupied areas within the Phoenix building where access was provided.

At the time of the building survey, the Phoenix building use was observed to be primarily warehousing space (ground floor), with some commercial/industrial activities being conducted (electronics separation, food redistribution). Two bay doors exist along the western side of the Phoenix building and two bay doors exist on the northern side of the southern portion of the building. These bay doors are open throughout the day as part of normal business operations and were open during the indoor air survey and sampling activities. No evidence of cracks, expansion joints or floor penetrations was observed, although hair-line cracks were observed. Not all areas of the Phoenix building were accessible; the maintenance room and spaces occupied by several tenants located along the northeast wall of the warehouse portion of the Phoenix building.

Summa Canisters provided by TestAmerica were used to collect grab indoor air samples at 8 representative locations (IA-M1 through IA-M8) within the Phoenix building as described in Appendix G (Table G1 and Figure G1). These samples were sent under chain-of-custody procedures overnight to TestAmerica for analyses of methane by USEPA Method 3C.

Methane was not detected at any location with the GEM 2000 meter. The more sensitive FID meter had low levels detections within the Phoenix building warehouse area. The highest concentration of methane



detected was at a floor drain at a concentration of 370 ppm (less than one-hundredth of the LEL) within the Phoenix building warehouse. The FID reading at a height of approximately 5 feet above the drain was 2.6 ppm. Methane was not detected in samples IA-M1 through IA-M8 above the analytical laboratory reporting limit. The results are provided in Appendix G.



5.0 SUMMARY OF GEOLOGIC AND HYDROGEOLOGIC INVESTIGATION RESULTS

5.1 Site Geology

The Phoenix Property is located approximately 350 feet northeast of Newtown Creek that flows northwest into the East River in the western part of Long Island. The surficial material on the Phoenix Property and in the vicinity of the Phoenix Property are composed of man-made urban fill and reworked natural glacial and alluvium deposits as identified during this RI as well as previous investigations.

Subsurface soils and groundwater conditions in the vicinity of the Phoenix Property have been characterized extensively during previous investigations conducted on the Phoenix Property and on parcels within the FPOW, RADII and RADI. The following geologic interpretation is based on the results of subsurface investigation (drilling) completed as part of the Phoenix Property RI and from of the sources described above. The geologic strata observed at the Phoenix Property (presented from youngest to oldest) are:

- Urban Fill
- Glacial and Alluvium Deposits

A brief description of each geologic unit is provided below and geologic cross sections are presented in Figure 4. Well installation logs/soil boring logs are provided in Appendix C.

5.1.1 Urban Fill

The surficial material beneath the surface cover at the Phoenix Property and surrounding area is largely comprised of anthropogenic, urban fill consisting of a mixture of heterogeneous material primarily consisting of angular to sub angular silty sand and gravel locally intermixed with brick fragments, asphalt, concrete, coal ash fines, plastic and other debris. On the Phoenix Property the urban fill ranges in thickness from 5 feet (GAL-14 and GAL-15) to 20 feet (GAL-34).

5.1.2 Glacial and Alluvium Deposits

The materials underlying the urban fill are a sedimentary sequence composed of alluvial and glacial deposits. The upper portions (roughly 20-30 feet thick) of this stratigraphic unit contain discontinuous peat, silt, silty-sand, silty-clay, and clay horizons, which have been encountered in previous investigations. This sequence was not encountered in boreholes of GAL-34, GAL-36, and GAL-37 on the Phoenix Property. A sandier sequence of material was observed in wells GAL-34, GAL-35, GAL-36, and GAL-37 as illustrated on Cross-Sections A-A' and B-B' on Figure 4. Beneath the shallow peat, silt, silty-sand, silty-clay, and clay horizons is a relatively continuous sequence of sand and gravel deposits that



consist predominately of interbedded horizons of fine-to-medium sand and fine-to-coarse sand with some fine-to-coarse gravel.

5.2 Site Hydrogeology

The Phoenix Property lies between a local topographic high to the northeast and Newtown Creek, a tidally influenced regional groundwater discharge area to the southwest. A synoptic round of LNAPL and groundwater level gauging was conducted on August 18 and September 3, 2014 from appropriately constructed LNAPL monitoring wells on the Phoenix Property, on the FPOW, and on the RAD II Property. The monitoring well gauging data are summarized in Table 3. Depth to groundwater on the Phoenix Property ranged from 12.14 feet below grade at GAL-34 to 19.62 feet below grade GAL-35 (beneath LNAPL). Interpreted groundwater contour maps along with LNAPL observations are presented on Figures 5 and 6. As shown on Figures 5 and 6, relatively higher groundwater elevations are observed at GAL-34 and MW-38. These higher groundwater elevations relative to other nearby wells indicate the presence of a local groundwater mound, consistent with investigations on RAD II. A shallow clay horizon identified just southwest of the Phoenix Property and the RAD II Property may be responsible for the formation of a local groundwater mound in the area of the railroad tracks. The presence of the shallow clay horizon and associated local groundwater mound is based on previous remedial investigation (Golder, June 2005) and the current Phoenix Property RI.

Public drinking and industrial water for Queens County are supplied primarily by the New York City reservoir system; groundwater within the vicinity of the Phoenix Property is not used for potable purposes and likely will not be used in the future as a potable source.



6.0 LABORATORY ANALYSIS AND VALIDATION

All samples were analyzed in accordance with the approved RI/FFS Work Plan and have been reviewed following guidance provided by the USEPA Region II Standard Operating Procedures (SOPs). A data quality review and detailed findings of the data quality assessment are presented in the Data Usability Summary Report (DUSR), included as Appendix F. Groundwater, soil, LNAPL, and vapor samples were analyzed in a fixed laboratory, as summarized in Tables 5A – 5D. LNAPL samples were analyzed for % sulfur, % sediment, flash point, BTUs, density, viscosity, surface tension, and interfacial tension by Texas OilTech Laboratories, L.P. of Houston, TX (TOT). All other analyses were conducted by TestAmerica Laboratories, Inc. Analytical data packages are provided in Appendix H.

Notable observations from the data quality assessment are presented below:

- All indoor air and ambient/outdoor air samples were analyzed by two methods (methods USEPA TO-15 and USEPA TO-15 low level⁷) for carbon tetrachloride, trichloroethene, and vinyl chloride. In order for the data to satisfy project requirements and the laboratory to achieve the lowest possible reporting limits, results from the low level analysis were deemed reportable for these compounds, and results from the standard USEPA TO-15 analysis were deemed non-reportable.
- Certain soil, LNAPL, and groundwater results were rejected when recoveries in the matrix spike / matrix spike duplicate (MS/MSD) samples were non-detect (organic analyses) or less than 30% (inorganic analyses).
- Additional qualifications of the data as estimated (J for detected results, UJ for non-detect results) or non-detect (U) were required for some of the data based on general method conformance, holding times, blank contamination, laboratory control samples, surrogate and spike recoveries, field precision, precision of duplicate measurements, and calibration and instrument performance. Specific qualifications applied to the data are detailed in the DUSR.

In summary, the overall validated data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated data (J/UJ)) for soil samples was 99.8%, for LNAPL samples was 98.6%, for groundwater samples was 99.4%, and for vapor samples was 100%.

⁷ USEPA Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS) (January 1999), and TO-15 LL (Low-Level) Supplement to EPA Compendium TO-15 – Reduction of Method Detection Limits to Meet Vapor Intrusion Monitoring Needs.



7.0 SUMMARY OF INVESTIGATION RESULTS

7.1 Vapor Intrusion Investigation Results

As presented in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006), “The phrase ‘soil vapor intrusion’ refers to the process by which volatile organic chemicals (VOCs) migrate from the subsurface source into the indoor air of buildings.” VII samples collected from the building indoor air, sub-slab soil gas, outdoor air and soil vapor nearby the building were used to determine whether a VI pathway exists from subsurface source(s) to soil gas to indoor air.

7.1.1 Screening Levels

NYSDOH provides indoor air and outdoor air screening levels for the following compounds that were included in the VOC list analyzed: methylene chloride ($60 \mu\text{g}/\text{m}^3$), tetrachloroethene (PCE; $30 \mu\text{g}/\text{m}^3$), and trichloroethene (TCE; $5 \mu\text{g}/\text{m}^3$). No indoor air or outdoor air samples exceeded these screening levels. The State of New York does not have any standards, criteria or guidance values for review of other compounds in indoor air or for evaluating sub-slab soil gas or soil vapor data with respect to VI. The NYSDOH SVI Guidance indicates that reasonable and practical actions should be taken to reduce exposures when indoor air levels are above background and in consideration of human health risks. To supplement screening levels provided in the NYSDOH SVI Guidance and evaluate whether a potential for human health risks exists, data were also compared to the following screening levels:

- Indoor air - USEPA Regional Screening Levels for Industrial air (RSLs) (TR = 1.0×10^{-6} , HI 0.1) dated May 2014.
- Sub-slab soil gas screening levels (SGSL) were calculated based on the USEPA May 2014 RSLs for industrial air using a conservative attenuation factor (α) of 0.1^8 (indoor air RSLs are multiplied by a factor of 10), as per USEPA draft vapor intrusion guidance (USEPA, 2002). The attenuation factor is a measure of how much subsurface concentrations are reduced when migrating into indoor air spaces.

7.1.2 Results

Indoor air and ambient air sample analysis results are summarized in Table 6 and sub-slab soil gas and soil vapor sample analysis results are summarized in Table 7. Laboratory data packages are provided in Appendix I. No compounds were detected in indoor air samples above the NYSDOH Air Guideline Values or the Occupational Safety and Health Administration Permissible Exposure Limits (OSHA PELs)⁹. VI data were further evaluated to determine whether compounds detected in indoor air above the RSLs for industrial air (or in soil gas above SGSL) are associated with background sources (ambient air

⁸ The USEPA Vapor Intrusion Screening Level (VISL) Calculator User's Guide bases generic screening levels on a conservative attenuation factor of 0.1 for the soil gas to indoor air pathway for use as a screening tool.

⁹ OSHA PELs are referenced to provide context for review of indoor air data as it pertains to compounds potentially in use at the facility.



or facility operations), or indicate current VI issue (complete pathway) or represent a potential future VI risk. In summary, data generated and evaluated for this VII indicate:

- Near building soil vapor sample locations (i.e., SV-27, SV-28, and SV-29) selected to delineate the extent of 2010 elevated soil vapor results at soil vapor location SV-22 (total VOCs were detected at $114,780 \mu\text{g}/\text{m}^3$) (Geosyntec, 2010) confirm that the elevated soil vapor levels measured in SV-22 are confined to a small area. Soil vapor levels at SV-27, SV-28, and SV-29 were orders of magnitude lower (total VOC levels of $13,345 \mu\text{g}/\text{m}^3$, $27,522 \mu\text{g}/\text{m}^3$, and $60,716 \mu\text{g}/\text{m}^3$, respectively) than at SV-22.
- The following compounds were detected in sub-slab soil gas above SGSL but were not detected in indoor air: benzyl chloride, chloroform, methyl tert-butyl ether (MTBE)¹⁰, naphthalene, TCE, and vinyl chloride. There is no current complete VI pathway. Butane, cyclohexane, isopropylbenzene, and n-hexane were the primary constituents detected in sub-slab soil gas. A review of vapor intrusion data associated with these compounds indicates:
 - Butane and cyclohexane were not detected above VI screening levels (SGSL and RSL) in sub-slab soil gas or in indoor air.
 - Isopropylbenzene was detected above the SGSL at SSV-03 ($3,800 \mu\text{g}/\text{m}^3$), and n-hexane was detected above its SGSL at SSV-04 ($5,100 \mu\text{g}/\text{m}^3$). Detection of isopropylbenzene and n-hexane above SGSL did not translate to indoor air levels above USEPA RSLs for industrial air in nearby indoor air samples IA-2 ($0.48 \mu\text{g}/\text{m}^3$ and $8.3 \mu\text{g}/\text{m}^3$, respectively) or IA-3 ($0.25 \mu\text{g}/\text{m}^3$ and $2.6 \mu\text{g}/\text{m}^3$, respectively). These low level detections in indoor air are likely associated with facility operations (i.e., auto exhaust and gasoline); therefore, there is no current complete VI pathway.
 - The maximum detected level of butane, cyclohexane, isopropylbenzene, and n-hexane in indoor air (all below RSLs for industrial air) were at IA-4 ($22 \mu\text{g}/\text{m}^3$, $4.4 \mu\text{g}/\text{m}^3$, $1.5 \mu\text{g}/\text{m}^3$, and $17 \mu\text{g}/\text{m}^3$, respectively). This location is more than 175 feet away from sub-slab soil gas locations where SGSL were exceeded for isopropylbenzene and n-hexane (SSV-03 and SSV-04, respectively). These indoor air detections are associated with products identified in the vicinity of this sample location and facility operations (i.e. container of butane, spray paints, auto exhaust, and gasoline) and are not indicative of active VI (incomplete VI pathway).
- 1,4-dichlorobenzene was detected in indoor air above its RSL for industrial air ($1.1 \mu\text{g}/\text{m}^3$) but was not detected in any sub-slab soil gas samples. These indoor air detections are attributed to facility operations as no sub-slab source for 1,4-dichlorobenzene was identified (background).
- The following compounds were detected in indoor air above RSLs for industrial air and were also detected in sub-slab soil gas: 1,2,4-trimethylbenzene, benzene, and ethylbenzene were detected at levels above the SGSL in soil-gas; and 1,3-Butadiene, m,p-xylenes, and o-xylene were detected at levels below the SGSL in soil gas. If these indoor air detections were associated with VI, the primary constituents detected in sub-slab soil gas (butane, cyclohexane, isopropylbenzene, and n-hexane) would be detected at higher levels in indoor-air. Therefore, these detections are attributed to facility operations (i.e., automobile exhaust, cigarette smoke and products stored in the building) and not indicative of active VI (background and incomplete VI pathway).

¹⁰ MTBE was detected in SV-27 at $71 \mu\text{g}/\text{m}^3$ and in SV-28 at $63 \mu\text{g}/\text{m}^3$ and in SSV-4 at $280 \mu\text{g}/\text{m}^3$ and SSV-6 at $790 \mu\text{g}/\text{m}^3$. SV-28 is immediately adjacent to the existing Phoenix Property UST while SSV-04 and SSV-6 are sub-slab soil-gas samples collected from beneath the Phoenix building proximal to Phoenix Property USTs.



Based on these VII data, detections of compounds listed above in indoor air above the RSLs for industrial air are associated with facility operations and not the result of a complete VI pathway to indoor air. These VII data also demonstrate a potential for future VI should there be a change in current Site conditions that creates a pathway.

7.2 LIF Results

As reported by Columbia Technologies, LLC (Appendix D), LIF responses indicating petroleum hydrocarbons were detected at depths as shallow as 2 feet bgs (LIF-35) and as deep as 57.06 feet bgs (LIF-35). Maximum response of 808%RE was observed at location LIF-37, at 15.32 feet bgs. Response above baseline values was observed at all four locations (LIF-34, LIF-35, LIF-36, and LIF-37).

7.3 Groundwater Sample Analytical Results

Groundwater samples were collected from the only shallow well on the Phoenix Property with no evidence of measureable LNAPL or the presence of a sheen (GAL-15). This well is screened across the water table and is located hydraulically upgradient to the other Phoenix Property wells, as shown on Figures 5 and 6. As discussed in Section 3.8, GAL-15 was initially purged using low flow purge techniques but due to slow recharge, the well was purged and sampled using volume average methods with a Teflon lined, polyethylene bailer. Field parameters were monitored upon sampling as follows:

Parameter	initial purging	upon sampling
Dissolved Oxygen (mg/L)	0	2.96
Redox Potential (mV)	-68	+ 40
pH (pH units)	7.05	7.64
Specific Conductance (ms/cm)	3.7	3.11
Temperature (deg C)	21.95	18.02
Turbidity (ntu)	200	110

The groundwater sample was analyzed for TCL VOCs, SVOCs and PCBs, TAL metals, and the Natural Attenuation Parameters (NAPs), as shown in Table 5B.

The laboratory sample analyses results were compared to NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1 Class GA (groundwater) standards and guidance values, collectively referred to as TOGS 1.1.1 GA criteria. The TOGS 1.1.1 GA criteria include constituents that have a groundwater standard in 6 NYCRR Part 703, as well as constituents that have NYSDEC guidance values. Based on a review of the TOGS 1.1.1 GA criteria documentation, Class GA standards are stated to be based on the protection of the use of groundwater as drinking water. However, groundwater in the near vicinity of the Phoenix Property is not utilized for drinking water purposes. In fact, the nearest groundwater source used



for drinking is expected to lie several miles from the Phoenix Property¹¹. Therefore, comparing the Phoenix Property groundwater data to the TOGS 1.1.1 GA criteria is a very conservative screening step since the exposure pathway used to develop the TOGS 1.1.1 GA criteria (groundwater as drinking water) is not applicable to the Phoenix Property. Nonetheless, the groundwater data have been compared to the TOGS 1.1.1 GA criteria.

7.3.1 Groundwater Volatile Organic Compounds (VOCs)

Twenty-four VOCs (including estimated “J” values below reportable quantitation limits) were detected in samples collected from GAL-15. Table 8 presents a summary of VOC detections as well as a comparison of the VOC detections to TOGS 1.1.1 GA criteria. Laboratory data packages are provided in Appendix I. Twelve VOCs were detected at concentrations greater than the TOGS 1.1.1 GA criteria. Of these, three (chloroethane, ethylbenzene, and trichloroethene) were detected at low levels and were only greater than the TOGS 1.1.1 GA criteria in the field duplicate. The remaining VOCs were detected at concentrations that exceeded the TOGS 1.1.1 GA criteria at levels ranging from 5.9 µg/L (1,1-dichloroethene, TOGS 1.1.1 GA criteria = 5 µg/L) to 130 µg/L (cis-1,2-dichloroethene in the field duplicate, TOGS 1.1.1 GA criteria = 5 µg/L) and these VOCs were:

Parameter	TOGS 1.1.1 GA criteria	GAL-15	
		Primary	Field Duplicate
1,1,1-Trichloroethane	5	16 J	30 J
1,1-Dichloroethane	5	29 J	50 J
1,1-Dichloroethene	5	5.9 J	10 J
1,2-Dichlorobenzene	3	6 J	9 J
Benzene	1	77	76
cis-1,2-Dichloroethene	5	70 J	130 J
Freon 113	5	18 J	32 J
Isopropylbenzene	5	8.4	11
Vinyl Chloride	2	11 J	18 J

units are ug/L

Thirteen VOCs were detected in up-gradient wells MW-15 and MW-16, installed as part of the Roehr off-site investigation, when sampled in November 2000 (SMC, Table 4) and six were detected at concentrations equal to or above the TOGS 1.1.1 GA criteria: benzene, ethylbenzene, xylenes, MTBE, cis-1,2-dichloroethene, and trichloroethene. Chlorinated VOCs and BTEX compounds have likewise been detected south of the Phoenix Property in MW-1 (Kleinfelder, 2011). The Roehr up-gradient wells have similar VOCs to GAL-15.

¹¹ Public drinking water supplies for Queens County are supplied by the New York Reservoir System (New York City 2013 Drinking Water Supply and Quality Report, New York City Department of Environmental Protection).



7.3.2 Semi-Volatile Organic Compounds (SVOCs)

Two SVOCs (including estimated “J” values below reportable quantitation limits) were detected in samples collected from GAL-15. Bis(2-ethylhexyl) phthalate was detected in the primary and the field duplicate sample at levels exceeding the TOGS 1.1.1 GA criteria (16 µg/L and 20 µg/L, respectively, TOGS 1.1.1 GA criteria = 5 µg/L) and pyrene was detected in the primary sample (but not in the field duplicate) at an estimated concentration of 1.9 µg/L (TOGS 1.1.1 GA criteria = 50 µg/L). Table 8 presents a summary of SVOC detections as well as a comparison of the SVOC detections to TOGS 1.1.1 GA criteria.

7.3.3 Polychlorinated Biphenyls (PCBs)

No PCBs were detected as shown in Table 8.

7.3.4 Metals and Cyanide

No cyanide was detected and seventeen metals were detected in the sample collected from GAL-15. Table 8 presents a summary of metal detections as well as a comparison of the metal detections to TOGS 1.1.1 GA criteria. Seven metals were detected in the primary or field duplicate sample at concentrations greater than the TOGS 1.1.1 GA criteria. Antimony was detected at low levels and was only greater than the TOGS 1.1.1 GA criteria in the field duplicate (2.9 µg/L and 3.3 µg/L, TOGS 1.1.1 GA criteria = 3 µg/L). The metals that were detected at concentrations that exceeded the TOGS 1.1.1 GA criteria ranged from an estimated concentration of thallium of 0.77 µg/L (TOGS 1.1.1 GA criteria = 0.5 µg/L) in the primary sample to 267 mg/L of sodium (TOGS 1.1.1 GA criteria = 20 mg/L) and these metals were:

Parameter	TOGS 1.1.1 GA criteria	GAL-15	
		Primary	Field Duplicate
Antimony	3	2.9	3.3
Arsenic	25	33.6	35.9
Iron ⁵	300	44800	45200
Magnesium	35000*	43200	44700
Manganese ⁵	300	1100	1100
Sodium	20000	259000	267000
Thallium	0.5*	0.77 J	0.95

*Where no standard value has been promulgated and placed into regulation, guidance values provided for a substance in NYSDEC TOGS 1.1.1 are shown and notated by * units are ug/L*

As this well was sampled by bailer using volume average methods, and the analyses represent unfiltered samples, the elevated levels of metals may represent contributions from suspended sediment.



7.3.5 Light Hydrocarbons

No ethene or ethane was detected. Methane was detected at concentrations of 1,100 µg/L and 1,200 µg/L in the primary and the field duplicate, respectively. There is no TOGS 1.1.1 GA criteria for methane.

7.3.6 Natural Attenuation Parameters (NAPs)

Four of eight NAPs considered (chloride, nitrate, sulfate, and total dissolved solids) have TOGS 1.1.1 GA criteria. Chloride exceeded the TOGS 1.1.1 GA criteria with a concentration of 715 mg/L (and 714 mg/L in the field duplicate, TOGS 1.1.1 GA criteria = 250 mg/L) and total dissolved solids exceeded the TOGS 1.1.1 GA criteria with a concentration of 2,320 mg/L (and 2,200 mg/L, TOGS 1.1.1 GA criteria = 500 mg/L). Table 8 presents a summary of detections as well as a comparison to the TOGS 1.1.1 GA criteria, where available.

An evaluation of natural attenuation in groundwater at the site was not possible as only a single well was able to be sampled using bailers and volume average methods due to low recharge.

7.4 Fill/Soil Sample Analytical Results

As discussed in Section 4, fill was encountered in all of the soil borings advanced on the Phoenix Property. The fill thickness ranged from approximately 20 feet at boring GAL-34 to five feet at borings GAL-14, and GAL-15. The geologic cross-sections shown on Figure 4 illustrate the distribution of fill across the Phoenix Property. Due to its widespread distribution, all but one soil sample (GAL-35 from 10-12 feet) at the Phoenix Property were collected within fill material. Depending on the source and date of placement of the fill may or may not contain impacts not associated with historic operations at the Phoenix Property. The presence of fill at the Phoenix Property is typical of the conditions found in many New York metropolitan area sites.

The fill/soil sample analyses results were compared to the Restricted Use Industrial Soil Cleanup Objectives for Public Health (RUSCO-Industrial) as presented in the New York Codes of Rules and Regulation (NYCRR) Subpart 375-6 (Table 6.8(b)) dated December 14, 2006.

Figure 7 summarizes the exceedances of the RUSCO-Industrial guidance values for fill/soil samples collected from borings GAL-34 through GAL-37. The analytical results are summarized in Table 9. Laboratory data packages are provided in Appendix I. All fill/soil samples were analyzed for TCL VOCs, SVOCs, and PCBs, TAL metals and cyanide, as shown in Table 5C. The following discusses the exceedances of the soil guidance values in fill/soil.



7.4.1 Volatile Organic Compounds (VOCs)

Seventeen VOCs (including estimated “J” values below reportable quantification limits) were detected in subsurface fill/soil samples collected at the Phoenix Property. There were no VOCs detected at concentrations exceeding the RUSCO-Industrial guidance values.

7.4.2 Semi-Volatile Organic Compounds (SVOCs)

Eighteen SVOCs (including estimated “J” values below reportable quantification limits) were detected in subsurface fill/soil samples collected of which three SVOCs exceeded the RUSCO-Industrial guidance values.

The following three SVOCs were detected at concentrations exceeding the RUSCO-Industrial guidance values in one or more fill/soil samples:

- Benzo(a)anthracene (RUSCO-Industrial Guidance Value – 11 mg/kg): one exceedance in GAL-34 (18-20 feet) at a concentration of 20 mg/kg
- Benzo[a]pyrene (RUSCO-Industrial Guidance Value – 1.1 mg/kg): 1.4 mg/kg in GAL-35 (5-7 feet) to 12 mg/kg in GAL-34 (18-20 feet)
- Dibenz[a,h]anthracene (RUSCO-Industrial Guidance Value – 1.1 mg/kg): two exceedances in GAL-34 at 5-7 feet and 18-20 feet at concentrations of 1.6 mg/kg and 3.6 mg/kg, respectively

7.4.3 Polychlorinated Biphenyls (PCBs)

There were no PCBs detected in any of the soil samples.

7.4.4 Metals and Cyanide

There were no exceedances of the RUSCO-Industrial guidance values.

7.5 LNAPL Investigation Results

The presence of LNAPL was observed in eleven of the twelve monitoring wells on the Phoenix Property, in the two wells monitored on 37-80 Review Avenue, in the three wells monitored on 38-20 Review Avenue, and in two of the four wells monitored on 38-22 Review Avenue (Table 3, Figures 5 and 6). LNAPL samples were collected from all wells with LNAPL except for GAL-25 and GAL-34, which had insufficient volume for sampling. Samples were collected from MW-54 and MW-56 over two sampling events as there was insufficient volume present in the first sampling event (Table 5D).

This section presents a summary of the LNAPL monitoring measurements and sample analyses results. As there are no published New York State numerical criteria or screening levels for LNAPL, this section focuses on describing the general distribution of LNAPL and the chemical constituents that comprise the LNAPL. LIF profiles were collected (Section 3.4) by Columbia Technologies Inc. (Appendix D) prior to collecting soil borings in an effort to provide a semi-quantitative measure of the presence of petroleum



hydrocarbons in the soil column, if present. Observations made during collection of soil samples are noted on the boring logs provided in Appendix E. Laboratory data packages are provided in Appendix I.

The presence of LNAPL was further assessed through the gauging of wells on August 18 and September 3, 2014 in the eight wells previously installed on the Phoenix Property, the four new wells installed on the Phoenix Property, and in nine wells on adjacent properties (Figures 5 and 6), summarized in Table 3. LNAPL was observed in all wells on the Phoenix Property, except upgradient well GAL-15, but was present only in trace amounts in GAL-25 and GAL-34. Apparent LNAPL thicknesses on the Phoenix Property where LNAPL was observed ranged from 0.01 foot (MW-25 in August 2014) to 6.46 feet (GAL-35 in September 2014). Consistent with previous gauging measurements, LNAPL was present in the two wells monitored on 37-80 Review Avenue (GAL-08 and GAL-16R); in MW-6 and MW-6S but not in MW-1 or MW-38 on 38-22 Review Avenue; and in the three wells monitored on 38-20 Review Avenue (MW-54, MW-55, and MW-56).

7.5.1 *Physiochemical Parameters*

The LNAPL samples were analyzed for a number of physiochemical parameters by TOT, including:

API gravity
Density
Flash Point
Heat Of Combustion
Interfacial Tension
Specific Gravity
% Sulfur
Surface Tension
% Sediment
Viscosity

Table 10 presents a summary of the analytical results for these parameters. The parameters % sediments, % sulfur, BTU, and flashpoint are useful parameters when evaluating LNAPL recycling and/or disposal options. Specific gravity¹² (the ratio of the density of the LNAPL to that of water) was used to calculate a corrected groundwater elevation (Table 3). Interfacial tension and surface tension can be useful when estimating specific free-product volumes presented.

7.5.2 *Chemical Parameters*

Total organic halides (TOX) is a useful parameter when evaluating LNAPL recycling and/or disposal options and was only detected at an estimated concentration of 86.7 mg/kg in GAL-17.

¹² API gravity is the specific gravity adjusted for the oil industry.



The VOC content of LNAPL varied across the wells with total VOCs ranging from 50.51 mg/kg in GAL-26 to 1,199 mg/kg in MW-56. The highest VOC concentrations were measured in MW-56, GAL-32, and GAL-08. Table 11 presents a summary of detected VOCs in LNAPL, which is predominantly methyl cyclohexane, cyclohexane, and isopropylbenzene.

The SVOC content of LNAPL varied across the wells with total SVOCs ranging from non-detect (GAL-17 and GAL-33) to 2,533 mg/kg (MW-6S). The highest SVOC concentrations were measured in MW-6S, MW-55, GAL-36, and GAL-08. Table 11 presents a summary of detected SVOCs in LNAPL, which were predominantly PAHs (such as phenanthrene, benzo[a]anthracene, and benzo[a]pyrene).

PCBs (PCB Aroclors) were detected in LNAPL only in GAL-16R on the RAD II Property. Two Aroclors were detected: Aroclor-1248 (4.8 mg/kg) and Aroclor-1260 (3.8 mg/kg). No PCBs were detected in LNAPL collected on the Phoenix Property or otherwise as part of the RI.

Table 11 presents a summary of metals detected in LNAPL. Total metal concentrations ranged from 3.31 mg/kg in GAL-37 to 372.01 mg/kg in MW-6S and the highest concentration of metals was detected in MW-6S and GAL-16R (predominantly calcium, aluminum, and potassium). Cyanide was detected only in MW-6S. Arsenic and chromium were detected in all LNAPL samples.

7.5.3 LNAPL Transmissivity

LNAPL transmissivities for wells on the Phoenix Property with sufficient LNAPL for testing were calculated from the baildown test results (Section 3.10) using the following methods:

- Bouwer & Rice (1976)
- Cooper & Jacob (1946)
- Cooper Bredehoeft & Papadopulos (1967)

Mean LNAPL transmissivities are interpreted to range from 0.73 ft²/day in GAL-32 to 14.59 ft²/day in GAL-37 and are summarized in Table 4. The data collected are provided in Appendix F.



8.0 QUALITATIVE EXPOSURE ASSESSMENT

The objective of the qualitative human health exposure assessment (QHHEA) is to identify potential receptors to contaminants that are present or migrating from the Phoenix Property. The identification of the exposure pathway describes the route that the contaminant takes to travel from the source to the receptor. An identified pathway indicates that the *potential* for exposure is present, but does not confirm that exposures to receptors actually occur.

The RI activities completed for the Phoenix Property are sufficient to complete a QHHEA and the sampling results were used in an effort to evaluate if there are any health risks by characterizing the exposure setting, identifying the exposure pathways, and evaluating contaminant fate and transport. This QHHEA was prepared in accordance with Appendix 3B and Section 3.3(b)8 of the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.

8.1 Potential Exposure Pathways

An exposure pathway initiates with a source and mechanism of contaminant release followed by the contamination of an environmental media and a potential for contact with a receptor. A complete exposure pathway therefore requires:

- A source of contamination
- A point of potential contact with the environmental media (i.e. exposure point)
- An exposure route. Three potential primary routes exist by which chemicals can enter the body:
 - Ingestion
 - Inhalation of vapors and particulates
 - Dermal contact
- A receptor population

An exposure pathway is considered complete when all of the elements of a complete exposure pathway are documented. If an exposure pathway is not complete because one or more of these elements are absent, then no risk exists.

8.1.1 Nature, Extent, Fate, and Transport of Contaminants

Based on the results of the Phoenix Property RI, the contaminants of concern are:

- Soil:
 - Three PAHs were found in excess of applicable SCOs. The PAHs (benzo(a)anthracene, benzo(a)pyrene, and dibenz(a,h)anthracene) exceed the industrial worker public health protection SCO.



- Groundwater:
 - Concentrations of VOCs, metals, and two SVOCs in excess of TOGS 1.1.1 GA criteria were detected in GAL-15.
- Indoor and Ambient Air:
 - VOCs are detected in indoor air at low concentrations. No detected concentrations of VOCs are in excess of the applicable NYSDOH air guideline values or OSHA PELs.
 - VOCs are detected in ambient air at low concentrations. No detected concentrations of VOCs in ambient air are in excess of the applicable NYSDOH air guideline values or OSHA PELs.
- Sub-Slab Soil Gas:
 - VOCs are detected in sub-slab soil gas

8.1.2 Potential Exposure Points

Groundwater

Concentrations of VOCs and metals were detected in groundwater at concentrations exceeding TOGS 1.1.1 GA criteria. Groundwater flows generally southward across the Phoenix Property. Groundwater in the area is not used as a drinking water supply. Groundwater is anticipated to flow toward Newtown Creek. VOCs are not expected to migrate to soil vapor due to the presence of LNAPL over much of the Phoenix Property.

Soil

Concentrations of some PAHs exceeded the industrial worker public health protection SCOs, and two VOCs, some PAHs, and lead exceeded the protection of groundwater SCOs. Because the Phoenix Property is covered by impermeable surfaces (building and pavement) limiting infiltration, and because of the presence of LNAPL overlying groundwater over much of the Phoenix Property, contaminants in the fill/soil are not expected to move to groundwater. VOCs have the potential to migrate into soil vapor.

LNAPL

The presence of LNAPL was observed in eleven of the twelve monitoring wells on the Phoenix Property. Contaminants in the LNAPL may migrate to groundwater via dissolution, to soils in the smear zone via sorption, and VOCs may migrate to soil vapor via volatilization.

Soil Vapor

Concentrations of VOCs have been detected in soil vapor and sub-slab soil gas. The VII data indicate that there is no complete VI pathway because the air samples collected from inside the Phoenix Building do not exceed applicable standards and guidance values. In addition, the VOCs detected in indoor air samples inside the Phoenix Building appear to be related to indoor sources and not vapor intrusion.



8.2 Receptor Populations

Current Phoenix Property Receptors – The current potential receptors on the Phoenix Property include industrial workers, trespassers, and authorized visitors. Any visitation by authorized visitors would be limited in both frequency and duration, resulting in a limited exposure. While it is possible that an adult or adolescent trespasser could access the Phoenix Property and therefore be considered potential receptors, access to the Phoenix Property is restricted by partial security fencing and continuous operations. Therefore potential trespassers to the Phoenix Property are likely to be deterred, and the frequency of exposure to the potential trespasser scenario would be limited.

Future Phoenix Property Receptors – Additional potential future receptors include construction workers and utility workers performing construction work and/or subsurface maintenance at the Phoenix Property. This work is expected to be completed in accordance with a Site Management Plan, utilizing appropriate safety procedures including air monitoring, dust control, and personal protective equipment to mitigate any potential exposure to the future construction worker and/or utility worker involved with subsurface disturbance or excavation.

Off-Phoenix Property Receptors – Potential receptors within a 0.25-mile radius of the Phoenix Property include industrial, commercial and construction workers, pedestrians, and visitors to the nearby graveyard (Calvary Cemetery).

8.3 Existence of Human Health Exposure

Current – Because the Phoenix Property is covered with pavement and existing structures under current conditions, there are no potential exposure routes for the dermal contact, ingestion, and inhalation via fugitive dust exposure routes for soil. Groundwater is not exposed at the Phoenix Property (and LNAPL overlies groundwater over most of the Phoenix Property), and the Phoenix Property is served by public water supply. There is no potential for exposure to groundwater. LNAPL is not exposed at the Phoenix Property. Low level concentrations of VOCs are present in the ambient air. Low level concentrations of VOCs are present in indoor air and are likely related to materials used in on-going business activities on the Phoenix Property. The Phoenix Property is protected with partial security fencing and continuously operates, which would deter any potential trespassers and limiting any potential exposures. While visitors have the potential to enter the Phoenix Property, this is expected to be a rarely occurring event with limited potential for exposure. No current human health exposure scenario exists related to subsurface contamination at the Phoenix Property.

Future – There is a potential complete exposure pathway from contaminated subslab and subsurface media to construction workers and/or utility workers during any future construction/excavation activities on the Phoenix Property. The construction/utility workers could potentially be exposed subsurface soils, shallow groundwater, and LNAPL via ingestion, dermal contact, and the inhalation of dust and vapors.



However, any potential exposure to construction/utility workers is expected to be mitigated using Site safety procedures, including the appropriate personal protective equipment (PPE), air monitoring and dust control as outlined in a Site Management Plan. An additional exposure is the potential inhalation of VOCs in indoor air in the building on the Phoenix Property via a potential future VI pathway should there be a change in current Site conditions that creates a pathway.

8.4 Overall Human Health Exposure Assessment

Based on this analysis, there are three potential exposure pathways: inhalation of volatiles in indoor air, direct contact with subsurface media during excavation/construction activities, and inhalation of on-property-related dust by off-property receptors during construction activities. The sensitive receptors for each exposure route are discussed below.

For the inhalation of volatiles in air, the receptors include industrial workers, visitors, and trespassers. However, for the visitor, such visits will be rare in nature with limited potentiation for exposure. For trespassers, the presence of security fencing as well as continuous operations on the Phoenix Property would limit the number of trespassing events. In addition, while VOCs have been detected at low levels in indoor air, the presence of these VOCs are attributable to current facility operations at the Phoenix Property. There is no current exposure to vapor intrusion. Therefore, the primary potential exposure pathway for the inhalation of VOCs in indoor air is the potential for future vapor intrusion impacting authorized workers on the Phoenix Property should there be a change in current Site conditions that creates a pathway..

For the direct contact with subsurface soil and groundwater during excavation/construction activities, the sensitive populations include construction workers and utility workers. However, potential exposures to construction/utility workers would be expected to be mitigated using appropriate safety procedures, including PPE, air monitoring, and dust controls. Potential exposures would be expected to be limited due to the short-term nature of excavation and construction activities.

For the inhalation of dust related to the Phoenix Property during future construction/excavation activities, the sensitive populations include off-property industrial, commercial, and construction workers, pedestrians, and visitors to the nearby graveyard. However, off-property exposure to contaminated dust from on-property-related construction/excavation activities on the Phoenix Property would be expected to be addressed through dust controls and the appropriate health and safety plan thereby limiting exposure to off-property receptors.



9.0 CONCEPTUAL SITE MODEL

The Phoenix Property consists of an approximately 1.8 acre parcel within a highly industrialized area of Long Island City, Queens, New York and is approximately 350 feet northeast of Newtown Creek. The entire Phoenix Property and surrounding properties have been used for various industrial purposes, including petroleum refineries, chemical manufacturing, warehouse/storage, and waste transfer since the mid-1800's, and the Phoenix Property was historically the northwestern-most portion of the FPOW, which encompassed approximately 18.51 acres to the south and east of the Phoenix Property.

The surficial material on the Phoenix Property and in the vicinity of the Phoenix Property is composed of man-made urban fill and unconsolidated natural glacial and alluvium deposits underlain by a lower clay of the Upper Cretaceous Raritan Formation. The Phoenix Property lies between a local topographic high to the northeast and Newtown Creek to the south-southwest. Depth to groundwater on the Phoenix Property during the RI ranged from 12.14 feet below grade at GAL-34 to 19.62 feet below grade GAL-35 (under LNAPL) and the general direction of groundwater flow beneath the Phoenix Property is to the south, and relatively higher groundwater elevations were observed at GAL-34 and MW-38. Groundwater is anticipated to flow toward Newtown Creek.

Public drinking and industrial water for Queens County are supplied primarily by the New York City reservoir system; groundwater within the vicinity of the Phoenix Property is not used for potable purposes and likely will not be used in the future as a potable source. While groundwater beneath the Phoenix Property may ultimately discharge in Newtown Creek, the creek has been substantially degraded by approximately a century of past unpermitted discharges upstream and downstream of the Site and has been given a SD classification by the NYSDEC, which is the lowest classification for saline surface water in New York State. One on-property well (GAL-15) could be sampled for groundwater, which indicated impacts for VOCs (primarily chlorinated VOCs and BTEX compounds). Previous sampling in upgradient Roehr wells (MW-15 and MW-16 in November, 2000) and in down and side-gradient well MW-1 (April 2009-January 2011) likewise indicated impacts for chlorinated VOCs and BTEX compounds.

Samples from the soil and fill at the Phoenix Property (all but one of the samples were collected from fill), indicate exceedances of the RUSCO-Industrial guidance values for three PAHs. Exposure to these soils is limited to potential future exposures by construction workers, which may be mitigated by standard construction health and safety practices.

The presence of LNAPL was observed in eleven of the twelve monitoring wells on the Phoenix Property in the two wells monitored on 37-80 Review Avenue, in the three wells monitored on 38-20 Review Avenue, and in two of the four wells monitored on 38-22 Review Avenue (Table 3). LNAPL transmissivities for wells on the Phoenix Property with sufficient LNAPL for testing were calculated from the baildown tests and mean LNAPL transmissivities ranged from 0.73 ft²/day in GAL-32 to 14.59 ft²/day in GAL-37. The



VOC content of LNAPL on the Phoenix Property varied from 50.51 mg/kg to 862 mg/kg and the SVOC content of LNAPL ranged from non-detect to 1,331 mg/kg. Total metal concentrations ranged from 3.31 mg/kg to 66.32 mg/kg on the Phoenix Property. Exposure to the LNAPL is limited to potential future exposures by construction workers, which would be mitigated by standard construction health and safety practices.

While there are detections of compounds in the soil gas and vapor above the RSLs for industrial air, there is no current complete VI pathway to indoor air.



10.0 SUMMARY

The RI field work included activities specified in the approved RI/FFS Work Plan. RI field activities were conducted March-September 2014. In summary, the field work included the following activities:

- A vapor intrusion investigation including a building Survey and collection of
 - two outdoor air samples
 - four indoor air samples
 - eight sub-slab vapor samples
 - three soil vapor samples
- Collection of four Laser Induced Fluorescence (LIF) screening borings
- Soil sampling in the unsaturated zone from four soil borings
- Installation of four new monitoring wells
- Two synoptic rounds of groundwater and LNAPL gauging from 21 monitoring wells on and off property
- Collection of one groundwater sample
- Collection of LNAPL samples from 16 wells
- Bail-down tests in nine wells on the Phoenix Property
- Phoenix Property boundary and well surveys
- Indoor air survey and sampling for methane¹³.

Overall, the RI has met the objective of determining the nature and extent of COPC and potential impacts to the public health, welfare, or the environment caused by the release or potential release of COPC at or from the Phoenix Property.

Based on the results of the RI, it appears that sufficient data has been collected to prepare a Technical Memorandum to present Remedial Action Objectives and a short-list of potential remedial alternatives prior to completion of the Focused Feasibility Study.

¹³ Not conducted as part of the RI. Methane was not detected in any sample above the analytical laboratory reporting limit consistent with the results of the VII.



11.0 REFERENCES

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Table 1
Vapor Intrusion Sample Summary
Phoenix Property
37-88 Review Avenue
Long Island City, Queens, New York

Sample Type	Sample ID	Sample Location	Rationale	Current Tenant Use
Indoor Air	IA-1	Southcentral portion of the building	Assess potential for human exposure in office area	Office area; storage of office supplies (co-located with sub-slab soil gas sample SSV-7)
	IA-2	Northern portion of the building (hallway adjacent to restroom)	Assess potential for human exposure in working area.	Hallway to restroom (co-located with sub-slab soil gas sample SSV-4)
	IA-3	Central portion of the building	Assess general indoor air quality within the building	Storage of theatre props
	IA-4	Southern portion of building	Assess general indoor air quality within the building	Storage of various construction equipment and equipment maintenance materials
Ambient Air	OA-1 OA-2	Parking area	Assess ambient air background and downwind conditions at the Phoenix Property	Parking of vehicles and trucks
Sub-Slab Soil Gas	SSV-1	Southern portion of building	Investigate sub-slab conditions near railroad tracks in the southern portion of the building. Co-located with GAL-34.	Office desk, storage of cake and dessert products
	SSV-2	Southcentral portion of building	Investigate sub-slab conditions near drainage trench in the southern portion of the building. Co-located with GAL-35.	Storage of various food products
	SSV-3	Northcentral portion of building	Investigate sub-slab conditions near drainage trench in the northern portion of the building. Co-located with GAL-36.	Storage of bottling and maintenance equipment
	SSV-4	Northern portion of the building	Investigate sub-slab conditions near SV-22 and potential impacts from diesel USTs	Hallway to restroom (co-located with indoor air sample IA-2)
	SSV-5	Northern portion of the building	Investigate sub-slab conditions near SV-22 and potential impacts from diesel USTs	Storage of theatre props
	SSV-6	Northcentral portion of building	Investigate sub-slab conditions near SV-22 and potential impacts from diesel USTs	Hallway in front of stairwell to office portion of building
	SSV-7	Southcentral portion of the building	Investigate sub-slab conditions within the office area.	Office area; storage of office supplies (co-located with indoor air sample IA-1)
	SSV-8	Loading Dock	Added to sampling program at request of NYSDEC	Loading of materials from occupied space within building to vehicles for transport
Soil-Vapor	SV-27	Central portion of the parking lot	Delineate soil vapor conditions at SV-22	Parking of vehicles and trucks
	SV-28	Northern portion of the parking lot, adjacent to diesel USTs	Delineate soil vapor conditions at SV-22 and investigate potential impacts from diesel USTs	
	SV-29	Northern portion of parking lot/ramp	Delineate soil vapor conditions at SV-22	

Notes:

Tenant occupancy and use current as of building survey and sampling activities in March and April 2014.

IA - Indoor Air

NYSDEC - New York State Department of Environmental Conservation

OA - Ambient Air

SSV - Sub-Slab Soil Gas

SV - Soil Vapor

USTs - Underground storage tanks

checked by HAL 9/30/14

**TABLE 2
MONITORING WELL CONSTRUCTION INFORMATION**

Phoenix Property
37-88 Review Avenue
Long Island City, New York

Monitoring Point ID	Date of Installation	Ground Surface Elevation (FT - MSL)	Reference Elevation ¹ (FT - MSL)	Well Diameter & Material	Well Depth (FT-BGS)	Screen Length (FT)	Top of Screen Elevation (FT - MSL)	Bottom of Screen Elevation (FT - MSL)
RADII (37-80 Review Ave)								
GAL-03	<i>not located</i>							
GAL-08	11/7/2003	24.99	24.46	4 Inch Schedule 40 PVC	28.00	15.00	11.99	-3.01
GAL-16R	7/18/2008	17.01	18.98	2 Inch Schedule 40 PVC	27.00	16.00	6.01	-9.99
PHOENIX (37-88 Review Ave)								
GAL-14	6/27/2004	16.27	15.85	4 Inch Schedule 40 PVC	30.00	20.00	6.27	-13.73
GAL-15	6/26/2004	21.78	21.43	4 Inch Schedule 40 PVC	28.00	15.00	8.78	-6.22
GAL-17	6/26/2004	16.33	15.82	4 Inch Schedule 40 PVC	27.00	15.00	4.33	-10.67
GAL-25	4/03/2005	16.39	15.76	4 Inch Schedule 40 PVC	27.00	20.00	9.39	-10.61
GAL-26	4/03/2005	15.83	15.55	4 Inch Schedule 40 PVC	28.00	20.00	7.83	-12.17
GAL-32	2/23/2013	14.13	13.77	2 Inch Schedule 40 PVC	25.00	20.00	9.13	-10.87
GAL-33	2/23/2013	16.49	15.74	2 Inch Schedule 40 PVC	28.00	20.00	8.49	-11.51
GAL-34	4/18/2014	16.55	15.98	2 Inch Schedule 40 PVC	28.00	20.00	8.55	-11.45
GAL-35	4/17/2014	16.57	16.00	2 Inch Schedule 40 PVC	28.00	20.00	8.57	-11.43
GAL-36	4/16/2014	16.65	16.28	2 Inch Schedule 40 PVC	28.00	20.00	8.65	-11.35
GAL-37	4/21/2014	16.55	16.21	2 Inch Schedule 40 PVC	28.00	20.00	8.55	-11.45
MW-8	9/12/2000	17.17	16.96	2 Inch Schedule 40 PVC	24.00	15.00	8.17	-6.83
WASTE MANAGEMENT (38-22 Review Ave)								
MW-6 ²	1/09/2008	12.23	11.80	4 Inch Schedule 40 PVC	23.00	5.00	-6.20	-11.20
MW-6S	4/27/2012	12.41	12.15	2 Inch Schedule 40 PVC	14.00	10.00	8.15	-1.85
MW-1 ²	1/06/2009	13.78	13.49	4 Inch Schedule 40 PVC	18.00	12.00	7.49	-4.51
MW-37	<i>not accessible</i>							
MW-38	4/26/2012	14.43	13.97	2 Inch Schedule 40 PVC	20.00	15.00	8.97	-6.03
38-20 Review Ave								
MW-54	6/12/2012	11.29	11.06	4 Inch Schedule 40 PVC	25.00	20.00	6.06	-13.94
MW-55	6/09/2012	11.19	11.06	4 Inch Schedule 40 PVC	25.00	20.00	6.06	-13.94
MW-56	6/09/2012	15.54	15.22	2 Inch Schedule 40 PVC	30.00	20.00	5.22	-14.78

Notes:

¹ - Reference Elevation - top of inner casing. Reference elevation for wells located at 38-22 Review Avenue and 38-20 Review Avenue were obtained from Table 1 from the Site Status Update Report, August to October 2012 prepared by Kleinfelder.

² - Information obtained from the Interim Site Characterization Report, August 10, 2009 prepared by Kleinfelder.

FT - BTIC - feet below top of inner casing

FT - MSL - feet mean sea level

Checked by HAL 9/30/14

Table 3
Groundwater and LNAPL Gauging
 August and September 2014
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

Monitoring Point ID	Date	Reference Elevation ¹ (FT. MSL)	Depth to Top of LNAPL (FT. BTIC)	Depth to Groundwater (FT. BTIC)	Apparent LNAPL Thickness (FT)	Specific Gravity (g/cm ³)	Corrected GW Elevation ² (FT)
RADII (37-80 Review Ave)							
GAL-08	8/18/2014	24.46	18.08	20.05	1.97	0.9045	6.19
	9/03/2014	24.46	18.19	19.95	1.76	0.9045	6.10
GAL-16R	8/18/2014	18.98	16.15	21.65	5.50	0.9004	2.28
	9/03/2014	18.98	16.18	22.65	6.47	0.9004	2.16
GAL-03	<i>not located</i>						
PHOENIX (37-88 Review Ave)							
GAL-14	8/18/2014	15.85	13.00	15.85	2.85	0.9030	2.57
	9/03/2014	15.85	12.95	14.97	2.02	0.9030	2.70
GAL-15	8/18/2014	21.43	Not Present	14.50	-	NA	6.93
	9/03/2014	21.43	Not Present	15.48	-	NA	5.95
GAL-17	8/18/2014	15.82	12.79	16.95	4.16	0.9016	2.62
	9/03/2014	15.82	12.86	16.91	4.05	0.9016	2.56
GAL-25 ⁴	8/18/2014	15.76	13.21	13.22	0.01	0.9044	2.55
	9/03/2014	15.76	Sheen ⁴	13.27	-	NA	2.28
GAL-26	8/18/2014	15.55	12.95	16.91	3.96	0.9044	2.22
	9/03/2014	15.55	12.69	16.95	4.26	0.9044	2.45
GAL-32	8/18/2014	13.77	11.25	14.90	3.65	0.9160	2.21
	9/03/2014	13.77	11.35	14.40	3.05	0.9160	2.16
GAL-33	8/18/2014	15.74	12.85	18.92	6.07	0.9008	2.29
	9/03/2014	15.74	12.90	18.82	5.92	0.9008	2.25
GAL-34 ³	8/18/2014	15.98	12.12	12.14	0.02	0.9160	3.86
	9/03/2014	15.98	12.25	12.27	0.02	0.9160	3.73
GAL-35	8/18/2014	16.00	13.17	19.10	5.93	0.9010	2.24
	9/03/2014	16.00	13.16	19.62	6.46	0.9010	2.20
GAL-36	8/18/2014	16.28	13.32	18.42	5.10	0.9015	2.46
	9/03/2014	16.28	13.39	18.60	5.21	0.9015	2.38
GAL-37	8/18/2014	16.21	13.32	15.80	2.48	0.9040	2.65
	9/03/2014	16.21	13.35	16.32	2.97	0.9040	2.57
MW-8	8/18/2014	16.96	14.00	19.54	5.54	0.9021	2.42
	9/03/2014	16.96	14.07	19.25	5.18	0.9021	2.38
WASTE MANAGEMENT (38-22 Review Ave)							
MW-6	8/18/2014	11.80	10.15	10.40	0.25	0.9050	1.63
	9/03/2014	11.80	10.07	10.98	0.91	0.9050	1.64
MW-6S	8/18/2014	12.15	9.60	10.80	1.20	0.9371	2.47
	9/03/2014	12.15	9.77	10.40	0.63	0.9371	2.34
MW-1	8/18/2014	13.49	Not Present	10.74	NA	NA	2.75
	9/03/2014	13.49	Not Present	10.96	NA	NA	2.53
MW-37	<i>not located</i>						
MW-38	8/18/2014	13.97	Not Present	10.75	NA	NA	3.22
	9/03/2014	13.97	Not Present	10.86	NA	NA	3.11
38-20 Review Ave							
MW-54	8/18/2014	11.06	9.25	9.65	0.40	0.9042	1.77
	9/03/2014	11.06	9.40	9.85	0.45	0.9042	1.62
MW-55	8/18/2014	11.06	9.44	15.05	5.61	0.8988	1.05
	9/03/2014	11.06	9.48	15.07	5.59	0.8988	1.01
MW-56	8/18/2014	15.22	14.42	14.60	0.18	0.8542	0.77
	9/03/2014	15.22	14.32	17.72	3.4	0.8542	0.40

Notes:

¹ - Reference Elevation - top of inner casing. Reference elevation for wells located at 38-22 Review Avenue and 38-20 Review Avenue were obtained from Table 1 from the Site Status Update Report, August to October 2012 prepared by Kleinfelder.

² - Corrected GW Elevation-calculated using the following formula (measuring point elevation - depth to water) + (LNAPL thickness * Specific Gravity)

³ - Specific gravity value for GAL-25 based on result from surrounding well GAL-37 and GAL-34 based result from surrounding well GAL-32.

⁴ - A sheen was observed on the oil/water interface probe.

FT. - BTIC - feet below top of inner casing

FT. - MSL - feet mean sea level

NM - Not Measured

NA - Not Applicable

LNAPL - light non-aqueous phase liquid

August: Checked by JLH: 8/27/2014

September: Checked by HAL: 9/30/14

TABLE 4
Baildown Test Results Summary
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

Monitoring Point ID	Test Date	Apparent LNAPL Thickness (FT)	LNAPL Transmissivity - Bouwer & Rice (FT ² /D)	LNAPL Transmissivity - Cooper & Jacob (FT ² /D)	LNAPL Transmissivity - Cooper, Bredehoeft and Papadopulos (FT ² /D)	Mean LNAPL Transmissivity (FT ² /D)
GAL-14	9/08/2014	3.16	2.94	2.36	3.27	2.86
GAL-17	9/04/2014	4.09	12.19 ¹	6.89	5.89	6.39
GAL-26	9/08/2014	2.61	0.93	0.64	1.48	1.02
GAL-32	9/03/2014	3.05	0.46	0.27	1.47	0.73
GAL-33	9/04/2014	5.70	3.38	2.90	3.22	3.17
GAL-35	9/04/2014	5.75	3.92	2.78	2.58	3.09
GAL-36	9/05/2014	4.88	5.33	5.06	20.09 ¹	5.20
GAL-37	9/04/2014	2.91	10.07	13.05	20.66	14.59
MW-8	9/05/2014	5.36	6.30	6.68	8.73	7.24

Notes:

¹ - Analysis method not included in mean transmissivity

FT - feet

FT²/D - feet squared per day

LNAPL - light non-aqueous phase liquid

Checked by SDM

TABLE 5A
Indoor/Ambient Soil Vapor/Sub-Slab Air Sampling and Analyses Summary
 March-April 2014
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

PARAMETERS		
Sample Point ID	Sample date	TCL VOCs
		EPA TO-15
PHOENIX (37-88 Review Ave)		
IA-1	3/24/2014	x
IA-2	3/24/2014	x
IA-3	3/24/2014	x
IA-4	3/24/2014	x
OA-1	3/24/2014	x
OA-2	3/24/2014	x
SSV-01	3/26/2014	x
SSV-07	3/26/2014	x
SSV-03	3/26/2014	x
SSV-04	3/25/2014	x
SSV-05	3/25/2014	x
SSV-06	3/25/2014	x
SSV-02	3/26/2014	x
SSV-08	3/26/2014	x
SV-27	4/11/2014	x
SV-28	4/11/2014	x
SV-29	4/11/2014	x

Abbreviations:

IA - Indoor Air

OA - Outdoor Air

TCL - Target Compound List

VOCs - Volatile Organic Compounds

Checked by: AMZ 9/30/2014

TABLE 5B
Groundwater Sampling and Analyses Summary
 August 2014
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

PARAMETERS															
Sample Point Well ID	Sample date	TCL VOCs + 10 TICs	TCL SVOCs + 20 TICs	TCL PCBs	TAL Metals	Cyanide	Alkalinity	TOC	DOC	Nitrate	Sulfate	CO2	Chloride	TDS	MEE
		SW-846 8260C	SW-846 8270D	SW-846 8082	SW-846 6020A/7470A	SW-846 9012B	SM 2320B	SW-846 9060A	SW-846 9060A Diss	EPA 353.2	ASTM D516	SM 4500 CO2 D	SM 4500 Cl E	SM 2540C (Calc)	RSK_175
PHOENIX (37-88 Review Ave)															
GAL-15	8/20/2014	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Abbreviations:

CO2 - Carbon Monoxide
 DOC-Dissolved Organic Carbon
 MEE-Methane, Ethane, Ethene
 PCBs - Polychlorinated Biphenyls
 SVOCs - Semivolatile Organic Compounds
 TAL - Target Analyte List
 TCL - Target Compound List
 TDS - Total Dissolved Solids
 TICs - Tentatively Identified Compounds
 TOC - Total Organic Carbon
 TSS-Total Dissolved Solids
 VOCs - Volatile Organic Compounds

Checked by: AMZ 9/30/2014

TABLE 5C
Soil Sampling and Analyses Summary

April 2014
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

PARAMETERS							
Sample Point Well ID	Sample date	Sample depth	TCL VOCs + 10 TICs	TCL SVOCs + 20 TICs	TCL PCBs	TAL Metals	Cyanide
			SW-846 8260C	SW-846 8270D	SW-846 8082	SW-846 6010C/7471B	SW-846 9012B
PHOENIX (37-88 Review Ave)							
GAL-34	4/10/2014	0-2 ft bgs	x	x	x	x	x
	4/18/2014	5-7 ft bgs	x	x	x	x	x
	4/18/2014	18-20 ft bgs	x	x	x	x	x
GAL-35	4/10/2014	0-2 ft bgs	x	x	x	x	x
	4/16/2014	5-7 ft bgs	x	x	x	x	x
	4/16/2014	10-12 ft bgs	x	x	x	x	x
GAL-36	4/9/2014	0-2 ft bgs	x	x	x	x	x
	4/16/2014	5-7 ft bgs	x	x	x	x	x
	4/16/2014	10-12 ft bgs	x	x	x	x	x
GAL-37	4/9/2014	0-2 ft bgs	x	x	x	x	x
	4/21/2014	5-7 ft bgs	x	x	x	x	x
	4/21/2014	10-12 ft bgs	x	x	x	x	x

Abbreviations:

PCBs - Polychlorinated Biphenyls
 SVOCs - Semivolatile Organic Compounds
 TAL - Target Analyte List
 TCL - Target Compound List
 TICs - Tentatively Identified Compounds
 TOC - Total Organic Carbon
 VOCs - Volatile Organic Compounds

Checked by: AMZ 9/30/2014

TABLE 5D
LNAPL Sampling and Analyses Summary
 August 2014
 Phoenix Property
 37-88 Review Avenue
 Long Island City, New York

PARAMETERS										
RADII (37-80 Review Ave)										
Sample Point Well ID	Sample date	TCL VOCs+10 TICs	TCL SVOCs+20 TICs	TCL PCBs	TAL Metals	Cyanide	GRO/DRO/MRO	GC Fingerprint	Conventional Parameters ¹	
		SW-846 8260C	SW-846 8270D	SW-846 8082	SW-846 6010C/7471B	SW-846 9012B	SW-846 8015 (modified)	SW-846 8015 (modified)		
GAL-03 ²	-----	<i>Not Sampled</i>								
GAL-08	8/18/2014	x	x	x	x	x	x	x	x	
GAL-16R	8/18/2014	x	x	x	x	x	x	x	x	
PHOENIX (37-88 Review Ave)										
GAL-14	8/19/2014	x	x	x	x	x	x	x	x	
GAL-15 ³	-----	<i>Not Sampled</i>								
GAL-17	8/19/2014	x	x	x	x	x	x	x	x	
GAL-25 ⁴	-----	<i>Not Sampled</i>								
GAL-26	8/19/2014	x	x	x	x	x	x	x	x	
GAL-32	8/19/2014	x	x	x	x	x	x	x	x	
GAL-33	8/19/2014	x	x	x	x	x	x	x	x	
GAL-34 ⁴	-----	<i>Not Sampled</i>								
GAL-35	8/19/2014	x	x	x	x	x	x	x	x	
GAL-36	8/19/2014	x	x	x	x	x	x	x	x	
GAL-37	8/19/2014	x	x	x	x	x	x	x	x	
MW-8	8/19/2014	x	x	x	x	x	x	x	x	
WASTE MANAGEMENT (38-22 Review Ave)										
MW-1 ³	-----	<i>Not Sampled</i>								
MW-6	8/19/2014	x	x	x	x	x	x	x	x	
MW-6S	8/19/2014	x	x	x	x	x	x	x	x	
MW-37 ⁵	-----	<i>Not Sampled</i>								
MW-38 ³	-----	<i>Not Sampled</i>								
38-20 Review Ave										
MW-54 ⁶	8/18/2014						x	x	x	
	9/03/2014	x	x	x	x	x			x	
MW-55	8/18/2014	x	x	x	x	x	x	x	x	
MW-56 ⁶	8/18/2014						x	x		
	9/03/2014	x	x	x	x	x			x	

Notes:

- ¹ - TOX, % sulfur, % sediment, flash point, BTU, density, viscosity, surface tension, and interfacial tension.
 - TOX by SW-846 9023, % Sulfur by ASTM D129/D4294, % Sediment by ASTM D1796, Flash Point by ASTM D92/D93, BTU by ASTM D240, Density/API Gravity by ASTM D1298, Viscosity by ASTM D445, Surface Tension by ASTM D971, and Interfacial Tension by ASTM D971
- ² - GAL-03 could not be located.
- ³ - MW-1, GAL-15, and MW-38 had no LNAPL present.
- ⁴ - GAL-25 and GAL-34 had insufficient LNAPL for sampling.
- ⁵ - MW-37 was inaccessible due to activities on property.
- ⁶ - Initial parameters collected on 8/18/14; all remaining conventional parameters collected on 9/3/14 due to sample volume limitations.

Abbreviations:

BTU - British Thermal Unit	NP - Not present
CO - Carbon Dioxide	PCBs - Polychlorinated Biphenyls
DOC - Dissolved Organic Carbon	SVOCs - Semivolatile Organic Compounds
DRO - Diesel Range Organics	TAL - Target Analyte List
GC - Gas Chromatogram	TCL - Target Compound List
GRO - Gasoline Range Organics	TICs - Tentatively Identified Compounds
MEE - Methane, Ethane, and Ethene	TOC - Total Organic Carbon
MRO - Medium Range Organics	TOX - Total Organic Halides
NS - Not sampled	VOCs - Volatile Organic Compounds

Checked by: AMZ 9/30/2014

Table 6
Validated Analytical Detects - Indoor and Ambient Air
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	NYSDOH Air Guideline Values ¹	USEPA Industrial Air RSLs ³	Unit	Indoor Air												Ambient/Outdoor Air						
				Sample Type			IA-1			IA-2			IA-3			IA-4			OA-1		OA-2	
				Sample ID	Sample Date	N=Normal, FD=Field Duplicate	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014	3/24/2014				
Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL					
1,2,4-Trimethylbenzene	NC	3.1	ug/m3	1.1	0.98		4.3	J	1.2	2.7	0.98		5.2	0.98	0.69	J	1.4	1.8	0.98			
1,3,5-Trimethylbenzene	NC	NS	ug/m3	0.49	J	0.98	1.4	J	1.2	0.83	J	0.98			0.23	J	1.4	0.54	J	0.98		
1,3-Butadiene	NC	0.41	ug/m3	1.1	0.44		0.54	J	0.5	0.56	0.44		0.66	0.44				0.21	J	0.44		
1,4-Dichlorobenzene	NC	1.1	ug/m3							0.31	J	1.2	16	1.2								
2,2,4-Trimethylpentane	NC	NC	ug/m3	2.1	0.93		12	J	1.1	3.6	0.93		9.5	0.93	0.67	J	1.3	0.82	J	0.93		
2-Butanone	NC	2200	ug/m3	2.9	1.5								1.6	1.5								
4-Ethyltoluene	NC	NC	ug/m3	0.46	J	0.98	1.4	J	1.2	0.81	J	0.98	1.7	0.98	0.21	J	1.4	0.5	J	0.98		
Acetone	NC	14000	ug/m3	36	12		8.2	J	12	33	12											
Benzene	NC	1.6	ug/m3	3	0.64		2.8	J	0.8	2	0.64		5.2	0.64	0.83	J	0.9	0.98	0.64			
Butane	NC	NC	ug/m3	6.3	1.2		8.5	J	1.4	6.2	1.2		22	1.2	3.4	J	1.7	3.3	1.2			
Carbon Tetrachloride	NC	2	ug/m3	0.39	0.06		0.4	J	0.2	0.4	0.06		0.38	0.06	0.44	J	0.2	0.41	0.06			
Chlorodifluoromethane	NC	22000	ug/m3	1.1	J	1.8	1.1	J	2.1	1.2	J	1.8	2.8	1.8	0.97	J	2.5	0.9	J	1.8		
Chloromethane	NC	39	ug/m3	1.1	1																	
Cyclohexane	NC	2600	ug/m3	1.2	0.69		2.4	J	0.8	0.92	0.69		4.4	0.69				0.3	J	0.69		
Dichlorodifluoromethane	NC	44	ug/m3	2.4	J	2.5	2.1	J	2.9	2.2	J	2.5	2.4	J	2.1	J	3.5	2.2	J	2.5		
Ethylbenzene	NC	4.9	ug/m3	2.1	0.87		3.7	J	1	2.2	0.87		48	0.87	0.46	J	1.2	0.77	J	0.87		
Freon 113	NC	13000	ug/m3	0.49	J	1.5	0.5	J	1.8	0.48	J	1.5	0.5	J	0.51	J	2.2	0.49	J	1.5		
Isopropanol	NC	3100	ug/m3	2.3	J	12				1.5	J	12	2.6	J								
Isopropylbenzene	NC	180	ug/m3	0.18	J	0.98	0.48	J	1.2	0.25	J	0.98	1.5	0.98								
m,p-Xylenes	NC	44	ug/m3	6.2	2.2		13	J	2.6	7.1	2.2		180	2.2	1.5	J	3.1	2.6	2.2			
Methyl Methacrylate	NC	310	ug/m3	0.51	J	2	1.3	J	2.4	0.49	J	2	1.4	J	2							
Methylene Chloride	60	260	ug/m3	1.6	J	1.7	1.9	J	2	2.1	1.7		2	1.7	1.6	J	2.5	1.5	J	1.7		
n-Heptane	NC	NC	ug/m3	2	0.82		6.8	J	1	2.1	0.82		7.4	0.82	0.53	J	1.2	0.65	J	0.82		
n-Hexane	NC	310	ug/m3	2.8	0.7		8.3	J	0.8	2.6	0.7		17	0.7	0.71	J	1	0.75	0.7			
n-Propylbenzene	NC	440	ug/m3				0.95	J	1.2	0.57	J	0.98										
o-Xylene	NC	44	ug/m3	2.2	0.87		4.1	J	1	2.5	0.87		76	0.87	0.5	J	1.2	0.97	0.87			
Styrene	NC	440	ug/m3				0.18	J	1	0.13	J	0.85	0.43	J	0.85							
Tetrachloroethene	30 ²	18	ug/m3	0.56	J	1.4	0.61	J	1.6	0.77	J	1.4	0.67	J	1.4	0.39	J	1.9	0.7	J	1.4	
Toluene	NC	2200	ug/m3	7.9	0.75		13	J	0.9	6.2	0.75		23	0.75	2	J	1.1	2.3	0.75			
Trichloroethene	5	0.88	ug/m3															0.065	0.05			
Trichlorofluoromethane	NC	310	ug/m3	1.6	1.1		1.6	J	1.3	2.6	1.1		3.3	1.1	1.3	J	1.6	1.3	1.1			
Xylenes, Total	NC	44	ug/m3	8.3	0.87		17	J	1	9.4	0.87		260	0.87	2	J	1.2	3.6	0.87			

Notes:

1. NYSDOH Air Guideline Values, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Table 3.1, October 2006. No results exceeded the NYSDOH Air Guideline Values.
2. NYSDOH's new guideline for tetrachloroethene is 30 ug/m³, per the September 2013 Fact Sheet.
3. USEPA Regional Screening Levels (RSLs) for Industrial Air, TR=1E-06, THQ=0.1, May 2014. The lower of the carcinogenic or noncarcinogenic screening level is shown. Results which exceeded the RSLs are shaded.

Abbreviations:

- NC - no criteria available
 Qual - interpreted qualifier
 RL - reporting limit
 ug/m3 - micrograms per cubic meter
 NYSDOH - New York State Department of Health
 USEPA - United States Environmental Protection Agency

Qualifiers:

- J - estimated result

Checked by: JTC 5/7/2014 and EG 9/25/2014

Table 7
Validated Analytical Detects - Sub-Slab and Soil Vapor
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Sample Type			Sub-Slab Vapor																										
Parameter	Soil Gas Screening Levels ¹	Unit	SSV-01 3/26/2014			SSV-02 3/26/2014			SSV-03 3/26/2014			SSV-04 3/25/2014			SSV-05 3/25/2014			SSV-06 3/25/2014			SSV-07 3/26/2014			SSV-08 3/26/2014			SSV-08 3/26/2014 FD		
			Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL
1,1-Dichloroethane	77	ug/m3										33	J	68				28	J	96				0.85	J	2.8	0.85	J	3.2
1,2,4-Trimethylbenzene	31	ug/m3	0.26	J	0.98	5		2.5						0.89	J	1.5				8.3	J	46	57		3.5	73		3.9	
1,2-Dichloroethane, Total	NC	ug/m3																											
1,3,5-Trimethylbenzene	NC	ug/m3				1.5	J	2.5						0.27	J	1.5								24		3.5	32		3.9
1,3-Butadiene	4.1	ug/m3	0.27	J	0.44																								
1,4-Dichlorobenzene	11	ug/m3																											
2,2,4-Trimethylpentane	NC	ug/m3	0.69	J	0.93	6.5		2.3	100		49	230		79					1300		110	330		43	130		3.3	140	3.7
2-Butanone	22000	ug/m3	1.6		1.5	7.4		3.7								2.3		2.2							7.3		5.2	6.5	5.9
4-Ethyltoluene	NC	ug/m3				2	J	2.5							0.25	J	1.5								15		3.5	18	3.9
Acetone	140000	ug/m3	37		12	79		30							58		18			520	J	550	140		42	170		48	
Benzene	16	ug/m3	1.2		0.64	1.9		1.6	24	J	34	120		54	0.67	J	0.96			11	J	30	3.7		2.2	4.1		2.6	
Benzyl Chloride	2.5	ug/m3							310		55																		
Butane	NC	ug/m3	6.2		1.2	51		3	2800		63	5400		100	2.6		1.8	8500		140	1600		55	130		4.2	140	4.8	
Carbon Disulfide	3100	ug/m3				3	J	3.9																8.6		5.5	11	6.2	
Carbon Tetrachloride	20	ug/m3	0.36	J	1.3	0.36	J	3.1																					
Chlorodifluoromethane	220000	ug/m3	13		1.8	0.81	J	4.4							1.1	J	2.7												
Chloroethane	44000	ug/m3										890		110					38	J	160								
Chloroform	5.3	ug/m3				13		2.4							3		1.5												
cis-1,2-Dichloroethene	NC	ug/m3																											
Cyclohexane	26000	ug/m3				19		1.7	2000		36	2400		58	1.7		1	950		82	2100		32	170		2.4	170	2.8	
Cymene	NC	ug/m3																							17		3.9	20	4.4
Dichlorodifluoromethane	440	ug/m3	2.4	J	2.5	1.9	J	6.2							2	J	3.7							1.9	J	8.7	1.9	J	9.9
Ethylbenzene	49	ug/m3	0.61	J	0.87	41		2.2	350		46	28	J	73	2.2		1.3			66		40	17		3	16		3.5	
Freon 113	130000	ug/m3													0.7	J	2.3												
Isopropanol	31000	ug/m3	6	J	12										4.3	J	18							9.5	J	43	11	J	49
Isopropylbenzene	1800	ug/m3							3800		52	150		83					150		46	23		3.5	23		3.9		
m,p-Xylenes	440	ug/m3	1.9	J	2.2	27		5.4	110	J	110				3.2	J	3.3			40	J	100	14		7.6	16		8.7	
Methyl Methacrylate	3100	ug/m3																790		86	66		33						
Methyl tert-Butyl Ether	470	ug/m3				3.8		1.8				280		61															
Methylene Chloride	2600	ug/m3	2.2		1.7	2.4	J	4.3							2.3	J	2.6												
Naphthalene	3.6	ug/m3							1200		140													14		9.2	14		10
n-Heptane	NC	ug/m3	0.44	J	0.82	5.5		2	190		43	640		69				410		98	820		38	35		2.9	36	3.3	
n-Hexane	3100	ug/m3	1.1		0.7	30		1.8	2400		37	5100		59	3		1.1	2500		84	1300		33	70		2.5	72	2.8	
n-Propylbenzene	4400	ug/m3				1.7	J	2.5																22		3.5	22		3.9
o-Xylene	440	ug/m3	0.69	J	0.87	13		2.2	110		46	11	J	73	1.4		1.3			40	J	40	6.6		3	6.9		3.5	
sec-Butylbenzene	NC	ug/m3																						17		3.9	21		4.4
Styrene	4400	ug/m3				6.2		2.1							0.43	J	1.3							1.8	J	3	1.6	J	3.4
tert-Butyl Alcohol	NC	ug/m3	1.9	J	15																								
Tetrachloroethene	180	ug/m3	0.37	J	1.4	0.77	J	3.4							3.5		2							0.67	J	4.8	0.77	J	5.4
Toluene	22000	ug/m3	2.4		0.75	130		1.9	57		40	38	J	63	11		1.1	26	J	90	210		35	48		2.6	44	3	
trans-1,2-Dichloroethene	NC	ug/m3																											
Trichloroethene	8.8	ug/m3	0.24	J	1.1										0.3	J	1.6	25	J	130						1.8	J	4.3	
Trichlorofluoromethane	3100	ug/m3	23		1.1	1.7	J	2.8							2.6		1.7												
Vinyl Chloride	28	ug/m3										41	J	43				12	J	61									
Xylenes, Total	440	ug/m3	2.6		0.87	40		2.2	210		46				4.6		1.3			79		40	21		3	23		3.5	

Notes:
 1. Soil gas screening levels were calculated by dividing the indoor air screening levels (i.e., USEPA Regional Screening Levels for Industrial Air, TR=1E-06, THQ=0.1, May 2014) by an attenuation factor of (a) 0.1. Results which exceeded the soil gas screening levels are shaded.

Abbreviations:
 NC - no criteria available
 Qual - interpreted qualifier
 RL - reporting limit
 ug/m³ - micrograms per cubic meter
 USEPA - United States Environmental Protection Agency

Qualifiers:
 J - estimated result



Table 7
Validated Analytical Detects - Sub-Slab and Soil Vapor
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	Sample Type		Soil Vapor								
	Soil Gas Screening Levels ¹	Unit	SV-27 4/11/2014			SV-28 4/11/2014			SV-29 4/11/2014		
			Result	Qual	RL	Result	Qual	RL	Result	Qual	RL
	N=Normal, FD=Field Duplicate		N			N			N		
1,1-Dichloroethane	77	ug/m3				65		17			
1,2,4-Trimethylbenzene	31	ug/m3	7.3	J	7.9	9.7	J	20	13	J	40
1,2-Dichloroethene, Total	NC	ug/m3				21		16			
1,3,5-Trimethylbenzene	NC	ug/m3	2.6	J	7.9	6	J	20			
1,3-Butadiene	4.1	ug/m3	25		3.5	11		9	39		18
1,4-Dichlorobenzene	11	ug/m3							9.2	J	48
2,2,4-Trimethylpentane	NC	ug/m3	370		7.5	180		19	990		38
2-Butanone	22000	ug/m3	17		12	30		30			
4-Ethyltoluene	NC	ug/m3	3.4	J	7.9	7.7	J	20			
Acetone	140000	ug/m3	110		95	150	J	240			
Benzene	16	ug/m3	49		5.1	350		13	560		26
Benzyl Chloride	2.5	ug/m3									
Butane	NC	ug/m3	7700		180	12000		270	11000		380
Carbon Disulfide	3100	ug/m3	54		12	55		32	120		63
Carbon Tetrachloride	20	ug/m3									
Chlorodifluoromethane	220000	ug/m3									
Chloroethane	44000	ug/m3	3	J	11	64		27	12	J	53
Chloroform	5.3	ug/m3									
cis-1,2-Dichloroethene	NC	ug/m3				21		16			
Cyclohexane	26000	ug/m3	1400		100	2600		14	15000		220
Cymene	NC	ug/m3									
Dichlorodifluoromethane	440	ug/m3									
Ethylbenzene	49	ug/m3	9.2		6.9	18		18	27	J	35
Freon 113	130000	ug/m3				26	J	31	14	J	62
Isopropanol	31000	ug/m3	11	J	98						
Isopropylbenzene	1800	ug/m3	5.3	J	7.9	20		20	40		40
m,p-Xylenes	440	ug/m3	12	J	17	29	J	44	34	J	87
Methyl Methacrylate	3100	ug/m3	700		16	1200		42	2300		82
Methyl tert-Butyl Ether	470	ug/m3	71		5.8	63		15			
Methylene Chloride	2600	ug/m3				59		35	46	J	70
Naphthalene	3.6	ug/m3									
n-Heptane	NC	ug/m3	340		6.6	1700		17	2300		33
n-Hexane	3100	ug/m3	2400		110	8700		160	28000		230
n-Propylbenzene	4400	ug/m3	3.8	J	7.9	9.4	J	20	40		40
o-Xylene	440	ug/m3	6.4	J	6.9	23		18	29	J	35
sec-Butylbenzene	NC	ug/m3									
Styrene	4400	ug/m3									
tert-Butyl Alcohol	NC	ug/m3									
Tetrachloroethene	180	ug/m3				4.6	J	28			
Toluene	22000	ug/m3	22		6	26		15	58		30
trans-1,2-Dichloroethene	NC	ug/m3	1.3	J	6.3						
Trichloroethene	8.8	ug/m3									
Trichlorofluoromethane	3100	ug/m3									
Vinyl Chloride	28	ug/m3	4		4.1	22		10	22		21
Xylenes, Total	440	ug/m3	18		6.9	52		18	63		35

Notes:
 1. Soil gas screening levels were calculated by dividing the indoor air screening levels (i.e., USEPA Regional Screening Levels for Industrial Air, TR=1E-06, THQ=0.1, May 2014) by an attenuation factor of (α) 0.1. Results which exceeded the soil gas screening levels are shaded.

Abbreviations:
 NC - no criteria available
 Qual - interpreted qualifier
 RL - reporting limit
 ug/m3 - micrograms per cubic meter

Qualifiers:
 J - estimated result



Table 8
Validated Analytical Detects - Groundwater
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Sample Location			PHOENIX (37-88 Review Ave)					
Sample ID			GAL-15			GAL-15		
Sample Date			8/20/2014			8/20/2014		
N=Normal, FD=Field Duplicate			N			FD		
Parameter	NYS Standard or Guidance Value ¹	Unit	Result	Qual	RL	Result	Qual	RL
Volatile Organic Compounds								
1,1,1-Trichloroethane	5	ug/L	16	J	1	30	J	1
1,1-Dichloroethane	5	ug/L	29	J	1	50	J	1
1,1-Dichloroethene	5	ug/L	5.9	J	1	10	J	1
1,2-Dichlorobenzene	3	ug/L	6	J	1	9	J	1
1,3-Dichlorobenzene	3	ug/L				0.27	J	1
1,4-Dichlorobenzene	3	ug/L	1.7	J	1	2.6	J	1
Acetone	50	ug/L	10		5			
Benzene	1	ug/L	77		1	76		1
Chlorobenzene	5	ug/L	0.66	J	1	1.1		1
Chloroethane	5	ug/L	3.2	J	1	5.4	J	1
cis-1,2-Dichloroethene	5	ug/L	70	J	1	130	J	1
Cyclohexane	NS	ug/L	4.7		1	6		1
Ethylbenzene	5	ug/L	3.4	J	1	6.1	J	1
Freon 113	5	ug/L	18	J	1	32	J	1
Isopropylbenzene	5	ug/L	8.4		1	11		1
m,p-Xylenes	5	ug/L	0.7	J	1	0.87	J	1
Methyl Cyclohexane	NS	ug/L	4.6	J	1	6.4	J	1
Methyl tert-Butyl Ether	10	ug/L	3.1	J	1	4.6	J	1
o-Xylene	5	ug/L	0.82	J	1	1.5		1
Tetrachloroethene	5	ug/L	0.24	J	1	0.38	J	1
Toluene	5	ug/L	1.1		1	1.2		1
trans-1,2-Dichloroethene	5	ug/L	0.76	J	1	1.2		1
Trichloroethene	5	ug/L	2.9	J	1	5.1	J	1
Vinyl Chloride	2	ug/L	11	J	1	18	J	1
Semivolatile Organic Compounds								
Bis(2-ethylhexyl) Phthalate	5	ug/L	16		10	20		10
Pyrene	50*	ug/L	1.9	J	10			
Polychlorinated Biphenyls								
no detects								
Metals								
Aluminum	NS	ug/L	341	J	40	469	J	40
Antimony	3	ug/L	2.9		2	3.3		2
Arsenic	25	ug/L	33.6		2	35.9		2
Barium	1000	ug/L	408		4	441		4
Calcium	NS	ug/L	253000		200	266000		200
Chromium	50	ug/L	2.6	J	4	3.4	J	4
Copper	200	ug/L	4.6		4	4.9		4
Iron ⁵	300	ug/L	44800		120	45200		120
Lead	25	ug/L	3.8		1.2	5.2		1.2
Magnesium	35000*	ug/L	43200		200	44700		200
Manganese ⁵	300	ug/L	1100		8	1100		8
Nickel	100	ug/L	5.9		4	6.3		4
Potassium	NS	ug/L	58000		200	60300		200
Sodium	20000	ug/L	259000		200	267000		200
Thallium	0.5*	ug/L	0.77	J	0.8	0.95		0.8
Vanadium	NS	ug/L	7.9		4	9.1		4
Zinc	2000*	ug/L	66.7		16	82.8		16

Checked by: TS 9/17/14 and LB 9/19/14

Table 8
Validated Analytical Detects - Groundwater
Phoenix Property
37-88 Review Avenue
Long Island City, Queens, New York

Sample Location			PHOENIX (37-88 Review Ave)					
Sample ID			GAL-15			GAL-15		
Sample Date			8/20/2014			8/20/2014		
N=Normal, FD=Field Duplicate			N			FD		
Parameter	NYS Standard or Guidance Value ¹	Unit	Result	Qual	RL	Result	Qual	RL
General Chemistry			17			17		
Dissolved Organic Carbon	NS	mg/L	30.3		1	30.5		1
Total Organic Carbon	NS	mg/L	36.1		1	35.7		1
Sulfate	250	mg/L	46.5		20	51.7		20
Nitrate as N	10	mg/L				0.13	J	0.1
Methane	NS	ug/L	1100		40	1200		200
Alkalinity, Total	NS	mg/L	632		5	618		5
Total Dissolved Solids	500	mg/L	2320		50	2200		50
Chloride	250	mg/L	715		20	714		20
Carbon Dioxide	NS	mg/L	205	J	5	209	J	5

Notes and Abbreviations:

- 1) 6 NYCRR 703.6 Groundwater Effluent Limitations for Discharges to Class GA Water, and as supplemented by NYSDEC TOGS 1.1.1 (6/1998), and amendments (04/2000 & 06/2004). Where no standard value has been promulgated and placed into regulation, guidance values provided for a substance in NYSDEC TOGS 1.1.1 are shown and notated by *. Analytical results greater than the standard or guidance value are shaded. 6 NYCRR Part 703 accessed at <http://www.dec.ny.gov/regs/4590.html>; TOGS 1.1.1 and amendments accessed at http://www.dec.ny.gov/docs/water_pdf/togs111.pdf and http://www.dec.ny.gov/docs/water_pdf/tog111table1.pdf.
- 2) Standard shown applies to the sum of the individual cis and trans isomers.
- 3) Standard shown applies to the sum of these substances.
- 4) Standard shown applies to the sum of all Aroclors.
- 5) Individual standard values are shown. Per 6 NYCRR 703.6, the sum of iron and manganese concentrations shall not exceed 500 ug/L.

mg/L - milligrams per liter
Qual - validation qualifier
RL - reporting limit
ug/L - micrograms per liter
ND - not detectable
NS - no standard

Qualifiers:

J - estimated result

Checked by: TS 9/17/14 and LB 9/19/14

Table 9
Validated Analytical Detects - Soil
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	Sample ID Sample Date N=Normal, FD=Field Duplicate Start Depth (ft) End Depth (ft)	GAL-34 4/10/2014 N 0 2			GAL-34 4/18/2014 N 5 7			GAL-34 4/18/2014 N 18 20			GAL-35 4/10/2014 N 0 2			GAL-35 4/16/2014 N 5 7			GAL-35 4/16/2014 N 10 12			GAL-35 4/16/2014 FD 10 12			
		Protection of Public Health - Industrial ¹	Unit	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL		
Volatile Organic Compounds																							
1,2-Dichlorobenzene	1000	mg/kg																					
1,4-Dichlorobenzene	250	mg/kg	0.0005	J	0.00096																		
2-Butanone	1000	mg/kg							0.026	0.0065	0.0068	0.005											
Acetone	1000	mg/kg	0.0057		0.0048				0.073	0.0065	0.018	0.005	0.012	0.005	0.012	0.0049							
Benzene	89	mg/kg						0.013	J	0.097	0.0004	J	0.0013	0.0003	J	0.001	0.0003	J	0.001	0.0004	J	0.00098	
Carbon Disulfide	NS	mg/kg							0.0008	J	0.0013	0.0023	0.001										
Chloroform	700	mg/kg																					
cis-1,2-Dichloroethene	1000	mg/kg							0.0004	J	0.0013												
Cyclohexane	NS	mg/kg				1.2	0.11	0.6	0.097	0.0034	0.0013	0.0059	0.001	0.032	0.001	0.047	0.00098						
Ethylbenzene	780	mg/kg						0.31	0.097			0.0003	J	0.001	0.0038	0.001	0.0052	0.00098					
Isopropylbenzene	NS	mg/kg				0.056	J	0.11	0.21	0.097	0.0002	J	0.0013	0.0006	J	0.001	0.013	0.001	0.014	0.00098			
m,p-Xylenes	NS	mg/kg				0.034	J	0.11	3.4	0.097				0.0091	0.001	0.012	0.00098						
Methyl Cyclohexane	NS	mg/kg				4.6	0.11	2.5	0.097	0.0082	0.0013	0.018	0.001	0.13	0.001	0.18	0.00098						
Methyl tert-Butyl Ether	1000	mg/kg								0.0002	J	0.0013	0.0001	J	0.001								
o-Xylene	NS	mg/kg				0.018	J	0.11	2.4	0.097	0.0006	J	0.0013	0.0006	J	0.001	0.015	0.001	0.018	0.00098			
Toluene	1000	mg/kg				0.017	J	0.11	0.06	J	0.097	0.0003	J	0.0013	0.0005	J	0.001	0.0023	0.001	0.003	0.00098		
Xylenes, Total ²	1,000	mg/kg				0.052	J	0.22	5.8	0.194	0.0019	J	0.0026	0.0016	J	0.002	0.0241	0.002	0.03	0.00196			
Semivolatile Organic Compounds																							
2-Methylnaphthalene	NS	mg/kg						1.2	J	3.8				1.3	J	3.9	0.86	J	3.9				
Acenaphthene	1000	mg/kg						0.74	J	3.8													
Anthracene	1000	mg/kg	0.066	J	0.35	1.1	J	3.9	2.3	J	3.8	0.27	J	1.8	1.2	J	3.5	1.3	J	3.9	0.9	J	3.9
Benzo[a]anthracene	11	mg/kg	0.47		0.035	4.4		0.39	20		0.38	1.3		0.18									
Benzo[a]pyrene	1.1	mg/kg	0.56		0.035	3.6		0.39	12		0.38	1.8		0.18	1.4		0.35						
Benzo[b]fluoranthene	11	mg/kg	0.75		0.035	2.9	J	0.39	5.7	J	0.38	2.4		0.18	1.2	J	0.35						
Benzo[g,h,i]perylene	1000	mg/kg	0.51		0.35	5.7		3.9	7.8		3.8	0.94	J	1.8	1.2	J	3.5						
Benzo[k]fluoranthene	110	mg/kg	0.25		0.035	0.83		0.39	1.1		0.38	0.58		0.18									
Carbazole	NS	mg/kg	0.043	J	0.35																		
Chrysene	110	mg/kg	0.55		0.35	5.7		3.9	24		3.8	2.1		1.8	6.2		3.5	4.3		3.9	3	J	3.9
Dibenz[a,h]anthracene	1.1	mg/kg	0.12	J	0.035	1.6		0.39	3.6		0.38	0.41	J	0.18	0.68		0.35						
Dibenzofuran	1000	mg/kg																					
Fluoranthene	1000	mg/kg	0.81		0.35	2.8	J	3.9	1.9	J	3.8	2.1		1.8	0.94	J	3.5	0.69	J	3.9			
Fluorene	1000	mg/kg							1	J	3.8			1.4	J	3.5	1.4	J	3.9	0.82	J	3.9	
Indeno[1,2,3-cd]pyrene	11	mg/kg	0.29	J	0.035	2.9		0.39	3.8		0.38	0.72	J	0.18	0.86		0.35						
Naphthalene	1000	mg/kg							0.54	J	3.8												
Phenanthrene	1000	mg/kg	0.28	J	0.35	2.2	J	3.9	6.2		3.8	0.9	J	1.8	4.5		3.5	8.5		3.9	5.8		3.9
Pyrene	1000	mg/kg	0.52		0.35	4.1		3.9	9.7		3.8	1.8		1.8	3.5		3.5	2.9	J	3.9	2.2	J	3.9
Polychlorinated Biphenyls			no detects																				

Checked by: JTC 5/19/2014

Table 9
Validated Analytical Detects - Soil
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	Sample ID Sample Date N=Normal, FD=Field Duplicate Start Depth (ft) End Depth (ft)	GAL-34 4/10/2014 N			GAL-34 4/18/2014 N			GAL-34 4/18/2014 N			GAL-35 4/10/2014 N			GAL-35 4/16/2014 N			GAL-35 4/16/2014 N			GAL-35 4/16/2014 FD			
		Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	
Metals																							
Aluminum	NS	mg/kg	6720		40.6	4200	43.4	7550	40.2	6340	44.1	5130	38	13400	35.6	12200	36.7						
Antimony	NS	mg/kg	2	J	4.1					2.1	J	4.4											
Arsenic	16	mg/kg	4.7		3	12	3.3	3.4	3	9.5	3.3	10.7	2.9	3	2.7	3.2	2.8						
Barium	10000	mg/kg	183	J	40.6	55.7	J	43.4	48.3	J	40.2	153	44.1	54.1	38	44.4	35.6	41.9	36.7				
Beryllium	2700	mg/kg	0.85		0.41					0.38	J	0.44			0.34	J	0.36	0.31	J	0.37			
Cadmium	60	mg/kg	0.77	J	0.81					1.5	0.88												
Calcium	NS	mg/kg	7640		1010	1060	J	1090	2110	1000	14100	1100	8180	951	1020	891	1020	918					
Chromium ³	6,800	mg/kg	36.1	J	2	9.6	J	2.2	9.5	J	2	24.2	2.2	11.8	1.9	18.2	1.8	15.8	1.8				
Cobalt	NS	mg/kg	20.8	J	10.1	3.7	J	10.9	8	J	10	11.4	11	6	J	9.5	9.9	8.9	8.4	J	9.2		
Copper	10000	mg/kg	380		5.1	58.6	5.4	56.8	5	607	5.5	29	4.8	15.6	4.5	14.6	4.6						
Iron	NS	mg/kg	21100		30.4	9850	32.6	21700	30.1	24600	33.1	11600	28.5	22900	26.7	20800	27.5						
Lead	3900	mg/kg	252	J	2	136	J	2.2	26.2	J	2	641	2.2	64.6	1.9	10.4	1.8	9	1.8				
Magnesium	NS	mg/kg	5060		1010	1080	J	1090	2130	1000	4900	1100	2850	951	3230	891	3210	918					
Manganese	10000	mg/kg	327		3	119	3.3	259	3	451	3.3	148	2.9	403	2.7	330	2.8						
Mercury	5.7	mg/kg	0.12		0.018	0.11	0.019	0.13	0.019	0.39	0.019	0.1	0.018	0.037	0.019	0.038	0.019						
Nickel	10000	mg/kg	54.5	J	8.1	12.4	J	8.7	11	J	8	18.5	8.8	12.1	7.6	16.9	7.1	15.9	7.3				
Potassium	NS	mg/kg	910	J	1010	386	J	1090	1340	1000	588	J	1100	648	J	951	768	J	891	739	J	918	
Silver	6800	mg/kg	0.56	J	2																		
Sodium	NS	mg/kg	290	J	1010	112	J	1090	93.1	J	1000	239	J	1100	80.1	J	951	92.4	J	891	83.1	J	918
Vanadium	NS	mg/kg	20		10.1	14.1	10.9	42.8	10	33	11	17.8	9.5	23.6	8.9	22	9.2						
Zinc	10000	mg/kg	2480	J	30.4	96.4	J	6.5	48.1	J	6	754	6.6	85.2	5.7	48.2	5.3	46.6	5.5				
General Chemistry																							
Cyanide	10000	mg/kg																					

Abbreviations:

mg/kg - milligrams per kilogram

Qual - interpreted qualifier

NS - soil cleanup objective not available

NYSDEC - New York State Department of Environmental Conservation

RL - reporting limit

Qualifiers:

J - estimated result

Notes:

1. NYSDEC Restricted Use Industrial Soil Cleanup Objectives for Protection of Public Health (Table 375-6.8(b)). Results greater than the Restricted Use Industrial Soil Cleanup Objectives are shaded.
2. Total Xylenes results were calculated by summing results for m,p-Xylenes
3. Trivalent chromium soil cleanup objectives are shown above.

Checked by: JTC 5/19/2014

Table 9
Validated Analytical Detects - Soil
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	Sample ID Sample Date N=Normal, FD=Field Duplicate Start Depth (ft) End Depth (ft)	GAL-36 4/9/2014 N 0 2			GAL-36 4/16/2014 N 5 7			GAL-36 4/16/2014 N 10 12			GAL-37 4/9/2014 N 0 2			GAL-37 4/21/2014 N 5 7			GAL-37 4/21/2014 N 10 12		
		Unit	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual
Volatile Organic Compounds																			
1,2-Dichlorobenzene	1000	mg/kg												0.0008	J	0.0011			
1,4-Dichlorobenzene	250	mg/kg												0.0013		0.0011			
2-Butanone	1000	mg/kg	0.013		0.005			0.0063		0.0044			0.026		0.0047		0.0088		0.0053
Acetone	1000	mg/kg	0.055		0.005		0.0087		0.0044			0.033		0.0044		0.092		0.0047	0.032
Benzene	89	mg/kg	0.0006	J	0.001		0.0001	J	0.00087		0.0001	J	0.00088		0.0004	J	0.00095	0.0002	J
Carbon Disulfide	NS	mg/kg	0.0014		0.001							0.0034		0.00095		0.0009	J	0.0011	0.0015
Chloroform	700	mg/kg	0.0003	J	0.001														
cis-1,2-Dichloroethene	1000	mg/kg										0.0001	J	0.00095					
Cyclohexane	NS	mg/kg	0.0037		0.001		0.026		0.00087		0.015		0.00088		0.0015		0.00095	0.012	0.0011
Ethylbenzene	780	mg/kg	0.0006	J	0.001		0.0014		0.00087		0.0004	J	0.00088		0.0003	J	0.00095	0.0005	J
Isopropylbenzene	NS	mg/kg	0.001	J	0.001		0.0074		0.00087		0.0053		0.00088		0.0012		0.00095	0.033	0.0011
m,p-Xylenes	NS	mg/kg	0.0009	J	0.001		0.0009		0.00087		0.0006	J	0.00088				0.0012	0.0011	0.0006
Methyl Cyclohexane	NS	mg/kg	0.0071		0.001		0.099		0.00087		0.065		0.00088		0.0035		0.00095	0.036	0.0011
Methyl tert-Butyl Ether	1000	mg/kg	0.0001	J	0.001						0.0004	J	0.00088		0.0046		0.00095	0.0026	0.0011
o-Xylene	NS	mg/kg	0.0009	J	0.001		0.0021		0.00087		0.0018		0.00088		0.0004	J	0.00095	0.004	0.0011
Toluene	1000	mg/kg	0.0007	J	0.001		0.0004	J	0.00087		0.0004	J	0.00088		0.0003	J	0.00095		0.0014
Xylenes, Total ²	1,000	mg/kg	0.0017	J	0.002		0.003		0.00174		0.0024	J	0.00176		0.0004	J	0.0019	0.0052	0.0022
Semivolatiles Organic Compounds																			
2-Methylnaphthalene	NS	mg/kg				0.69		0.37		0.18	J	0.36							
Acenaphthene	1000	mg/kg	0.58	J	3.7													1	J
Anthracene	1000	mg/kg	2	J	3.7								0.67	J	1.8			1.3	J
Benzo[a]anthracene	11	mg/kg	6		0.37								2.5		0.18		2.9		0.39
Benzo[a]pyrene	1.1	mg/kg	4.7		0.37				0.2		0.036		1.9		0.18			0.42	0.37
Benzo[b]fluoranthene	11	mg/kg	6.5		0.37								2.3		0.18		0.69		0.39
Benzo[g,h,i]perylene	1000	mg/kg	1.6	J	3.7								0.86	J	1.8				
Benzo[k]fluoranthene	110	mg/kg	2.5		0.37								0.69		0.18				
Carbazole	NS	mg/kg	0.87	J	3.7														
Chrysene	110	mg/kg	7.1		3.7		1.2		0.37		1.5		0.36		3.3		1.8	3.6	J
Dibenz[a,h]anthracene	1.1	mg/kg	0.75	J	0.37									0.38	J	0.18			
Dibenzofuran	1000	mg/kg	0.76	J	3.7		0.16	J	0.37		0.18	J	0.36						
Fluoranthene	1000	mg/kg	15		3.7					0.36		0.36		4.4		1.8		0.87	J
Fluorene	1000	mg/kg	1.6	J	3.7		0.66		0.37		0.72		0.36		0.33	J	1.8		2.4
Indeno[1,2,3-cd]pyrene	11	mg/kg	1.8	J	0.37									0.66	J	0.18			
Naphthalene	1000	mg/kg				0.047	J	0.37											
Phenanthrene	1000	mg/kg	9.7		3.7		4.3		0.37		4		0.36		2.3		1.8		9.8
Pyrene	1000	mg/kg	7.7		3.7					0.46		0.36		2.8		1.8		1.9	J
Polychlorinated Biphenyls			no detects																

Checked by: JTC 5/19/2014

Table 9
Validated Analytical Detects - Soil
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Parameter	Sample ID Sample Date N=Normal, FD=Field Duplicate Start Depth (ft) End Depth (ft)	GAL-36 4/9/2014 N 0 2			GAL-36 4/16/2014 N 5 7			GAL-36 4/16/2014 N 10 12			GAL-37 4/9/2014 N 0 2			GAL-37 4/21/2014 N 5 7			GAL-37 4/21/2014 N 10 12			
		Protection of Public Health - Industrial ¹	Unit	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL	Result	Qual	RL		
Metals																				
Aluminum	NS	mg/kg	7370	44		11700	37.6		5560	38		7970	42.6		16100	41		7680	40	
Antimony	NS	mg/kg	2	J	4.4															
Arsenic	16	mg/kg	10.7	3.3		3.9	2.8		2.3	J	2.9	10.1	3.2		5.9	3.1		1.9	J	3
Barium	10000	mg/kg	115	44		44.7	37.6		42.9	38		114	42.6		43.9	41		44	40	
Beryllium	2700	mg/kg				0.34	J	0.38				0.36	J	0.43	0.68	0.41		0.3	J	0.4
Cadmium	60	mg/kg	1.2	0.88								0.73	J	0.85						
Calcium	NS	mg/kg	14000	1100		1470	940		1090	950		19700	1070		1520	1030		1230	1000	
Chromium ³	6,800	mg/kg	117	2.2		22	1.9		13.8	1.9		15.8	2.1		19.4	2.1		16.1	2	
Cobalt	NS	mg/kg	11.3	11		8.1	J	9.4	4.4	J	9.5	7	J	10.7	10.7	10.3		5.3	J	10
Copper	10000	mg/kg	93.4	5.5		17.7	4.7		12.4	4.8		44.9	5.3		12.9	5.1		14.5	5	
Iron	NS	mg/kg	30300	33		27300	28.2		17800	28.5		15000	32		23100	30.8		15300	30	
Lead	3900	mg/kg	134	2.2		7.1	1.9		3.3	1.9		176	2.1		9.9	2.1		4.2	2	
Magnesium	NS	mg/kg	2900	1100		2810	940		2020	950		11400	1070		3410	1030		2320	1000	
Manganese	10000	mg/kg	339	3.3		469	2.8		356	2.9		289	3.2		177	3.1		569	3	
Mercury	5.7	mg/kg	0.49	0.019		0.022	0.018					0.58	0.019		0.025	0.02				
Nickel	10000	mg/kg	25	8.8		16.3	7.5		10.5	7.6		15	8.5		22.5	8.2		13.7	8	
Potassium	NS	mg/kg	867	J	1100	884	J	940	1110	950		828	J	1070	891	J	1030	803	J	1000
Silver	6800	mg/kg																		
Sodium	NS	mg/kg	255	J	1100	169	J	940	109	J	950	226	J	1070	190	J	1030	109	J	1000
Vanadium	NS	mg/kg	24.5	11		31.2	9.4		17.3	9.5		24.3	10.7		30.2	10.3		26.7	10	
Zinc	10000	mg/kg	215	6.6		35.6	5.6		33.3	5.7		142	6.4		68.6	6.2		28.3	6	
General Chemistry																				
Cyanide	10000	mg/kg	0.12	0.11								0.19	0.11							

Abbreviations:

mg/kg - milligrams per kilogram

Qual - interpreted qualifier

NS - soil cleanup objective not available

NYSDEC - New York State Department of Environmental Conservation

RL - reporting limit

Qualifiers:

J - estimated result

Notes:

1. NYSDEC Restricted Use Industrial Soil Cleanup Objectives for Protection of Public Health (Table 375-6.8(b)). Results greater than the Restricted Use Industrial Soil Cleanup Objectives are shaded.

2. Total Xylenes results were calculated by summing results for m,p-Xylenes

3. Trivalent chromium soil cleanup objectives are shown above.

Checked by: JTC 5/19/2014

Table 10
Validated Analytical Results - LNAPL Physical Parameters
 Phoenix Property
 37-88 Review Avenue
 Long Island City, Queens, New York

Sample Location		PHOENIX (37-88 Review Ave)									
Sample ID		GAL-14	GAL-17	GAL-26	GAL-32	GAL-33	GAL-35	GAL-36	GAL-36	GAL-37	MW-8
Sample Date		8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014	8/19/2014
N=Normal, FD=Field Duplicate		N	N	N	N	N	N	N	FD	N	N
Parameter	Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
API gravity	-	25.12	25.36	24.87	22.88	25.49	25.45	25.38	25.37	24.94	25.27
Density	g/cm ³	0.903	0.9016	0.9044	0.916	0.9008	0.901	0.9015	0.9015	0.904	0.9021
Flash Point	F	265	273	269	192	278	249	292	288	283	262
Heat Of Combustion	btu/lb	19271	19232	19272	19067	19273	19326	19305	19294	19291	19289
Interfacial Tension	dynes/cm	41.5	66.1	43.2	44.3	38.1	40.8	39.7	44.9	55.7	38.1
Specific Gravity	-	0.9035	0.9021	0.9049	0.9166	0.9013	0.9015	0.902	0.902	0.9045	0.9026
Sulfur	%w	0.53	0.58	0.57	0.38	0.43	0.48	0.72	0.55	0.46	0.46
Surface Tension	dynes/cm	30.5	29.5	30.6	30.5	30.4	30.4	30.7	30.3	30.6	30.6
% Sediment	%v	< 0.05	< 0.05	< 0.05	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Viscosity	cSt	69.37	61.08	61.36	67.02	67.36	57.48	68.24	68.33	72.82	66.78

Sample Location		WASTE MANAGEMENT (38-22 Review Ave)			38-20 Review Ave			RADII (37-80 Review Ave)	
Sample ID		MW-6	MW-6S	MW-54	MW-54	MW-55	MW-56	GAL-08	GAL-16R
Sample Date		8/19/2014	8/19/2014	8/18/2014	9/3/2014	8/18/2014	9/3/2014	8/18/2014	8/18/2014
N=Normal, FD=Field Duplicate		N	N	N	N	N	N	N	N
Parameter	Unit	Result	Result	Result	Result	Result	Result	Result	Result
API gravity	-	24.77	19.41	24.9		25.25	33.38	24.26	24.96
Density	g/cm ³	0.905	0.9371	0.9042		0.8988	0.8542	0.9045	0.9004
Flash Point	F	224	298	332		225	172	153	234
Heat Of Combustion	btu/lb	19363	18867		19236	19222	19247	19064	19279
Interfacial Tension	dynes/cm	40.8	56.1	36.4		54.34	30.5	58.41	51.29
Specific Gravity	-	0.9055	0.9376	0.9047		0.9027	0.8582	0.9085	0.9044
Sulfur	%w	0.22	0.59	0.451		0.446	0.453	0.252	0.336
Surface Tension	dynes/cm	30.2	31.5	30.8		32.4	51.9	31.1	33
% Sediment	%v	0.1	< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Viscosity	cSt	64.49	276.05	61.78		51.8	30.74	39.91	82.34

Notes and Abbreviations

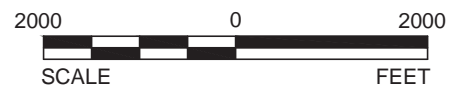
API - American Petroleum Institute
 % - Percent
 g/cm³ - Grams Per Cubic Centimeter
 %v - Percent Volume
 %w - Percent Weight
 btu/lb - British Thermal Units Per Pound
 F - Degrees Fahrenheit
 dynes/cm - Dynes Per Centimeter
 cSt - Centistokes

Checked by: CD 9/19/2014



REFERENCE

1.) BASE MAP FROM USGS 7.5 MINUTE QUADRANGLE OF BROOKLYN, N.Y., DATED 2013.



SCALE	AS SHOWN
DATE	11/18/14
DESIGN	HAL
CADD	RG
CHECK	HAL
REVIEW	SDM

TITLE

SITE LOCATION MAP

FILE No.	1302414B010
PROJECT No.	1302414 REV. 0

37-88 REVIEW AVENUE/PHOENIX PROPERTY

FIGURE

1



LEGEND	
	PROPERTY BOUNDARY
	BUILDING OUTLINE
	TOPOGRAPHIC CONTOUR
	RAILROAD TRACK
	UNKNOWN MANHOLE
	CATCH BASIN
	SURVEYED MONITORING WELL (SEE REFERENCE 3)
	MONITORING WELL (LOCATIONS APPROXIMATE) (SEE REFERENCE 4)
	APPROXIMATE SOIL VAPOR PROBE LOCATION
	APPROXIMATE OUTDOOR AIR SAMPLE LOCATION
	APPROXIMATE SUB-SLAB SOIL VAPOR LOCATION
	APPROXIMATE INDOOR AIR SAMPLE LOCATION
	SOIL BORING (GOLDER ASSOCIATES 2003/2004) (SEE REFERENCE 3)
	LNAPL PILOT TEST STUDY OBSERVATION WELL (SEE REFERENCE 3)
	LIF BORING LOCATION (SEE REFERENCE 4)
	SOIL VAPOR PROBE LOCATION (SAMPLED IN 2008/2009) (SEE REFERENCE 5)

NOTE

1.) ELEVATIONS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), OR MEAN SEA LEVEL.

REFERENCES

1.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.

2.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED "BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41,69 & 79, 37-80 REVIEW AVENUE, PREPARED FOR: GOLDER ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.

3.) WELL COORDINATES TAKEN FROM MICROSOFT EXCEL FILES QUANTA SAMPLES AND WELLS.XLS, 2148A 8-23-04.XLS, 2148A 4-11-05.XLS, 2340 MONITORING WELLS.XLS, 2148 83-88 WELLS 4-25-13.XLSX, AND MON WELLS 8-22-14 DELIV.XLSX PROVIDED BY GEOD CORP.

4.) LOCATIONS OF ALL OTHER WELLS WERE DIGITIZED FROM HARDCOPY OF A DRAWING BY KLEINFELDER ENTITLED "AERIAL PLAN" DATED MAY 13, 2013.

5.) SOIL VAPOR PROBE LOCATIONS DIGITIZED FROM FIGURE 1, ENTITLED "SOIL VAPOR PROBE LOCATIONS - VOC DETECTIONS," DATED JANUARY 26, 2010, PREPARED BY GEOSYNTEC CONSULTANTS.

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	R/W
PROJECT 37-88 REVIEW AVENUE/PHOENIX PROPERTY RI REPORT LONG ISLAND CITY, QUEENS, NEW YORK						
TITLE PHOENIX PROPERTY PLAN						
PROJECT No. 1302414		FILE No. 1302414B009		DESIGN HAL 11/18/14		SCALE AS SHOWN REV. 0
CADD RG 11/18/14		CHECK HAL 11/18/14		REVIEW SDM 11/18/14		
				FIGURE 2		

Drawing File: 1302414B009 - Figure 2.dwg | Layout: FIGURE 2 | Modified: 11/17/14 2:31pm | Printed: 11/18/14 10:02am | Printed by: GSW/ed



- PROPERTY BOUNDARY
- BUILDING OUTLINE
- TOPOGRAPHIC CONTOUR
- RAILROAD TRACK
- APPROXIMATE LOCATION OF DRAIN TRENCH
- UNKNOWN MANHOLE
- CATCH BASIN
- RI MONITORING WELL LOCATION
- APPROXIMATE OUTDOOR AIR SAMPLE LOCATION
- APPROXIMATE SOIL VAPOR PROBE LOCATION
- APPROXIMATE SUB-SLAB SOIL VAPOR LOCATION
- APPROXIMATE INDOOR AIR SAMPLE LOCATION
- SURVEYED MONITORING WELL
- MONITORING WELL (LOCATIONS APPROXIMATE) (SEE REFERENCE 4)
- SOIL BORING (GOLDER ASSOCIATES 2003/2004) (SEE REFERENCE 3)
- LNAPL PILOT TEST STUDY OBSERVATION WELL (SEE REFERENCE 3)
- LIF BORING LOCATION (SEE REFERENCE 4)
- SOIL VAPOR PROBE LOCATION (SAMPLED IN 2008/2009) (SEE REFERENCE 5)

NOTE

1.) ELEVATIONS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), OR MEAN SEA LEVEL.

REFERENCES

- 1.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.
- 2.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED 'BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41.69 & 79 , 37-80 REVIEW AVENUE, PREPARED FOR: GOLDER ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.
- 3.) WELL COORDINATES TAKEN FROM MICROSOFT EXCEL FILES QUANTA SAMPLES AND WELLS.XLS, 2148A 8-23-04.XLS, 2148A 4-11-05.XLS, 2340 MONITORING WELLS.XLS, 2148 83-88 WELLS 4-25-13.XLSX, AND MON WELLS 8-22-14 DELIV.XLSX PROVIDED BY GEOD CORP.
- 4.) LOCATIONS OF ALL OTHER WELLS WERE DIGITIZED FROM HARDCOPY OF A DRAWING BY KLEINFELDER ENTITLED 'AERIAL PLAN' DATED MAY 13, 2013.
- 5.) SOIL VAPOR PROBE LOCATIONS DIGITIZED FROM FIGURE 1, ENTITLED 'SOIL VAPOR PROBE LOCATIONS - VOC DETECTIONS,' DATED JANUARY 26, 2010, PREPARED BY GEOSYNTEC CONSULTANTS.

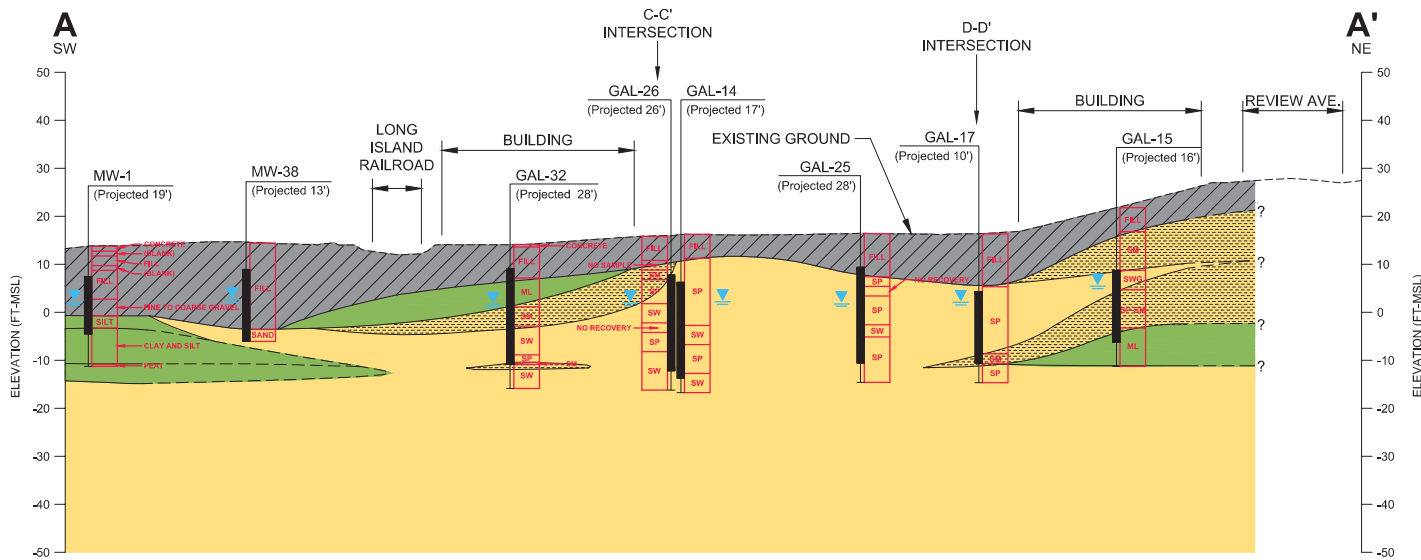


REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RWW
PROJECT: 37-88 REVIEW AVENUE/PHOENIX PROPERTY RI REPORT LONG ISLAND CITY, QUEENS, NEW YORK						
TITLE: REMEDIAL INVESTIGATION SAMPLING LOCATIONS						
PROJECT No.		1302414		FILE No.		1302414B007
DESIGN	HAL	11/18/14	SCALE	AS SHOWN	REV.	0
CADD	RG	11/18/14				
CHECK	HAL	11/18/14				
REVIEW	SDM	11/18/14				

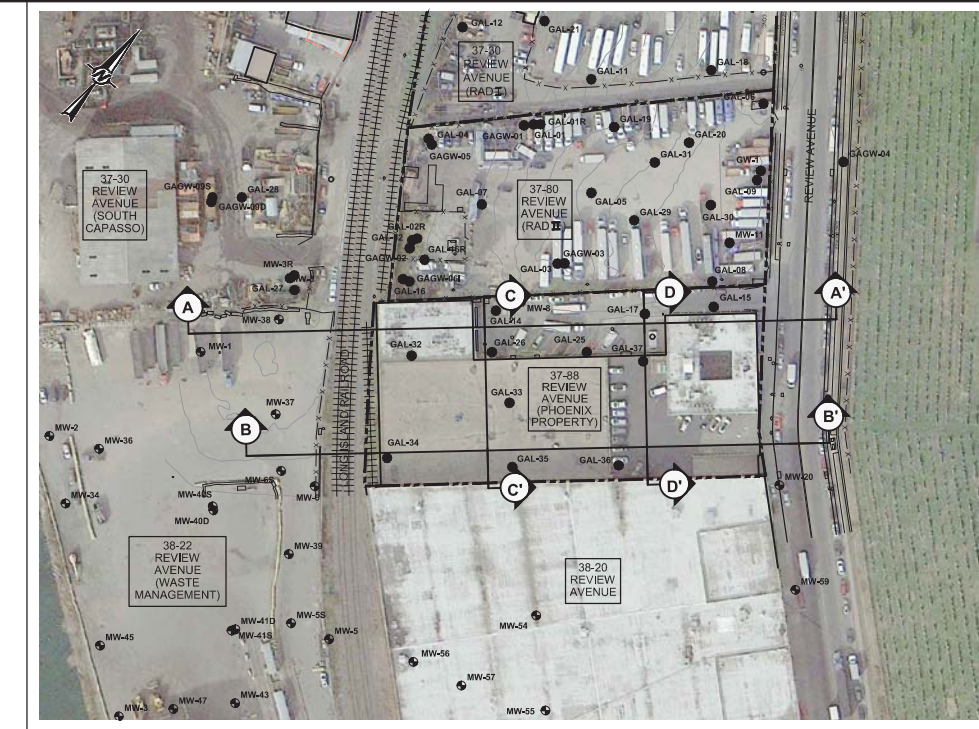


FIGURE 3

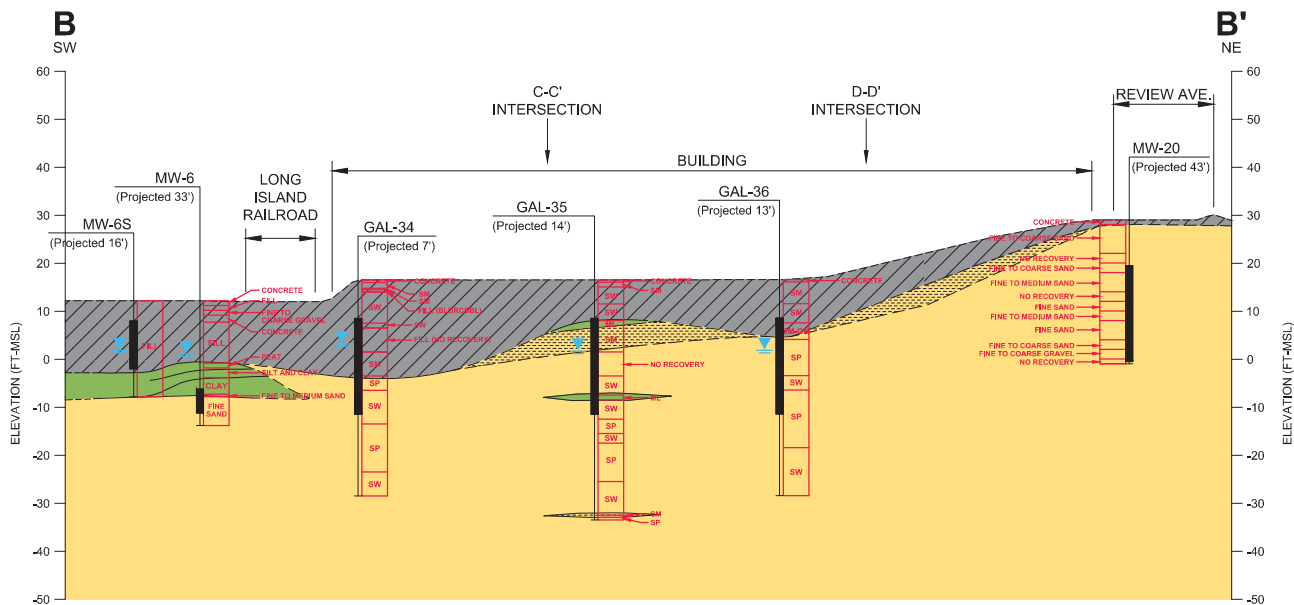
Google earth



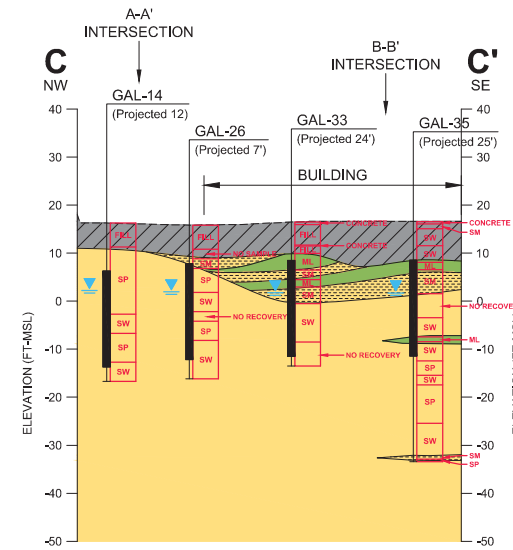
A CROSS SECTION A-A'



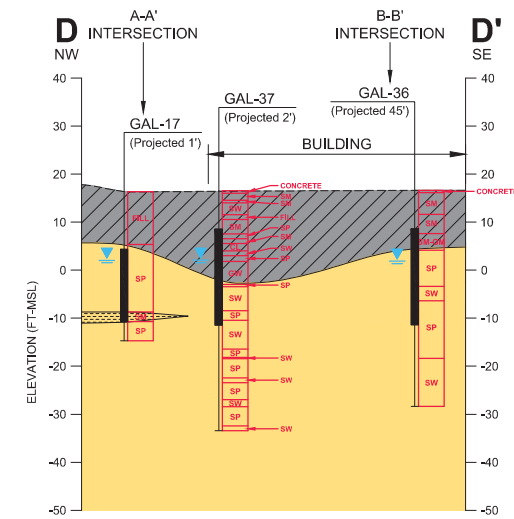
CROSS SECTION LOCATION MAP
SCALE 100 0 100 200 FEET



B CROSS SECTION B-B'



C CROSS SECTION C-C'



D CROSS SECTION D-D'

LEGEND

- GAL-36 ← WELL/BORING IDENTIFICATION
- ← TOP OF WELL/BORING
- ← TOP OF SCREENED INTERVAL
- ← BOTTOM OF SCREENED INTERVAL
- ← BOTTOM OF WELL/BORING



GROUNDWATER ELEVATION (FT.-MSL)
MEASURED ON SEPTEMBER 3, 2014

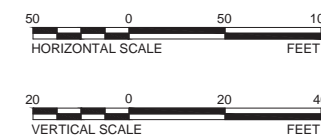
NOTE

1.) FILL MATERIAL USCS CLASSIFICATION IN GOLDR LOGS GAL-34 THROUGH GAL-37 ONLY. LITHOLOGIC INFORMATION INCLUDED WITH FILL CLASSIFICATION FROM OTHER BORING LOGS INCORPORATED INTO GEOLOGIC INTERPRETATION.

2.) GEOLOGIC CONTACTS INFERRED WHERE DASHED.

REFERENCES

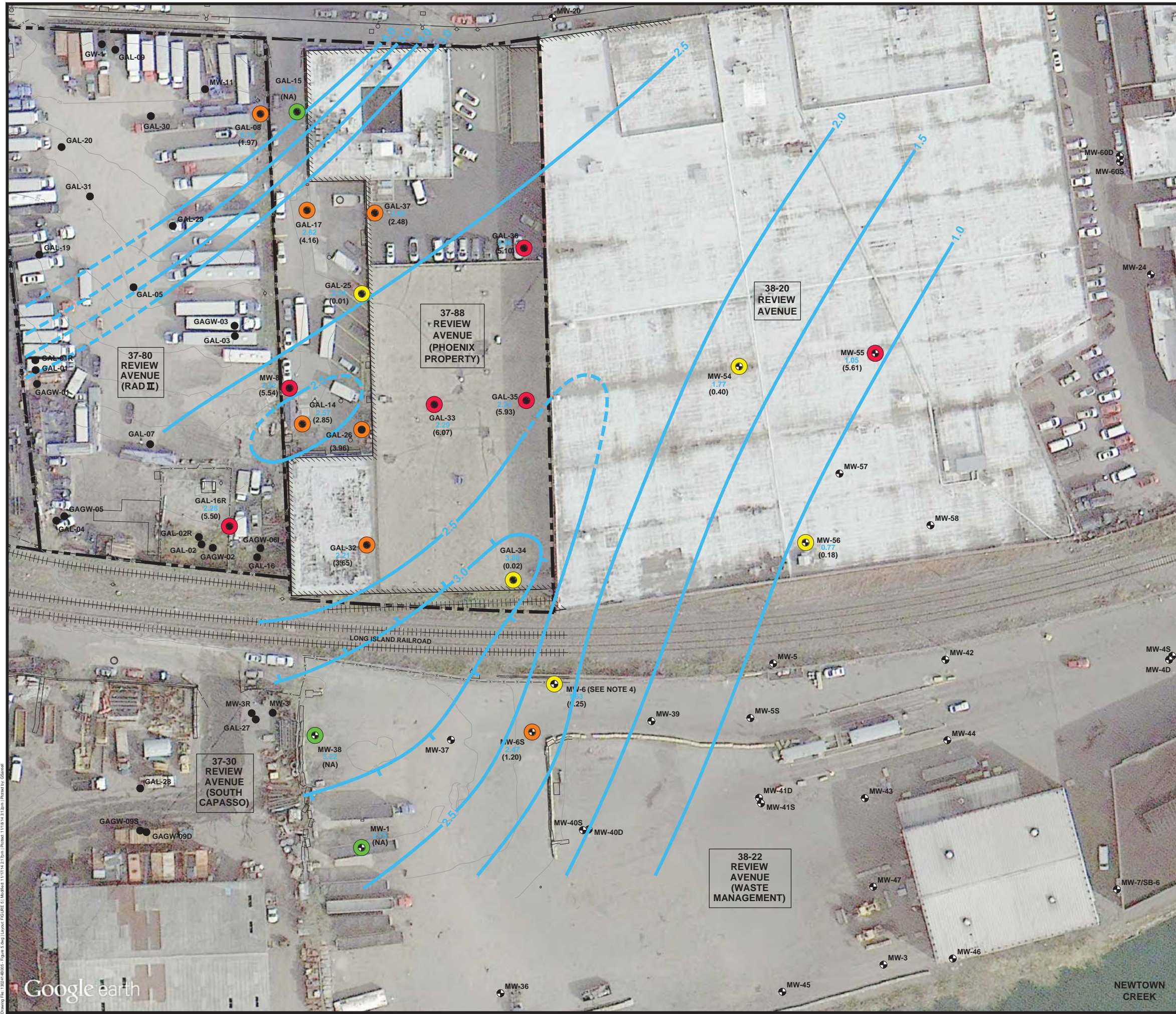
- 1.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED "BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41,69 & 79, 37-80 REVIEW AVENUE, PREPARED FOR: GOLDR ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.
- 2.) WELL COORDINATES TAKEN FROM A MICROSOFT EXCEL FILE QUANTA SAMPLES AND WELLS.XLS, 2148A 8-23-04.XLS, 2148A 4-11-05.XLS, 2340 MONITORING WELLS.XLS, AND 2148 83-88 WELLS 4-25-13.XLSX AND MON WELLS 8-22-14 DELIV.XLSX PROVIDED BY GEOD CORP.
- 3.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	R/W
PROJECT 37-88 REVIEW AVENUE/PHOENIX PROPERTY RI REPORT LONG ISLAND CITY, QUEENS, NEW YORK						
TITLE GENERALIZED GEOLOGIC CROSS SECTIONS						
PROJECT No.	130-2414	FILE No.	1302414B003			
DESIGN	JLH 11/18/14	SCALE	AS SHOWN	REV.	0	
CADD	RG 11/18/14					
CHECK	HAL 11/18/14					
REVIEW	SDM 11/18/14					



FIGURE 4



LEGEND

- PROPERTY BOUNDARY
- BUILDING OUTLINE
- TOPOGRAPHIC CONTOUR
- RAILROAD TRACK
- UNKNOWN MANHOLE
- CATCH BASIN
- SURVEYED MONITORING WELL
- MONITORING WELL (LOCATIONS APPROXIMATE) (SEE REFERENCE 4)
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- 1.0
- 1.77
- (5.61)
- NO MEASUREABLE LNAPL
- APPARENT LNAPL THICKNESS < 1 FT
- APPARENT LNAPL THICKNESS > 1 FT, < 5 FT
- APPARENT LNAPL THICKNESS > 5 FT

NOTES

- 1.) ELEVATIONS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), OR MEAN SEA LEVEL.
- 2.) SYNOPSIS GROUNDWATER AND LNAPL INTERFACES GAUGED ON AUGUST 18, 2014.
- 3.) NA - NOT APPLICABLE.
- 4.) GROUNDWATER ELEVATION NOT USED IN CONTOURS AS THIS WELL IS SCREENED BELOW THE WATER TABLE.

REFERENCES

- 1.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.
- 2.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED "BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41, 69 & 79, 37-80 REVIEW AVENUE, PREPARED FOR: GOLDER ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.
- 3.) WELL COORDINATES TAKEN FROM MICROSOFT EXCEL FILES QUANTA SAMPLES AND WELLS.XLS, 2148A 8-23-04.XLS, 2148A 4-11-05.XLS, 2340 MONITORING WELLS.XLS, 2148 83-88 WELLS 4-25-13.XLSX, AND MON WELLS 8-22-14 DELIV.XLSX PROVIDED BY GEOD CORP.
- 4.) LOCATIONS OF ALL OTHER WELLS WERE DIGITIZED FROM HARDCOPY OF A DRAWING BY KLEINFELDER ENTITLED "AERIAL PLAN" DATED MAY 13, 2013.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	R/W

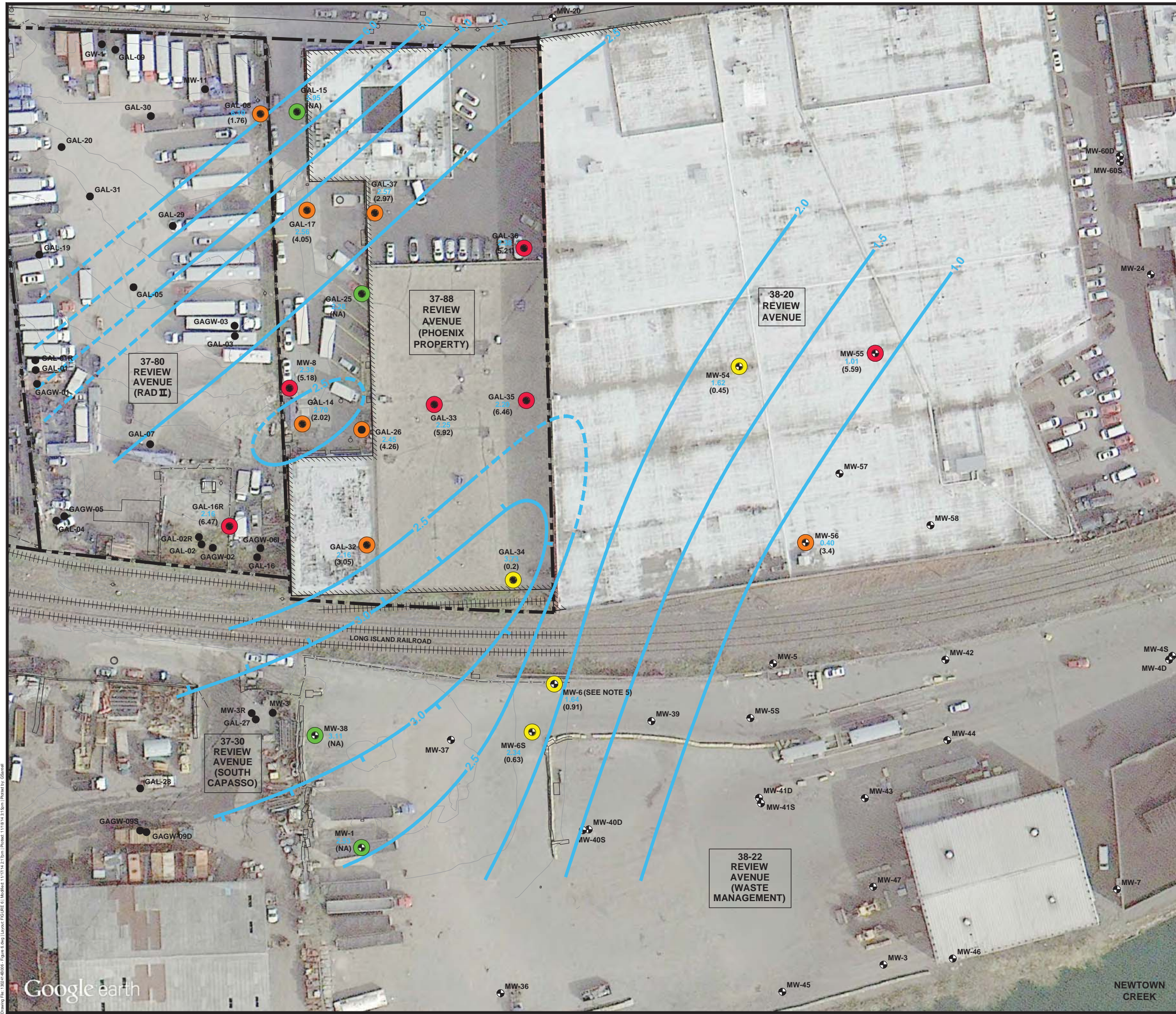
PROJECT **37-88 REVIEW AVENUE/PHOENIX PROPERTY
RI REPORT
LONG ISLAND CITY, QUEENS, NEW YORK**

**INTERPRETED GROUNDWATER
CONTOUR MAP (AUGUST 2014)**
















PROJECT No.	1302414	FILE No.	1302414B005
DESIGN	HAL 11/18/14	SCALE	AS SHOWN REV. 0
CADD	RG 11/18/14		
CHECK	HAL 11/18/14		
REVIEW	SDM 11/18/14		



FIGURE 5



LEGEND

-  PROPERTY BOUNDARY
-  BUILDING OUTLINE
-  TOPOGRAPHIC CONTOUR
-  RAILROAD TRACK
-  UNKNOWN MANHOLE
-  CATCH BASIN
-  SURVEYED MONITORING WELL
-  MONITORING WELL (LOCATIONS APPROXIMATE) (SEE REFERENCE 4)
-  **1.0** GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
-  1.62 GROUNDWATER ELEVATION (FT MSL)
-  (5.59) APPARENT LNAPL THICKNESS (FEET)
-  NO MEASUREABLE LNAPL (SEE NOTE 3)
-  APPARENT LNAPL THICKNESS < 1 FT
-  APPARENT LNAPL THICKNESS > 1 FT, < 5 FT
-  APPARENT LNAPL THICKNESS > 5 FT

NOTES

- 1.) ELEVATIONS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), OR MEAN SEA LEVEL.
- 2.) SYNOPTIC GROUNDWATER AND LNAPL INTERFACES GAUGED ON SEPTEMBER 3, 2014.
- 3.) NO MEASUREABLE LNAPL AT GAL-25; ONLY A SHEEN OBSERVED.
- 4.) NA - NOT APPLICABLE.
- 5.) GROUNDWATER ELEVATION NOT USED IN CONTOURS AS THIS WELL IS SCREENED BELOW THE WATER TABLE.

REFERENCES

- 1.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.
- 2.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED "BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41, 69 & 79 - 37-80 REVIEW AVENUE, PREPARED FOR: GOLDER ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.
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- 4.) LOCATIONS OF ALL OTHER WELLS WERE DIGITIZED FROM HARDCOPY OF A DRAWING BY KLEINFELDER ENTITLED "AERIAL PLAN" DATED MAY 13, 2013.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RWW
PROJECT	37-88 REVIEW AVENUE/PHOENIX PROPERTY RI REPORT LONG ISLAND CITY, QUEENS, NEW YORK					

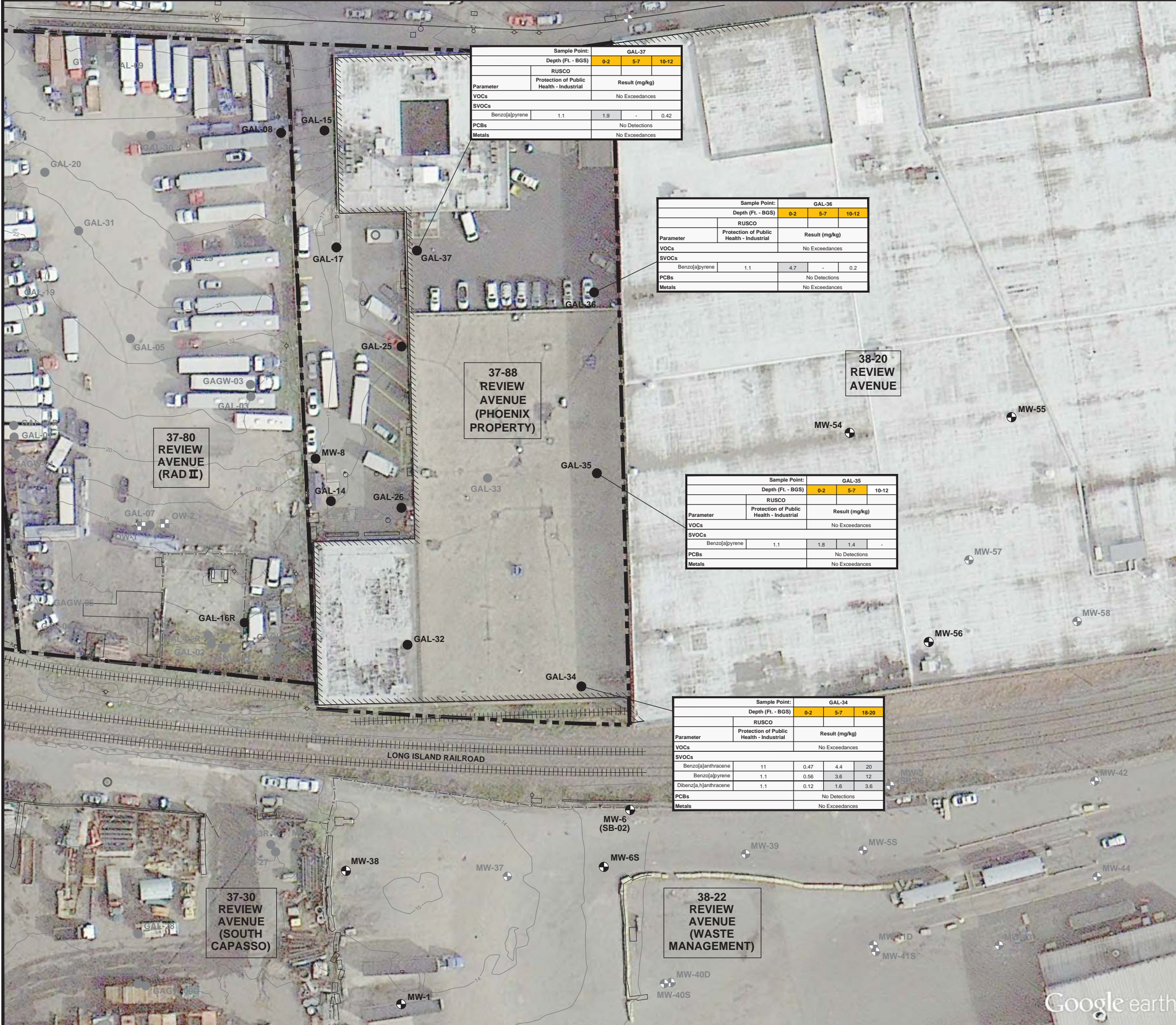
TITLE

**INTERPRETED GROUNDWATER
CONTOUR MAP (SEPTEMBER 2014)**

PROJECT No.		1302414	FILE No.		1302414B006
DESIGN	HAL	11/18/14	SCALE	AS SHOWN	REV. 0
CADD	RG	11/18/14			
CHECK	HAL	11/18/14			
REVIEW	SDM	11/18/14			



FIGURE 6



Sample Point: GAL-37		Depth (Fl. - BGS)		
RUSCO		0-2	5-7	10-12
Parameter	Protection of Public Health - Industrial	Result (mg/kg)		
VOCs		No Exceedances		
SVOCs		No Exceedances		
	Benzo(a)pyrene	1.1	1.9	0.42
PCBs		No Detections		
Metals		No Exceedances		

Sample Point: GAL-36		Depth (Fl. - BGS)		
RUSCO		0-2	5-7	10-12
Parameter	Protection of Public Health - Industrial	Result (mg/kg)		
VOCs		No Exceedances		
SVOCs		No Exceedances		
	Benzo(a)pyrene	1.1	4.7	0.2
PCBs		No Detections		
Metals		No Exceedances		

Sample Point: GAL-35		Depth (Fl. - BGS)		
RUSCO		0-2	5-7	10-12
Parameter	Protection of Public Health - Industrial	Result (mg/kg)		
VOCs		No Exceedances		
SVOCs		No Exceedances		
	Benzo(a)pyrene	1.1	1.8	1.4
PCBs		No Detections		
Metals		No Exceedances		

Sample Point: GAL-34		Depth (Fl. - BGS)			
RUSCO		0-2	5-7	18-20	
Parameter	Protection of Public Health - Industrial	Result (mg/kg)			
VOCs		No Exceedances			
SVOCs		No Exceedances			
	Benzo(a)anthracene	11	0.47	4.4	20
	Benzo(a)pyrene	1.1	0.56	3.6	12
	Dibenz(a,h)anthracene	1.1	0.12	1.6	3.6
PCBs		No Detections			
Metals		No Exceedances			

LEGEND

- PROPERTY BOUNDARY
- BUILDING OUTLINE
- TOPOGRAPHIC CONTOUR
- RAILROAD TRACK
- SAMPLING LOCATION
- UNKNOWN MANHOLE
- CATCH BASIN
- SURVEYED MONITORING WELL
- MONITORING WELL (LOCATIONS APPROXIMATE) (SEE REFERENCE 4)

NOTES

- 1.) ELEVATIONS REFERENCE THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29), OR MEAN SEA LEVEL.
- 2.) FIGURE SHOWS SOIL/FILL EXCEEDANCES BASED ON COMPARISON OF REPORTED ANALYTICAL RESULTS TO THE NYSDEC RESTRICTED USE SOIL CLEANUP OBJECTIVES FOR INDUSTRIAL SOIL FOR PROTECTION OF PUBLIC HEALTH (SHADED).
- 3.) ALL RESULTS IN mg/kg.

REFERENCES

- 1.) AERIAL PHOTOGRAPH LICENSED FROM GOOGLE EARTH PRO. DATE OF AERIAL PHOTOGRAPH IS NOVEMBER, 2012.
- 2.) BASE TOPOGRAPHY AND PROPERTY BOUNDARY FROM DIGITAL FILE ACAD-2148-delivery-8-22-14.dwg, ENTITLED "BOUNDARY AND TOPOGRAPHIC PLAN, BLOCK 312 LOTS 41.69 & 79 , 37-80 REVIEW AVENUE, PREPARED FOR: GOLDER ASSOCIATES, LOCATED IN: LONG ISLAND CITY, QUEENS, N.Y. PROVIDED BY GEOD CORPORATION, DATED SEPTEMBER 12, 2014.
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- 4.) LOCATIONS OF ALL OTHER WELLS WERE DIGITIZED FROM HARDCOPY OF A DRAWING BY KLEINFELDER ENTITLED "AERIAL PLAN" DATED MAY 13, 2013.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RWW

PROJECT 37-88 REVIEW AVENUE/PHOENIX PROPERTY
RI REPORT
LONG ISLAND CITY, QUEENS, NEW YORK

TITLE
SOIL EXCEEDANCES

PROJECT No.	1302414	FILE No.	1302414B008
DESIGN	HAL 11/18/14	SCALE	AS SHOWN REV. 0
CADD	RG 11/18/14		
CHECK	HAL 11/18/14		
REVIEW	SDM 11/18/14		



FIGURE 7

Google earth

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates Inc.
200 Century Parkway, Suite C
Mt. Laurel, NJ 08054 USA
Tel: (856) 793-2005
Fax: (856) 793-2006



APPENDIX A
GEOD UTILITY CLEARANCE REPORT

GEOPHYSICAL INVESTIGATION REPORT

**GROUND PENETRATING RADAR SURVEY (GPR)
FOR
LOCATING UNDERGROUND UTILITIES**

**LONG ISLAND CITY SITE
37-88 REVIEW AVENUE, LONG ISLAND CITY, NY, 11101**

Prepared For:

**Golder Associates
Environmental and Geotechnical Services
37-88 Review Avenue
Long Island City, NY. 11101**

Prepared by:
GEOD Corporation
24 Kanouse Rd.
Newfoundland, NJ 07435

FINAL
September 25, 2014

TABLE OF CONTENTS

1.0	Summary	1
2.0	Geophysical Methods	1
3.0	Geophysical Results	1
3.1	Ground Penetrating Radar (GPR)	1
	GPR Area 1	1
	GPR Area 2-Area 3	2
4.0	Conclusions	2

1.0 SUMMARY

At the request of Golder Associates, GEOD Corporation performed a geophysical investigation at 37-88 Review Avenue, borough of Queens, New York, on April 9th, 2014, herein referred to as "the Site." The purpose of the geophysical survey was to identify and locate all possible utilities and anomalies before installing Soil Borings within the Site.

The survey consisted of a geophysical investigation employing Electro-Magnetic Pipe, Cable, and Box locators (EM) and Ground Penetrating Radar (GPR). The project area consists of nine (9) separate location throughout the building. The locations are identified by the Soil Boring identifiers. The results of the geophysical investigation indicated possible presence of utilities and anomalies within the concerned area of the site.

2.0 GEOPHYSICAL METHODS

Geophysical Investigation was conducted in three (3) different locations with a GSSI Inc. SIR System 63000 utilizing a 400 MHz antenna and a RD-8000 Series of Electro-Magnetic Cable and Box locators (EM). The utility lines were located in continuous survey lines in unobstructed areas. Multiple survey lines, with various spacing and oriented parallel and perpendicular were performed at each designated scan location. The depth of the investigation was from zero (0) to approximately ten (10) feet with this antenna.

3.0 GEOPHYSICAL RESULTS

3.1 Ground Penetrating Radar

GPR scans were performed in all three (3) locations of the site. (Refer to hand sketches for GPR survey details.) The survey locations are denoted by Soil Boring numbers. All scans were run in parallel and perpendicular direction in each location in order to delineate any utility lines and any anomalies found. The anomalies observed at the site were marked with color Lumber Crayon or white paint to show their exact locations. The locations of these anomalies lines are described in the following sections and are shown on the attached sketches.

Area 1 (SV-2)

In area 1 (SV-2) located at the main Entrance (Refer to Sketch SV-2 for survey details), multiple scans were performed running perpendicular and parallel to building line in close distances due to moving traffic. No evidence of possible utility lines were observed in that area.

Area 2 (SV-24)

In area 2 (SV-24) (Refer to Sketch SV-24 for survey details). Multiple scans perpendicular and parallel to the building line were performed in that concerned area. In addition, some diagonal scans were also performed for delineating some anomalies. Apparently no evidence that possible utility lines were crossing the concerned area, however, some anomalies were observed and marked with white paint.

Area 3 (SV-28)

In area 3 (SV-28) (Refer to Sketch SV-28 for survey details), Perpendicular and parallel scan lines were performed at that location. Some unknown anomalies were observed in that area but they were not been able to identify as definite utility lines and were marked on the ground with white paint.

4.0 CONCLUSIONS

On April 9th, 2014 GEOD Corporation performed a geophysical investigation in three areas of the Site where proposed Soil Vapor Probes will be installed. The purpose of the geophysical survey was to identify possible locations of buried utility lines and any anomalies that may interfere with the locations of the above mentioned Soil Vapor Probes. Ground Penetrating Radar (GPR) was employed for the investigation.

The locations of anomalies found were marked in the field and are also shown in manual field Sketches. No evidence of possible utility lines interfering with the location of the Soil Vapor Probes were, however, some unknown anomalies appeared to be present in Area 2 (SV-24) and Area 3 SV-28). Areas of disturbance were also observed in several of the runs. Most of the scan runs were performed in short distances due to space limitations.

This report has been prepared and is submitted by

GEOD CORPORATION



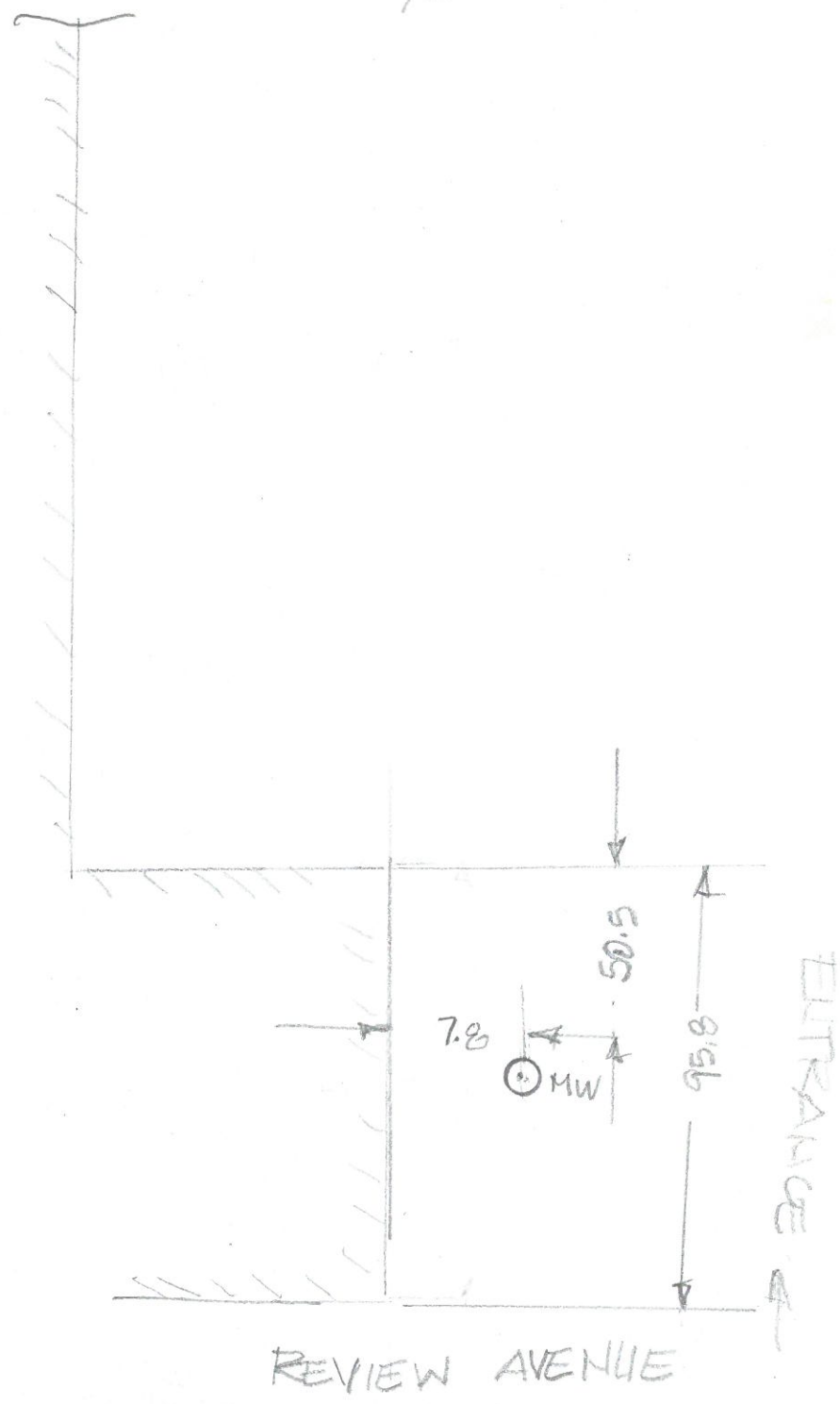
Ernst Alisma

9/25/2014

Date

Party E. A Date 04-09-2014 Job No. 2148D
Weather 90° F SUNNY Description SV-2
Location REVIEW AVE, LONG ISLAND CITY, QUEENS, N.Y.

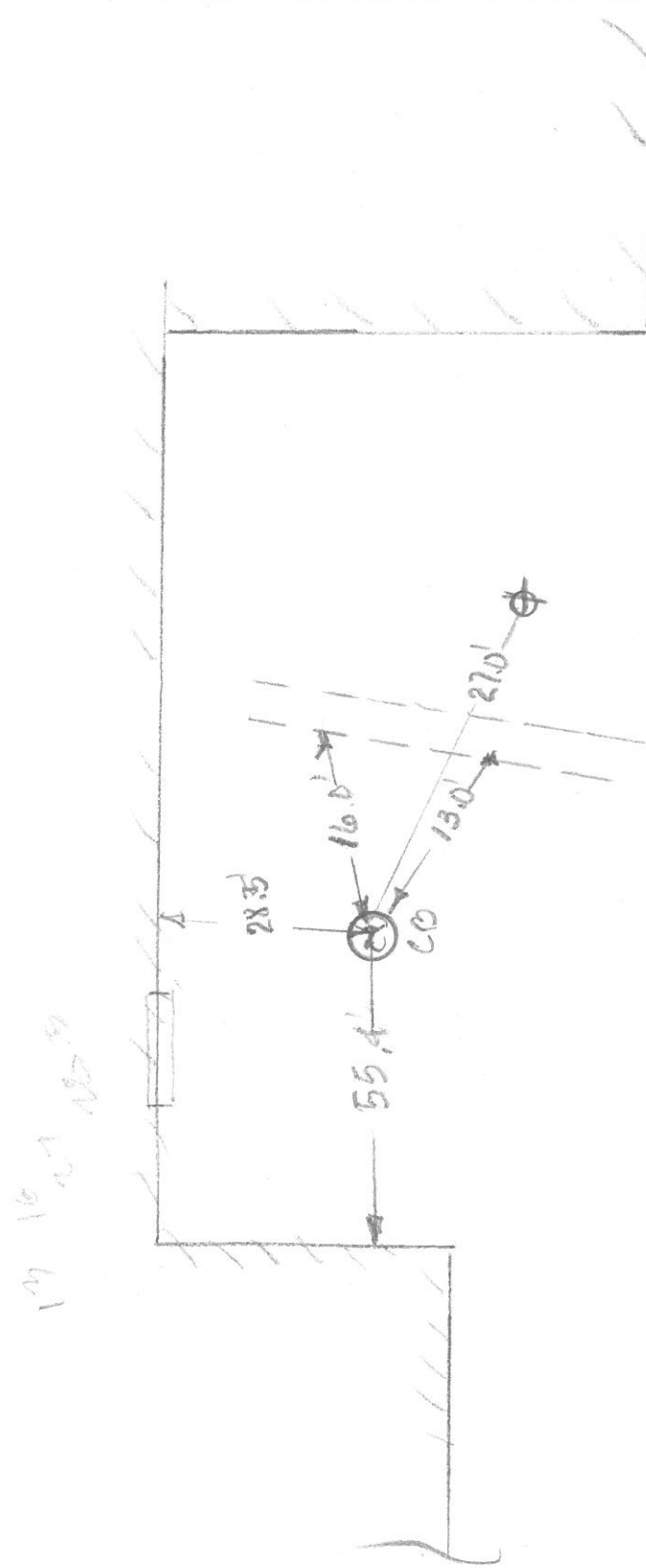
NOTHING FOUND @ THIS LOCATION



Party EA Date 04-09-2011 Job No. _____

Weather 42° F Description SV-24

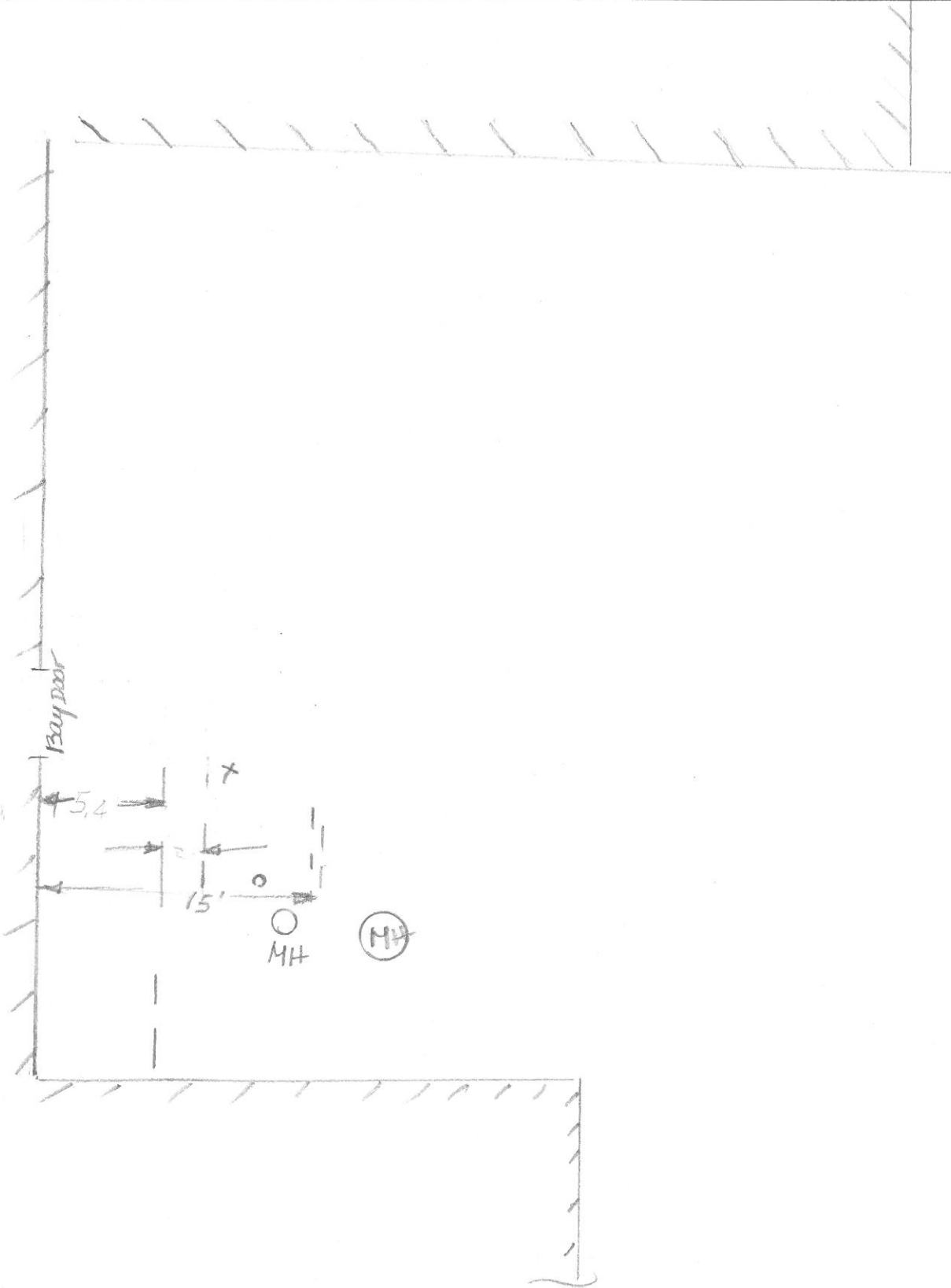
Location REVIEW AVE, LONG ISLAND CITY, N.Y.



Party E.A Date 04-09-2014 Job No. 2148D

Weather 42°F Description SV-28

Location REVIEW AVE. LONG ISLAND CITY, N.Y.



APPENDIX B
FIELD FORMS

AIR MONITORING FORMS



Golder Associates Inc.

AIR MONITORING DATA SHEET

Job Name Phoenix Beverage Property
 Location Long Island City, NY (Queens)
 Time In 1000 Time Out _____ Weather Sunny/Indoor Temp. 45-60° Wind D. - V. -
 Instrument Type Mini Rae 2000 PID Serial No. 11058
 Calibration Gas Isobutylene Instrument Reading 0.0ppm Span/Gain/RF Setting 10/ppm
 and Concentration

* If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
1030	GAL 37	PID	0.0ppm	BZ
1030	GAL 37	VKae	0.0	C.O. 0% LEL % 0% BZ
1100	GAL 37	PID	0.0ppm	BZ
1115	GAL 37	VKae	0.0	BZ LEL % 0 % CO 0ppm
1145	GAL 37	PID	0.0ppm	BZ CO, 0.0ppm / LEL 0%
123	GAL 37	PID	0.0ppm	BZ Work Area/perimeter - BZ
1300	GAL-36	PID	0.0ppm	BZ - 0.0ppm - PID
1300	GAL-36	VKae	0.0%	LEL BZ LEL % 0 100 0ppm
1330	GAL-36	PID	0.0	BZ C.O. - 0ppm / LEL 0%
1400	GAL-36	PID	0.0	BZ C.O. - 0ppm / LEL 0%
1430	GAL-36	PID	0.0%	BZ C.O. - 0ppm / LEL 0%

Recommendations

BZ - Breathing zone / work area

Joseph Huffman
 Printed Name

[Signature]
 Signature



Job Name Phoenix Date 4/14/14 Sheet 1 of 1
 Location Long Island City, NY Job Number 103244-01
 Time In 0900 Time Out _____ Weather Sunny ~~Indoor~~ Outdoor
 Instrument Type PID Temp. 60 Wind D. - V -
 Calibration Gas Isobutylene Instrument Reading 0.0 Serial No. 11058
 and Concentration _____ Span/Gain/RF Setting 100ppm

* If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
0900	GAL-36	PID	0.0	LIV/ Gasprobe 07
0915	GAL-36	VIA	0%	LEL (0 Co.)
0925	LIF-36	VIA	0	LEL 0%, CO 0ppm Oz - 20.9
0940	LIF-36	VIA	0	LEL 0% - BZ work Area CO-0ppm
0945	LIF-36	VIA	0	LEL 0% - BZ work Area CO-0ppm
1000	LIF-36	PID	0.0ppm	BZ work Area / perimeter
1005	LIF-36	VIA	0.0ppm	LEL 0%, BZ work Area CO-0ppm
1015	LIF-36	VIA	0.0	BZ LEL 0% BZ-work Area CO-0ppm
1215	LIF-35	VIA	0.0	BZ CO LEL 0% CO-0ppm
1220	LIF-35	VIA	0.0	BZ CO LEL 0% CO-0ppm
1225	LIF-35	PID	0.0	BZ 0.0ppm / CO - 0
1230	LIF-35	VIA	0.0	BZ PID=0.0
1300	LIF-35	VIA	0.0	BZ PID=0.0 - 0.2ppm
1400	LIF-34	VIA	0.0	CO / LEL 0% / CO - 0ppm
1400	LIF-34	PID	0.7	ppm (BZ)
1423	LIF-34	VIA	0.0	LEL 0% CO 0ppm
1512	LIF-37	VIA	0.0 -	CO, LEL 0%
1530	LIF-37	VIA	0.0 -	CO, LEL 0%, CO 0ppm
1530	LIF-37	PID	0.2	ppm (BZ)

Recommendations

Carbon Monoxide conc 0-0 ppm
 BZ - Breathing Zone / work Area - perimeter

Joseph L. Heffernan
 Printed Name

[Signature]
 Signature



Date 4/15/14 Sheet 1 of 1

Job Name Phoenix Beverage Property
 Location Long Island City, NY (Queens)

Job Number Phoenix

Time In 6:30 Time Out _____ Weather Overcast Temp. 64 Wind D. - V -

Instrument Type Mini Rae 3000 Serial No. 21517

Calibration Gas Isobutylene Instrument Reading 0.0 ppm Span/Gain/RF Setting 99.9 ppm @0810
 and Concentration

* If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr.*	Reading	Procedure/Observations/Comments
0915	GAL-36	VRae	0.00	1 LEL <u>4%</u> / H ₂ S=0 / O ₂ =20.9 B.Z. 0810
0922	GAL-36	PID	0.0 ppm	B.Z. 0810
0939	GAL-36	PID	0.0 ppm	B.Z. 0810
0939	GAL-36	VRae	C.O. ₂ =3	1 LEL = 4% / H ₂ S=0 / O ₂ =20.9
1028	GA-36			Recalibrate Fresh Air. LEL above should be 0= conditions = same
<p>* GAL - Terminate original boring - SAND upheaved into dual Tuber / abandoned original boring</p>				

Recommendations

Kevin Barbour

Printed Name

[Signature]

Signature



Date 4/16/14 Sheet 1 of 1

Job Name Phoenix Beverage Property

Job Number Phoenix

Location Long Island City, NY

Time In 0800 Time Out 1600 Weather Sunny Temp. 32 Wind D. - V. -

Instrument Type Mini Rae # 11658 & V Rae MultiGas Serial No. # 004065

Calibration Gas Isobutylene Instrument Reading 0.0 fresh air ppm Span/Gain/RF Setting 410/93.8/ppm

and Concentration * If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 351, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
0815	GAL-36	PID	0.0 ppm	
0832	GAL-36	V Rae	CO=0 LEL=0	H ₂ S=0 O ₂ =20.9
0907	GAL-36	PID	0.0 ppm	
0907	GAL-36	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0938	GAL-36	PID	0.0 ppm	
0938	GAL-36	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1006	GAL-36	PID	0.0 ppm	Reg
1006	GAL-36	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1110	GAL-36	PID	0.0 ppm	
1110	GAL-36	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1133	GAL-36	PID	0.0 ppm	
1133	GAL-36	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1229	GAL-36	PID	0.0 ppm	
1229	GAL-36	V Rae	CO=1	LEL=0 H ₂ S=0 O ₂ =21.0
1451	GAL-35	PID	0.0 ppm	
1451	GAL-35	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1529	GAL-35	PID	0.0 ppm	
1529	GAL-35	V Rae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9

Recommendations

V Rae - 52/49/25/20.9 (CO/LEL/H₂S/O₂) Calibration readings

Kevin Barber

Printed Name

Signature



Job Name Phoenix Sew Property Date 4/17/14 Sheet 1 of 1
 Location Long Island City, NY Job Number Phoenix
 Time In 0755 Time Out 14:30 Weather Sunny Temp. 34 Wind D. - V -
 Instrument Type MiniPac #11058 VRAE #004605 Serial No. ← P12
 Calibration Gas Isobutylene Instrument Reading 0.0 ppm Fresh Span/Gain/RF Setting 94.5
 and Concentration * If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
0825	GAL-35	PID	0.0 ppm	
0825	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0846	GAL-35	PID	0.1 ppm	
0846	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0920	GAL-35	PID	0.1 ppm	
0920	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0944	GAL-35	PID	0.0 ppm	(Fresh air - recalibrate after reading to 0.0 ppm)
0944	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1020	GAL-35	PID	0.0 ppm	
1020	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1044	GAL-35	PID	0.002 ppm	
1044	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1253	GAL-35	PID	0.0 ppm	(Fresh air calibration = 0.0 ppm @ 1251)
1253	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1315	GAL-35	PID	0.1 ppm	
1315	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1342	GAL-35	PID	0.0 ppm	0.1 ppm
1342	GAL-35	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9

Recommendations

Kevin Barber
 Printed Name

RL RL
 Signature



Date 4/18/14 Sheet 1 of 1
Job Number Phoenix

Job Name Phoenix Beverage Property

Location Long Island City

Time In 0910 Time Out _____ Weather Overcast → Sun Temp. 39 Wind D. - V -

Instrument Type Mini-Rae #11058 VRae # 004605 Serial No. (From Pine Env't)

Calibration Gas Isobutylene Instrument Reading 0.0 ppm Span/Gain/RF Setting 94.2
and Concentration * If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
0912	GAL-34	PID	0.0 ppm	Initial Readings
0912	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0926	GAL-34	PID	0.0 ppm	
0926	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0934	GAL-34	PID	0.1 ppm	
0939	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
0958	GAL-34	PID	0.2 ppm	
0958	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1016	GAL-34	PID	0.7 ppm	
1016	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1046	GAL-34	PID	0.4 ppm	
1046	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1059	GAL-34	PID	0.3 ppm	
1059	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1241	GAL-34	PID	0.2 ppm	
1241	GAL-34	VRAE	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9
1311	GAL-34	PID	0.2 ppm	
1311	GAL-34	VRae	CO=1	LEL=0 H ₂ S=0 O ₂ =20.9
1333	GAL-34	PID	0.2 ppm	(VRae = Fresh air calibrate before reading at
1333	GAL-34	VRae	CO=0	LEL=0 H ₂ S=0 O ₂ =20.9 (1331)
1425	GAL-34	PID	0.5 ppm	
1425	GAL-34	VRae	CO=2	LEL=0 H ₂ S=0 O ₂ =20.9
1500	GAL-34	PID	0.3 ppm	
1500	GAL-34	VRae	CO=1	LEL=0 H ₂ S=0 O ₂ =20.9

Recommendations

Keith Barber

Printed Name

[Signature]

Signature



Date 4/21/14 Sheet 1 of 1

Job Name Phoenix Beverage Property

Job Number 130-2414-01

Location Long Island City, NY

Time In 0900 Time Out 1530 Weather 12/100 Temp. 50F Wind D. - V -

Instrument Type PID / VPro (multi-jar) Serial No. 11058

Calibration Gas 15obutyl Instrument Reading 0.0 FA Span/Gain/RF Setting 100 spm

and Concentration * If more than one instrument is used, document calibration procedures and results for each additional instrument in recommendations section below and indicate the instrument used (eg. OVA, 361, OVM, etc.) for each observation.

Time	Station	Instr. *	Reading	Procedure/Observations/Comments
0915	GAL-37	PID	0.0	LEL 0% CO 0ppm
0915	GAL-37	PID	0.0	LEL 0% CO 0ppm
1025	GAL-37	PID	0.2	LEL 0% CO 1ppm
1035	GAL-37	PID	0.1	LEL 0% CO 0ppm
1045	GAL-37	PID	0.1	LEL 0% CO 0ppm
10:50	GAL-37	PID	0.3	LEL 0% CO 1ppm
11:05	GAL-37	PID	0.0	LEL 0% CO 0ppm
11:19	GAL-37	PID	0.0	LEL 0% CO 0ppm
11:35	GAL-37	PID	0.3	LEL 0% CO 7ppm
13:15	GAL-37	PID	0.0	LEL 0% CO 0ppm
1330	GAL-37	PID	0.0	LEL 0% CO 0ppm
1340	GAL-37	PID	0.1	LEL 0% CO 0ppm
1415	GAL-37	PID	0.1	LEL 0% CO 0ppm
1430	GAL-37	PID	0.2	LEL 0% CO 0ppm
1450	GAL-37	PID	0.3	LEL 0% CO 0ppm
1510	GAL-37	PID	0.1	LEL 0% CO 0ppm
1520	GAL-37	PID	0.1	LEL 0% CO 0ppm

Recommendations

Joseph L. Huffman
Printed Name

[Signature]
Signature

VI SAMPLE COLLECTION FORMS

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location GRAND AVE FOOD + PRODUCE OFFICE SPACE

* Sample ID	IA-1
Initial Date	3/24/14
Canister #	5127
Flow Controller #	4517
Start Time	0912
Initial Pressure (PSI)	-30
Final Date	3/24/14
Stop Time	1640
Final Pressure (PSI)	-5

Sample Volume
Time(min) X 0.025 L/min = Sample Volume (l) **5.6**

Apparent Moisture Conditions (Dry, Moist, Wet) DRY

PID Screening Measurement (ppm) 0.0

SF6 Screening Measurement (%) —

Sample Depth/Height (ft) +3

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14@ 0730	—	—	—	—	30.20", 21°
3/24/14@ 1800	—	—	—	—	30.09", 33°

Comments/Observations

Samplers	Date
jm	3/24/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location	ADJACENT TO BATHROOM
------------------------	----------------------

* Sample ID	IA-2
Initial Date	3/24/14
Canister #	3833
Flow Controller #	5769
Start Time	0908
Initial Pressure (PSI)	-30
Final Date	3/24/14
Stop Time	1707
Final Pressure (PSI)	-25

Sample Volume Time(min) X 0.004 l/min = Sample Volume (l)	5.98
---	------

Apparent Moisture Conditions (Dry, Moist, Wet)	—
---	---

PID Screening Measurement (ppm)	0.0
--	-----

SF6 Screening Measurement (%)	—
--------------------------------------	---

Sample Depth/Height (ft)	+3
---------------------------------	----

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (Inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14 @ 0730	—	—	—	—	21°, 30.20"
3/24/14 @ 1800	—	—	—	—	33°, 30.09

Comments/Observations	

Samplers	Date
<i>AM</i>	3/24/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location PUBLIC MORALS STORAGE

* Sample ID	IA-3
Initial Date	3/24/14
Canister #	5046
Flow Controller #	5188
Start Time	0925
Initial Pressure (PSI)	-30
Final Date	3/24/14
Stop Time	1723
Final Pressure (PSI)	-7

Sample Volume
 $\frac{0.0125}{0.0041 \text{ l/min}} = \text{Sample Volume (l)}$ 5.97

Apparent Moisture Conditions (Dry, Moist, Wet) Dry

PID Screening Measurement (ppm) 0.0

SF6 Screening Measurement (%) —

Sample Depth/Height (ft) +4

- Indicates Below Slab
 + indicates Above Ground

* SS = Sub-slab
 IA = Indoor air
 OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14@0730	—	—	—	—	21°, 30.20"
3/24/14@1800	—	—	—	—	33°, 30.09"

Comments/Observations

Samplers	Date
<i>jr</i>	3/24/14

Soil Vapor Intrusion VI Sample Collection Form

Tenant/Location	
------------------------	--

* Sample ID	IA-4
Initial Date	3/24/14
Canister #	4314
Flow Controller #	3783
Start Time	0930
Initial Pressure (PSI)	-30
Final Date	3/24/14
Stop Time	1729
Final Pressure (PSI)	-11

Sample Volume <small>Time(min) X $\frac{0.0125}{2.004}$ l/min = Sample Volume (l)</small>	5.98
--	------

Apparent Moisture Conditions (Dry, Moist, Wet)	Dry
---	-----

PID Screening Measurement (ppm)	0.0
--	-----

SF6 Screening Measurement (%)	-
--------------------------------------	---

Sample Depth/Height (ft)	+4
---------------------------------	----

* SS = Sub-slab
 IA = Indoor air
 OA = Outdoor Ambient

- Indicates Below Slab
 + indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14 @ 0730	-	---	-	---	21° 30.20
3/24/14 @ 1800	---	-	---	-	33° 30.09

Comments/Observations

Samplers	Date
JM	3/24/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location	AMBIENT
------------------------	---------

* Sample ID	OA-1-032414
Initial Date	3/24/14
Canister #	5069
Flow Controller #	5183
Start Time	0941
Initial Pressure (PSI)	-30
Final Date	3/24/14
Stop Time	1740
Final Pressure (PSI)	-24

Sample Volume <small>Time(min) \times 0.025 l/min = Sample Volume (l)</small>	5.98
--	------

Apparent Moisture Conditions (Dry, Moist, Wet)	DRY
---	-----

PID Screening Measurement (ppm)	0.3
--	-----

SF6 Screening Measurement (%)	-
--------------------------------------	---

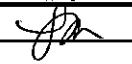
Sample Depth/Height (ft)	+4
---------------------------------	----

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14 @ 0730	-	-----	-	-----	21° 30.20
3/24/14 @ 1800	-----	-	-----	-	33° 30.09

Comments/Observations	

Samplers	Date
	3/24/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location	AMBIENT.
------------------------	----------

* Sample ID	OA-2-032414
Initial Date	3/24/14
Canister #	3403
Flow Controller #	3695
Start Time	0943
Initial Pressure (PSI)	-29
Final Date	3/24/14
Stop Time	1745
Final Pressure (PSI)	-9

* SS = Sub-slab

IA = Indoor air

OA = Outdoor Ambient

Sample Volume Time(min) X 0.0125 = Sample Volume (l)	6L
---	----

Apparent Moisture Conditions (Dry, Moist, Wet)	dry
---	-----

PID Screening Measurement (ppm)	0.3
--	-----

SF6 Screening Measurement (%)	-
--------------------------------------	---

Sample Depth/Height (ft)	+4
---------------------------------	----

- Indicates Below Slab

+ indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/24/14@ 0730	-	-----	-	-----	21', 30.20"
3/24/14@ 1800	-----	-	-----	-	33', 30.09

Comments/Observations	

Samplers	Date
pm	3/24/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location | TASTY TARTS

* Sample ID	SSV-01
Initial Date	3/25/14 3/26/14
Canister #	4112
Flow Controller #	2931
Start Time	0928
Initial Pressure (PSI)	-30
Final Date	@ 3/25/14 3/26/14
Stop Time	1658
Final Pressure (PSI)	-6

Sample Volume
Time(min) X 0.004 l/min = Sample Volume (l) | 5.63

Apparent Moisture Conditions (Dry, Moist, Wet) | Dry

PID Screening Measurement (ppm) | 169

SF6 Screening Measurement (%) | 8ppm

Sample Depth/Height (ft) | -0.5

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

- Indicates Below Slab
+ indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14 3/25/14 @ 0645	---	---	---	---	33°, 29.77"
3/26/14 3/25/14 @ 1630	---	---	---	---	33°, 29.88"

Comments/Observations

post sampling SF6 check: 148ppm

Samplers	Date
DM KOO	3/26/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location GRAND AVENUE FOOD & PRODUCE INC STORAGE AREA

* Sample ID	SSV-02
Initial Date	3/26/14
Canister #	4537 ←
Flow Controller #	4828 ←
Start Time	0852
Initial Pressure (PSI)	-30
Final Date	3/26/14
Stop Time	11024
Final Pressure (PSI)	-10

Sample Volume Time(min) X 0.004 l/min = Sample Volume (l)	5.65
---	------

Apparent Moisture Conditions (Dry, Moist, Wet)	DRY
---	-----

PID Screening Measurement (ppm)	0
--	---

SF6 Screening Measurement (ppm)	88.6
--	------

Sample Depth/Height (ft)	-0.5
---------------------------------	------

- Indicates Below Slab
+ Indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14@0645	—	—	—	—	33°, 29.77"
3/26/14@11030	—	—	—	—	33°, 29.88"

Comments/Observations

post sampling SF6 check: not completed due to malfunctioning equipment

Samplers	Date
JP JOP	3/26/14

Soil Vapor Intrusion VI Sample Collection Form

Tenant/Location	
------------------------	--

* Sample ID	SSV-03
Initial Date	3/26/14
Canister #	4837
Flow Controller #	4244
Start Time	0943
Initial Pressure (PSI)	-29
Final Date	3/26/14
Stop Time	1738
Final Pressure (PSI)	-4

Sample Volume <small>Time(min) X 0.004 l/min = Sample Volume (l)</small>	5.94
--	------

Apparent Moisture Conditions (Dry, Moist, Wet)	Dry
---	-----

PID Screening Measurement (ppm)	0.106
--	-------

SF6 Screening Measurement (% ppm)	38.2 ppm
--	----------

Sample Depth/Height (ft)	-0.5
---------------------------------	------

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14@0645	—	—	—	—	33°, 29.77
3/26/14@1630	—	—	—	—	33°, 29.88 "

Comments/Observations
post sampling SF6 check: not completed due to malfunctioning equipment.

Samplers	Date
AM ROP	3/26/14

Soil Vapor Intrusion VI Sample Collection Form

Tenant/Location | ADJACENT TO BATHROOM

* Sample ID	SSV-04
Initial Date	3/25/14
Canister #	4783
Flow Controller #	2768
Start Time	1049
Initial Pressure (PSI)	-30
Final Date	3/25/14
Stop Time	1819
Final Pressure (PSI)	-9

Sample Volume | 5.63
Time(min) X 0.004 l/min = Sample Volume (l)
~~0.40~~

Apparent Moisture Conditions (Dry, Moist, Wet) | DRY

PID Screening Measurement (ppm) | 48

SF6 Screening Measurement (% ppm) | 29.4 ppm

Sample Depth/Height (ft) | -0.5

- Indicates Below Slab
 + indicates Above Ground

* SS = Sub-slab
 IA = Indoor air
 OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (Inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/25/14 @ 0720	---	---	---	---	30 ^② , 30.1 ^① 28°, 30.09'
3/25/14 @ 1800	---	---	---	---	36°, 29.92"

Comments/Observations

post sampling SF6 check 33.7 ppm

Samplers	Date
pm koo	3/25/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location SET DRESSER STORAGE

* Sample ID	SSV-05
Initial Date	3/25/14
Canister #	3525
Flow Controller #	3364
Start Time	11:27
Initial Pressure (PSI)	-30
Final Date	3/25/14
Stop Time	18:59
Final Pressure (PSI)	-6

Sample Volume Time(min) X 0.004 l/min = Sample Volume (l)	5.65
---	------

Apparent Moisture Conditions (Dry, Moist, Wet)	DRY
---	-----

PID Screening Measurement (ppm)	189
--	-----

SF6 Screening Measurement (%)	51.3 ppm
--------------------------------------	----------

Sample Depth/Height (ft)	-0.5
---------------------------------	------

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/25/14@0720	-	---	-	---	28°, 30.09"
3/25/14@1800	---	-	---	-	36', 29.92

Comments/Observations

postsampling SF6 measurement: 90.6ppm

Samplers	Date
pm R.D.	3/25/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location ADJACENT TO UST

* Sample ID	SSV- 07 06
Initial Date	3/25/14
Canister #	3389
Flow Controller #	3111
Start Time	1008
Initial Pressure (PSI)	-29
Final Date	3/25/14
Stop Time	1738
Final Pressure (PSI)	-8

Sample Volume
Time(min) X 0.004 U/min = Sample Volume (l) 5.63

Apparent Moisture Conditions (Dry, Moist, Wet) Dry

PID Screening Measurement (ppm) 23.3

SF6 Screening Measurement (%) 85.2 ppm

Sample Depth/Height (ft) -0.15

- Indicates Below Slab
+ indicates Above Ground

* SS = Sub-slab
IA = Indoor air
OA = Outdoor Ambient

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/25/14 @ 0720	—	—	—	—	28°, 30.09'
3/25/14 @ 1800	—	—	—	—	36°, 29.92

Comments/Observations

post sampling SF6 measurement: 97.1 ppm

Samplers	Date
M AD	3/25/14

**Soil Vapor Intrusion
VI Sample Collection Form**

Tenant/Location	GRAND AVENUE FOOD AND PRODUCE INC. OFFICE
------------------------	---

* Sample ID	SSV-07
Initial Date	3/26/14
Canister #	2995
Flow Controller #	5637
Start Time	0833
Initial Pressure (PSI)	-30
Final Date	3/26/14
Stop Time	1745
Final Pressure (PSI)	-26

* SS = Sub-slab

IA = Indoor air

OA = Outdoor Ambient

Sample Volume	
Time(min) X 0.004 l/min = Sample Volume (l)	6L

Apparent Moisture Conditions (Dry, Moist, Wet)	Dry
---	-----

PID Screening Measurement (ppm)	0
--	---

SF6 Screening Measurement (%)	10.9
--------------------------------------	------


Sample Depth/Height (ft)	-0.5
---------------------------------	------

- Indicates Below Slab

+ indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14@0645	—	—	—	—	33°, 29.77
3/26/14@1630	—	—	—	—	33°, 29.88

Comments/Observations	
post sampling SF6 check: not completed due to malfunctioning equipment.	

Samplers	Date
 J. R. D. U.	3/26/14

Soil Vapor Intrusion VI Sample Collection Form

Tenant/Location	LOADING DOCK
------------------------	--------------

* Sample ID	SSV-08
Initial Date	3/26/14
Canister #	51616
Flow Controller #	3171
Start Time	0823
Initial Pressure (PSI)	-30
Final Date	3/26/14
Stop Time	1617
Final Pressure (PSI)	-9

Sample Volume Time(min) X 0.004 l/min = Sample Volume (l)	
---	--

Apparent Moisture Conditions (Dry, Moist, Wet)	DRY
---	-----

PID Screening Measurement (ppm)	459
--	-----

SF6 Screening Measurement (% ppm)	18.5
--	------

Sample Depth/Height (ft)	-0.5
---------------------------------	------

* SS = Sub-slab
 IA = Indoor air
 OA = Outdoor Ambient

- Indicates Below Slab
 + Indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14 @ 0645	---	---	---	---	33°, 29.77"
3/26/14 @ 1630	---	---	---	---	33°, 29.88"

Comments/Observations
Post sampling SF6 check: 374ppm

Samplers	Date
AM RJD	3/26/14

Soil Vapor Intrusion VI Sample Collection Form

Tenant/Location	LOADING DOCK
------------------------	--------------

* Sample ID	SSV-PD
Initial Date	3/26/14
Canister #	4309
Flow Controller #	3301
Start Time	0823
Initial Pressure (PSI)	-30
Final Date	3/26/14
Stop Time	1617
Final Pressure (PSI)	-16

Sample Volume	
Time(min) X 0.004 l/min = Sample Volume (l)	

Apparent Moisture Conditions (Dry, Moist, Wet)	Dry
---	-----

PID Screening Measurement (ppm)	—
--	---

SF6 Screening Measurement (%)	—
--------------------------------------	---

Sample Depth/Height (ft)	-0.5
---------------------------------	------

* SS = Sub-slab
 IA = Indoor air
 OA = Outdoor Ambient

- Indicates Below Slab
 + indicates Above Ground

Sampling Dates	Barometric Pressure (inches of Hg)		Temperature (°F)		Ambient Weather Conditions
	Initial	Final	Initial	Final	
3/26/14@ 0645	—	—	—	—	33°, 29.77"
3/26/14@ 1630	—	—	—	—	33°, 29.88"

Comments/Observations
duplicate sample of SSV-08

Samplers	Date
RAN KAD	3/26/14

GROUNDWATER PURGE FORMS

LOW FLOW GROUNDWATER PURGE/SAMPLE FIELD INFORMATION FORM



Site: Phoenix
 Location: Long Island City, Queens, NY

Project Number: 130-2414-01

Meter/Type/Serial #:

Horiba U-52 #

MONITORING WELL ID: SAC-15

Meter Calibrated @:

1500 / 0830 (8/24/14)

Depth to Water Prior to Purging [ft-bmp]: 14.45

Sampling Date/Time:

August 22 2014 (0930)

Well Casing Diameter [in]: 4"

Sampler(s):

Joe Huffman Jonathan Harris

Start Time (purging): 1700

Sampling Device:

Grundfos pump & teflon-lined tubing

Purging Device: Grundfos pump & teflon-lined tubing

Sampling Purge Rate:

8.5 gal/min

Pump Intake setting: 2.5 ft b_w

Sample Characteristics:

5 ft b_w other trace surf sed

Well Screen Interval: 13-28

PID Measurement of Well Headspace (ppm):

44 ppm

As-Built Construction Well Depth [ft-bmp]: 28 ft

Analytical Parameters:

VOC, SVOC, PCBs, Metals, CN, Alk, NO₂, Cl, TSS, TOC, DOC, Sulfate

Sounded Well Depth [ft-bmp]: 27.66

Fe+2 result (field measurement):

CO₂, MEE

Weather Conditions: 80°F Sun

NM

PPM

Time	Temperature [°C]	pH	Specific Conductance [µmhos/cm] or [µmhos]	Turbidity [ntu]	Dissolved Oxygen [mg/l]	Redox Potential [mV] Note - Indicate (+) or (-)	Depth To Water [ft-bmp]	Volume Purged [liters]	Approximate Purge Rate [ml/min]	Observations (PID readings, sample characteristics, equipment problems, etc.)
1510	21.95	7.0	3.70	200	0.0	-68	15.15	2	250	
1515	22.87	7.16	3.55	127	0.0	-84	16.82	3	300	Due to Drawdown + lack of Redox, low flow purging could be completed
1525	-	-	-	-	-	-	23.58	-	-	
1530	-	-	-	-	-	-	27.00	-	-	
0930	SAMPLE	/	SAC-15							8.5 gal/min
0930	SAMPLE	/					15.19	-	-	
0930	18.02	7.64	3.11	110	2.96	+46	19.88	11.0	gal	Begin Bailing =

Comments:

13.2 X, GS = 10g = 1 water volumes

Recovered 1 ft every 10 min / slow recovery

Signature:

GAUGING FORMS

Phoenix Property
Long Island City, New York
Well Inspection Survey

Monitoring Point ID	Well Screen (ft bgs) during installation	Date of Well Gauging	Well Diameter inches	Depth to LNAPL (ft-btoc)	Depth to Groundwater (ft-btoc)	Depth to bottom (ft-btoc)	Apparent LNAPL Thickness (ft)	PID (PPM)	Historical LNAPL Present and Last known Apparent Thickness (ft)	Comments / Observations	
RADI											
GAL-08	13-28	8/10	4	18.08	20.05	27.10	1.97	22.5	100	2.67	55.2
GAL-16R	11-27	8/18	2	16.15	21.65	28.92	5.50	0	0	6.02	55.5
GAL-03	15-30	—	4	—	—	—	—	0	6.5	NM	Well no longer existing, Reported previous
PHOENIX											
GAL-14	10-30	8/18	4	13.00	15.85	28.83	2.85	8.1	19.3	0.37	225
GAL-15	13-28	8/18	4	—	14.50	27.80	—	4.4	40	—	2772
GAL-17	7-27	8/18	4	12.79	16.95	29.50	4.16	2.7	100	3.11	45.0
GAL-25	7-27	8/18	4	13.21	13.22	26.54	0.01	0.6	0	0.09	0
GAL-26	8-28	8/18	4	12.95	16.91	26.89	3.96	5.9	14.8	1.8	70.4
GAL-32	5-25	8/18	2	11.25	14.90	—	3.65	19.5	34	4.34	65.3
GAL-33	8-28	8/18	2	12.85	18.92	27.61	6.07	2.5	18.3/4	4.67	1287
GAL-34	8-28	8/18	2	12.12	12.19	27.32	2.02	12.7	5/12	—	70.4 36.2
GAL-35	8-28	8/18	2	13.17	19.10	26.57	5.93	11.6	57	4.73	48.2
GAL-36	8-28	8/18	2	13.32	18.42	27.77	5.10	2.6	100	2.5	70.85
GAL-37	8-28	8/18	2	13.32	15.80	27.80	2.48	2.7	100	0.06	2970
MW-8	NA	8/18	2	14.00	19.54	23.42	5.54	0	0	4.89	0
WASTE MANAGEMENT											
MW-6	18-23	8/18	2	10.15	10.40	22.50	0.25	7.7	34	0.27	31.6
MW-6S	4-14	8/18	4	9.60	10.80	13.96	1.20	11.2	100	0.56	33.8
MW-1	6-18	8/18	4	—	10.74	18.70	—	9.9	100	—	28.1
MW-37	5-19	—	NA	—	—	—	—	—	—	—	NA
MW-38	5-20	8/18	NA	—	10.75	20.17	—	2.5	14	—	26.8
LENOBLE											
MW-54	5-25	8/18	NA	9.25	9.65	19.55	0.40	0	100	0.88	1372
MW-55	5-25	8/18	NA	9.44	15.05	21.05	5.61	22	150	6.4	0
MW-56	10-30	8/18	NA	14.42	14.60	23.30	2.18	19.2	0	6.65	NA

NO SAMPLE

September 3, 2014

Phoenix Property
Long Island City, New York
Well Inspection Survey

Monitoring Point ID	Well Screen (ft bgs) during installation	Date of Well Gauging	Well Diameter inches	Depth to LNAPL (ft-btoc)	Depth to LNAPL (ft-btoc) September 3, 2014	Depth to Groundwater (ft-btoc)	Depth to Groundwater (ft-btoc) September 3, 2014	Depth to bottom (ft-btoc)	Apparent LNAPL Thickness (ft)	Apparent LNAPL Thickness September 3, 2014 (ft)	PID (PPM)	LEL%	Historical LNAPL Present and Last known Apparent Thickness (ft)	FID	Comments / Observations
RADI															
GAL-08	13-28	8/18/2014	4	18.08	18.19	20.05	19.95	27.10	1.97		12.1	28	2.67	1910	
GAL-16R	11-27	8/18/2014	2	16.15	16.18	21.65	22.65	28.92	5.50		9.8	100	6.02	27.30	
GAL-03	15-30	-	4	-	-	-	-	-	-	-	-	-	NM	-	
PHOENIX															
GAL-14	10-30	8/18/2014	4	13.00	12.95	15.85	14.97	28.83	2.85		2.1	0.0	0.37	0.0	0 on all meters prior to opening.
GAL-15	13-28	8/18/2014	4	-	NM	14.5	15.48	27.80	-		1.7	0.0	-	10.8	0 prior to opening
GAL-17	7-27	8/18/2014	4	12.79	12.84	16.95	16.91	22.50	4.16		0.7	0.0	3.11	0.0	0 on all meters prior to opening
GAL-25	7-27	8/18/2014	4	13.21	NM	13.22	13.27	26.54	0.01		0.9	0.0	0.09	4.8	0 on all meters prior
GAL-26	8-28	8/18/2014	4	12.95	12.69	16.91	16.95	26.89	3.96		50.3	0.0	1.8	73.7	0 on all meters prior to opening
GAL-32	5-25	8/18/2014	2	11.25	11.35	14.9	14.40	NM	3.65		89.2	100%	4.34	2.5	0 on all meters prior to opening
GAL-33	8-28	8/18/2014	2	12.85	12.90	18.92	18.82	27.61	6.07		23.4	0.0	4.67	0.0	0 on all meters prior to opening
GAL-34	8-28	8/18/2014	2	12.12	12.25	12.14	12.27	27.32	0.02		40.1	0.0	-	801.6	0 on PID/FID on LEL.
GAL-35	8-28	8/18/2014	2	13.17	13.16	19.1	19.62	26.57	5.93		36.6	100%	4.73	126.2	0 on all meters
GAL-36	8-28	8/18/2014	2	13.32	13.39	18.42	18.60	27.77	5.10		15.3	NA	2.5	199.8	0 on PID/FID prior to opening
GAL-37	8-28	8/18/2014	2	13.32	13.35	15.8	16.32	27.10	2.48		13.6	100%	0.06	2730	0 on all meters prior to opening
MW-8	NA	8/18/2014	2	14.00	14.07	19.54	19.25	23.42	5.54		3.8	0	4.89	0.0	0 on all meters prior to opening
WASTE MANAGEMENT															
MW-6	18-23	8/18/2014	2	10.15	10.07	10.4	10.98	22.50	0.25		28	10	0.27	46.3	
MW-6S	4-14	8/18/2014	4	9.60	9.77	10.8	10.40	13.96	1.20		0.0	77	0.56	12.6	
MW-1	6-18	8/18/2014	4	-	-	10.74	10.96	18.70	-		15.2	18	-	47.7	
MW-37	5-19	-	4	-	-	-	-	-	-		-	-	-	-	
MW-38	5-20	8/18/2014	4	-	-	10.75	10.86	20.17	-		18.5	19	-	33	
LENDLE															
MW-54	5-25	8/18/2014	4	9.25	9.40	9.65	9.85	19.55	0.40		3.5	100	0.88	66.2	0 prior to opening
MW-55	5-25	8/18/2014	4	9.44	9.48	15.05	15.07	21.05	5.61		14	0	6.4	0.0	0 prior to opening
MW-56	10-30	8/18/2014	2	14.42	14.32	14.6	17.72	23.30	0.18		111.1	0	-	283.9	

Notes
NM - Not Measured

GAL-34 - 12.25

118-533-5310

APPENDIX C
NYSDOH IAQ FORM

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name T. Sharko Date/Time Prepared 03/14/2014

Preparer's Affiliation Golder Associates Phone No. 856-793-2006

Purpose of Investigation VI Sampling

1. OCCUPANT: Various tenants (see reverse)

Interviewed: **Y/N**

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: N/A Office Phone: _____

Number of Occupants/persons at this location +20 Age of Occupants +18
(workers)

2. OWNER OR LANDLORD: (Check if same as occupant)

Interviewed: **(Y)N**

Last Name: Simeone First Name: Pat

Address: _____

County: _____

Home Phone: N/A Office Phone: 718-609-7456

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

Dave Weinmen Stage Dressers (cart)

Adam's Apple

LIC Beverages

Guardian Data Destruction

Vermont Bakery

Phoenix Beverage

Square Distributors

Public Morals Storage

Grand Avenue Food & Beverage

Tasty Tarts / Tasty Table

Providence Construction

Onion Tree

If the property is residential, type? (Circle appropriate response)

- | | | |
|--------------|-----------------|-------------------|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other: _____ |

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Various storage (food, stage props, electronics, maintenance equipmt, lubricants)
 Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 1/4 Building age 242 yrs (built 1972)
 Is the building insulated? Y / N How air tight? Tight / Average / Not Tight
~50%, in random locations

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

via stairwells and entry doors

Airflow near source

N/A

Outdoor air infiltration

Via open bay doors, loading dock area, vents.

Infiltration into air ducts

vents

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: N/A full crawlspace slab other _____
- c. Basement floor: N/A concrete dirt stone other _____
- d. Basement floor: N/A uncovered covered covered with _____
- e. Concrete floor: unsealed sealed sealed with unknown. painted in one area
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: N/A wet damp dry moldy
- i. The basement is: N/A finished unfinished partially finished
- j. Sump present? Y N sewer injection pits
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: N/A (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

moderate cracks in floors at various locations.
↳ not through concrete (~6" thick)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

- Hot air circulation
- Space Heaters
- Electric baseboard
- Heat pump
- Stream radiation
- Wood stove
- Hot water baseboard
- Radiant floor
- Outdoor wood boiler
- Other hanging overhead heater.

The primary type of fuel used is:

- Natural Gas
- Electric
- Wood
- Fuel Oil
- Propane
- Coal
- Kerosene
- Solar

Domestic hot water tank fueled by: Natural Gas.

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

office

warehouse

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Four horizontal lines for describing ductwork.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time (circled) Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Warehouse Basement	various storage
Office 1 st Floor	offices
2 nd Floor	offices
3 rd Floor	offices
4 th Floor	—

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? N/A Y/N vehicles do enter warehouse in loading/unloading parking
- b. Does the garage have a separate heating unit? Y/N/NA hanging warehouse heaters
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y/N/NA Please specify _____
- d. Has the building ever had a fire? Y/N/NA When? _____
- e. Is a kerosene or unvented gas space heater present? Y/N Where? _____
- f. Is there a workshop or hobby/craft area? Y/N Where & Type? maintenance areas/rooms
- ↳ one-tenant space
- g. Is there smoking in the building? Y/N How frequently? daily workers observed smoking within building walls
- h. Have cleaning products been used recently? Y/N When & Type? _____
- i. Have cosmetic products been used recently? Y/N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y N Where & When? Tasty Tarts/Tasty Table
w/in last week.
- k. Is there new carpet, drapes or other textiles? Y N Where & When? _____
- l. Have air fresheners been used recently? Y N When & Type? _____
- m. Is there a kitchen exhaust fan? N/A Y N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? N/A Y / N If yes, where vented? _____
- o. Is there a clothes dryer? N/A Y / N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? N/A Y / N When & Type? _____

Are there odors in the building? Y N
 If yes, please describe: food odors

Do any of the building occupants use solvents at work? Y N
 (e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly)
- Yes, use dry-cleaning infrequently (monthly or less)
- Yes, work at a dry-cleaning service
- No
- Unknown

Is there a radon mitigation system for the building/structure? Y N Date of Installation: _____
 Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: dry wells in parking lot
 Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: for stormwater

10. RELOCATION INFORMATION (for oil spill residential emergency) N/A

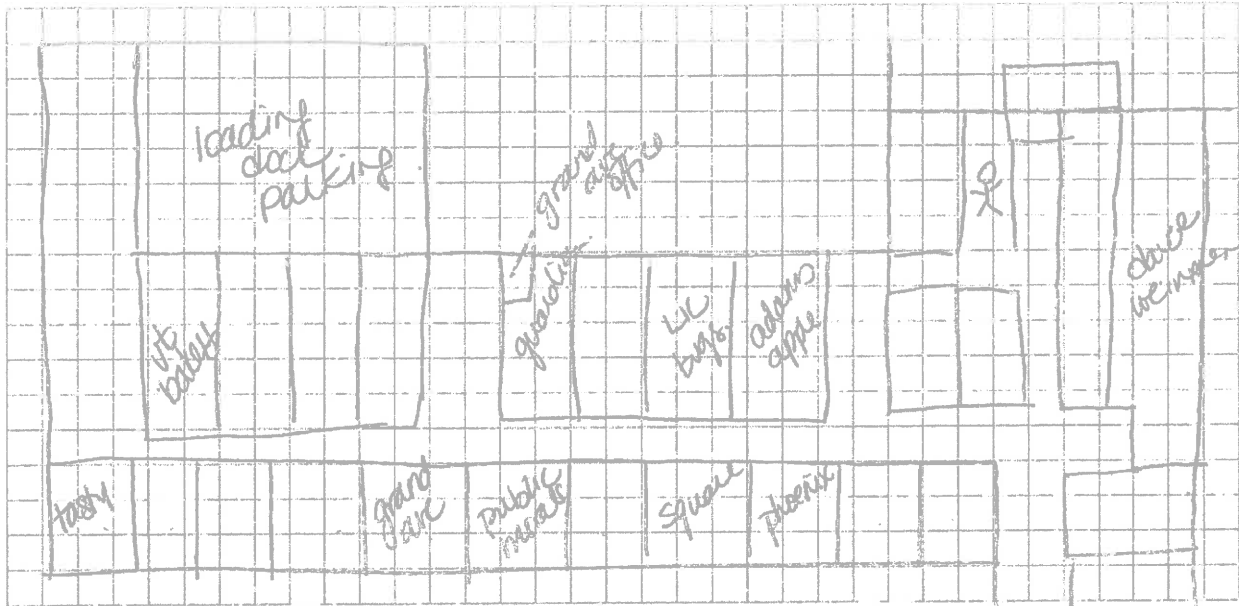
- a. Provide reasons why relocation is recommended: _____
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

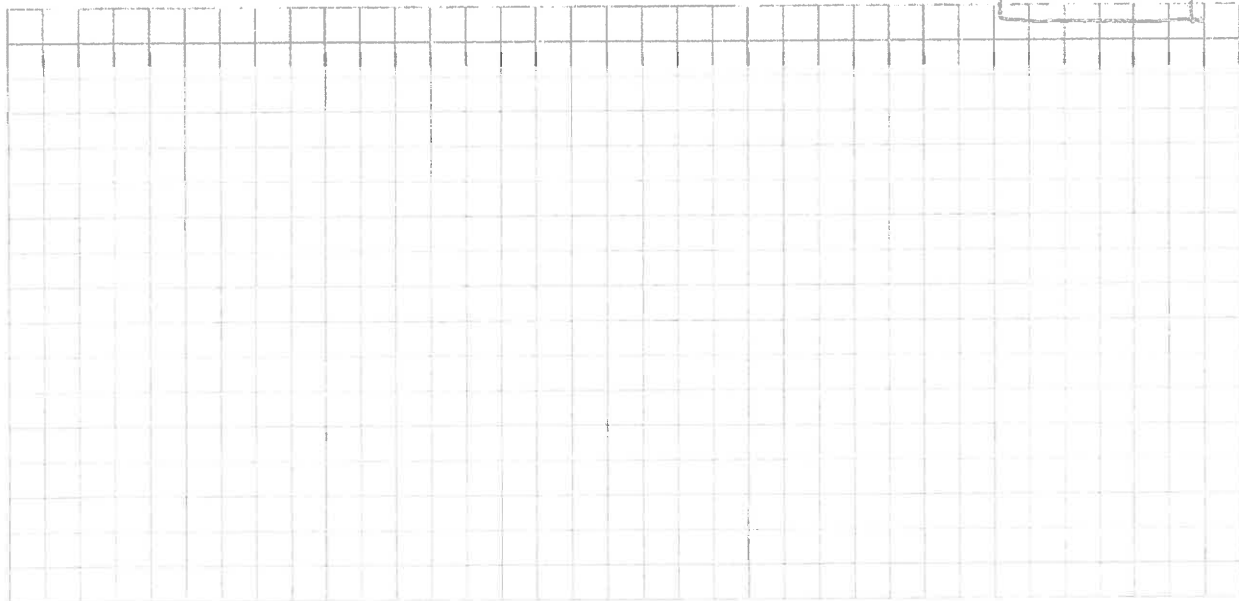
Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

* NOT TO SCALE *



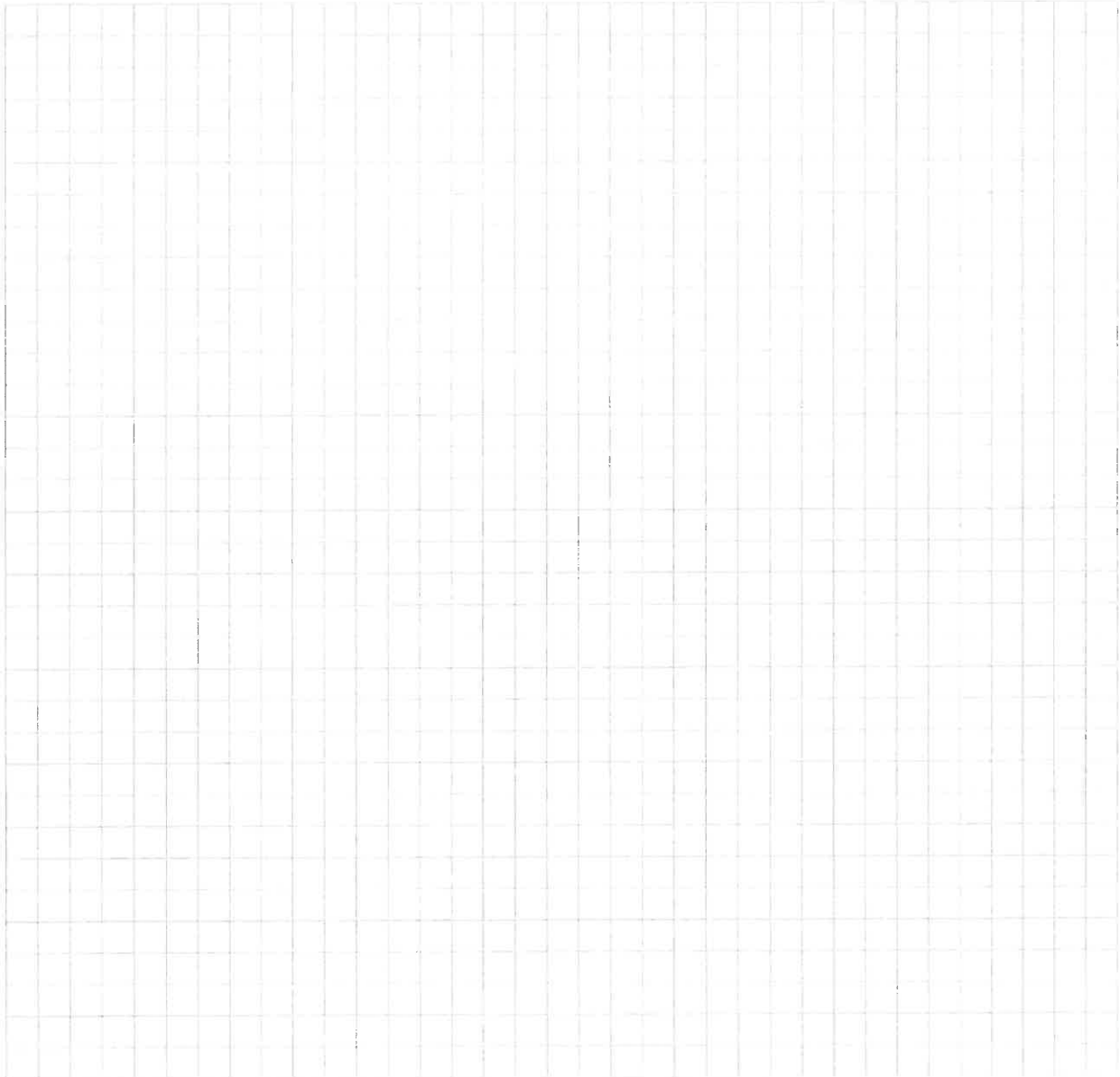
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Minural 2000

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y/N
1A-4	Xylene (Xylol)	1 Gal				
	Air Tool Oil No 1	1-Gal				
	ASPIR-SOLV (Diedrich)					
	SSal Foam Pur® (Hydro active grout)					
	Sikadur 330US (resin)					
	Cast-off (BASP)					
	Hanover Paver Mastic					
	Bituth — Liquid Men —					
	Butane					
	spray paints					
	spray lubricants					
	WD-40					
	Goof-off					
	Hardman EPOWELD 8173					
	Real-tuff Paste Thread Sealant					
	Elco Lube Paste					
	Hand Sanitizer					
	Coilhose Pneumatics Air Tool Lubricant ATL 0116					
	Level Quick Latex Primer					

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

IA-4 continued.

CAM2 MP2 multipurpose grease

IA-1 / SSV-7

alcohol (commercial)

windex

IA-3

no chemicals observed at time of site recon.

IA-2

no chemicals observed at time of site recon

SSV-2

lysol spray

lysol hand wipes

SSV-3

no chemicals observed at time of site recon

SSV-5

gasoline cans (empty)

APPENDIX D
COLUMBIA TECHNOLOGIES LIF REPORT

**Subsurface Characterization Using
Laser Induced Fluorescence (LIF) Technology
Phoenix Property
Long Island City, New York**

PREPARED FOR

Golder Associates
200 Century Parkway, Suite C
Mt. Laurel, New Jersey 08054

November 13, 2014

PREPARED BY

COLUMBIA Technologies, LLC
1448 South Rolling Road
Baltimore, Maryland 21227
410-536-9911
www.columbiatechnologies.com

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General LIF/UVOST[®] Log Interpretation	6
Correlating LIF/UVOST[®] to Sampling or Laboratory Analyses	6
SmartData Solutions[®]	7
Log Anomalies and Field Notes	7

FIGURES

Figure 1.... Sitemap and Locations

APPENDICES

Appendix A: LIF/UVOST[®] Logs

Appendix B: UVOST Response to Various Random Products Saturated on Wet Sand

Introduction

Golder Associates Inc. (Golder) contracted **COLUMBIA Technologies, LLC (COLUMBIA)** to conduct an investigation of subsurface contamination at the Phoenix Property site, located in Long Island City, New York. Direct sensing tooling used at the site included the Laser Induced Fluorescence/Ultraviolet Optical Screening Tool (LIF/UVOST[®]) technology to map the presence of petroleum hydrocarbons.

The investigation was conducted April 14th, 2014 and consisted of four LIF/UVOST[®] locations (LIF-34, LIF-35, LIF-36, and LIF-37) collected within a warehouse space (slab-on-grade) to depths ranging from 21.76 feet to 57.06 feet below ground surface (bgs). LIF profiles were collected at each location until no significant response was observed, or until refusal (LIF-34 and LIF-35). A Geoprobe[®] Direct Push Technology (DPT) drilling rig was used to advance the locations. All boring locations and depth intervals were placed under the direction of **Golder** staff.

Investigation Methodology

In order to access site locations inside the building, the LIF/UVOST[®] system, cables, rods and other ancillary items were dismantled from **COLUMBIA's** direct sensing van and secured onto a pallet, which was then moved around by a forklift. To ensure data quality, the same LIF/UVOST[®] equipment and LIF/UVOST[®] Reference Emitter (RE) standard were used throughout the investigation to collect a cohesive LIF/UVOST[®] data analysis package.

The locations were pre-cleared for utilities by **Golder** prior to advancing the LIF/UVOST[®] tool string, which was deployed using a track-mounted, direct-push, Geoprobe drill rig model 7822DT. The driller maintained a constant push/hammer rate of 2.0 centimeters/second (0.8 inches/second).

LIF/UVOST[®] results were reviewed during and after completion of each boring to discern the type and magnitude of product present. Immediately upon completion of each location, the dataset was wirelessly delivered to **COLUMBIA's** remote servers for Quality Assurance/Quality Control (QA/QC) review and upload to a password secure website using **COLUMBIA's** patented *SmartData Solutions*[®] technology. The results from each location are shown in Appendix A. Figure 1 contains a site map showing the LIF/UVOST[®] locations.

Observations

LIF responses indicating petroleum hydrocarbons were detected at depths as shallow as 2 feet bgs (LIF-35) and as deep as 57.06 feet bgs (LIF-35). Maximum response of 808%RE was observed at location LIF-37, at 15.32 feet bgs. Response above baseline values was observed at all four locations.

LIF/UVOST[®] system data is presented as a percentage of the normalized 100% RE performance standard. This standard consists of a blend of Non-Aqueous Phase Liquid (NAPL) and produces a consistent fluorescence response over the four wavelengths monitored by the LIF/UVOST[®] system. Collected data is then presented as a percentage of the RE. Using the same RE at each location and site, allows normalization of data collected over several locations, sites, or

screening events. The RE standard is provided by the equipment manufacturer and is the same for all LIF/UVOST[®] systems currently in operation. Any fluorescence response is normally indicative of petroleum hydrocarbons, though some naturally occurring materials such as limestone will also fluoresce to a lesser and more monochromatic degree.

Based on a correlation of observed fluorescence, LNAPL distribution and surface background readings, it was determined that LIF/UVOST[®] readings less than 3 % of the RE were attributable to background (natural) fluorescence of subsurface soils. Therefore, LIF/UVOST[®] responses greater than the established background reading were considered indicative of LNAPL impacts.

A description of the equipment and processes used in this characterization survey are presented in the following sections.

LIF/UVOST[®] Equipment Description

The LIF system utilized for this investigation is the latest generation UVOST[®] system developed by Dakota Technologies, Inc. (DTI) of Fargo, North Dakota. The system uses a high-energy laser to produce an ultraviolet light source for the detection of polycyclic aromatic hydrocarbons (PAHs). PAHs contain two or more fused aromatic rings and are common in many refined petroleum products (e.g., gasoline, kerosene, fuel oils) and are also formed during the incomplete burning of these petroleum products.

The LIF/UVOST[®] system consists of a xenon chloride (XeCl) excimer laser, a trunkline containing two silica fiber optic lines (launch and return) that are pre-strung through steel DPT rods, an optical detection system, a Panasonic Toughbook[®] laptop computer (Model CF-74), and a Shock Prevention Optical Cavity (SPOC). DTI developed and manufactured the SPOC that consists of a sapphire window, a highly polished, aluminum coated parabolic mirror, and a shock absorbing, proprietary elastomer support that maintains mirror alignment under the duress of percussion during advancement. The SPOC also contains Swagelock fittings to ensure long-term stability of the optical alignment (fiber optic cable and mirror) along with protection against breakage.

The SPOC is designed to be watertight. Any moisture entering the SPOC can result in evaporation into water vapor which can cause fogging on the interior surface of the sapphire window and cause corrosion of the optics mirror) and hardware within the SPOC. Any moisture in the SPOC may adversely affect background levels (i.e. increasing), thereby reducing fluorescence intensity. To significantly minimize the moisture content within the SPOC, a preventive measure is employed which is achieved by purging the SPOC with an inert gas immediately prior to reassembly any time it is open to the atmosphere for maintenance or adjustment. It is also crucial that the inert gas does not contain a bittering agent which promotes corrosion and hazing of the mirror.

The LIF/UVOST[®] system employs the pulsed XeCl laser that generates very fast pulses (< 10 nanoseconds) of 308 nanometers (nm) light at 50 megahertz. The 308 nm wavelength is sufficient in exciting a vast majority and variety of PAHs in the subsurface being screened. A beam splitter directs a small portion of the beam to an energy meter to monitor excitation pulse energy. A photodiode is positioned near the beam splitter which serves as the trigger source for the time-resolved fluorescence measurement that occurs with the oscilloscope. A lens is used to launch the laser light into a silica fiber optic line for delivery to the optical cavity. When the

excitation beam traveling through the launch fiber intersects the parabolic mirror, it is reflected 90 degrees, exits the SPOC through a sapphire window that is flush-mounted on the side of the SPOC and strikes the sediment that is pressed against the window as the probe advances through the subsurface. The sapphire's hardness on the Moh scale is 9 – second in hardness only to diamond. The hardness of the sapphire window virtually eliminates scratching, fracturing or breaking under the most severe conditions during probe advancement through natural geologic materials such as gravels, cobbles, boulders, etc.

Any PAHs present will absorb this photon energy in the form of fluorescence. This fluorescence is returned to the optical detection system via the second silica fiber optic line. Given that the silica fiber optic lines are readily broken if flexed or handled too aggressively, they are housed in a flexible polyurethane covered, stainless steel sheath with bend radius limiting qualities that greatly reduces fiber optic failure (cracked, fractured, or broken) rates.

The emitted fluorescence is measured and recorded in real time across four specific wavelengths, namely 350, 400, 450, and 500 nm. These wavelengths represent a common range of fluorescence associated with PAHs. Typically, the 'lighter' (lower molecular weight) fuels (e.g., jet fuel and gasoline) emit fluorescence at the shorter wavelengths, i.e., 350 and 400 nm, whereas the 'heavier' (higher molecular weight), less distilled PAH compounds such as bunker or diesel fuels emit fluorescence at longer wavelengths, i.e., 450 and 500 nm. The total monitored fluorescence is recorded and displayed in real-time at one second intervals as a function of depth on the LIF/UVOST[®] system computer. In addition, the intensity and duration of the fluorescence at each of the four monitored wavelengths are recorded and presented in real time at one second intervals as a separate graph on the LIF/UVOST[®] system computer.

Depth in feet is measured and recorded using a precision potentiometer with a 100-inch linear range. The potentiometer is mounted onto the mast of the DPT rig and a counter-weight anchored to the foot of the rig. Measurements are recorded on the down stroke of the mast, as the tooling string is pushed into the ground, and is accurate within 1/10th of an inch. The reference elevation (depth) reported for each individual boring is established by setting the data logger to zero feet with the window on the LIF/UVOST[®] probe aligned with the ground surface. True boring elevations can be established with the addition of survey data if provided for in the scope of work.

LIF/UVOST[®] System Performance Test

As a quality control check, the LIF/UVOST[®] system response is evaluated prior to and upon completion of each LIF/UVOST[®] screening location. This evaluation is completed using the RE standard.

In addition to obtaining a baseline RE for each location, the background reading of the LIF/UVOST[®] system is electronically recorded prior to insertion into the soil. This background reading is required to be below 0.5% of RE prior to the start of any testing. The background during tool advancement typically stays at or below the surface background reading – giving confidence that any increases in fluoresce are “true” readings and not fluctuations or variations in background.

General LIF/UVOST® Log Interpretation

There are three primary characteristics of fluorescence that are considered when interpreting LIF/UVOST® data. These characteristics are:

1. Fluorescence intensity - how brightly does the compound fluoresce,
2. Wavelength - what color does the compound fluoresce at, and
3. Duration - how long does the compound fluoresce at each monitored wavelength

Individual LIF/UVOST® logs consist of a primary graph of total fluorescence versus depth, an information box and up to five waveform “callouts”. In the primary fluorescence graph, depth is plotted on the Y axis and the combined total fluorescence intensity of the four monitored wavelengths is plotted on the X axis. Total fluorescence intensity is presented as a percentage of the RE standard. Since various PAHs fluoresce at differing intensities, there are several compounds that fluoresce brighter than the RE standard, and therefore the total RE can exceed 100%. Total fluorescence intensity is typically proportional to concentration and responds linearly as concentration increases.

Waveform callouts are presented along the left-hand side of the primary graph. These callouts present the fluoresce intensity of each of the monitored wavelengths on the Y axis (in microvolts (uV)) and the duration of fluorescence of each wavelength on the X axis. No scale is given along the X axis, however; it is a consistent 320 nanoseconds wide. The four peaks are due to the fluorescence at the four monitored wavelengths – called channels. Each channel is assigned a color. The colors correspond to the nm wavelength as follows: 350 - blue, 400 - green, 450 - orange, and 500 – red. Various NAPLs will have a unique waveform signature based on the relative amplitude of the four channels and/or the broadening of one or more of the channels. Callouts are selected by the operator and can correspond to a single point on the primary graph, or correspond to a depth range. It is noted under each callout whether it is a single depth point, or a depth range. The %RE shown under each callout will be the %RE at a single point, or the average %RE within a depth range.

The fill color of the response on the primary graph is based on the relative contribution of each of the four channels’ area versus the total waveform area. For example, a strong response on the orange channel with lesser response on the green and red channels may result in a medium orange color on the primary graph, whereas a moderate response on the green, orange and red channels may result in a yellowish color on the primary graph. This allows the viewer to discern different substances at different depths based on the fill color.

See Appendix B: UVOST Response to Various Random Products Saturated on Wet Sand for the expected wavelength signature for common compounds.

Correlating LIF/UVOST® to Sampling or Laboratory Analyses

Generalized correlation between LIF/UVOST® and laboratory sample results can be inferred, but cannot be viewed as a linear comparison. LIF/UVOST® response and laboratory results are collected, analyzed and reported in different units and by different procedures, so correlation is not an exact one-to-one comparison. The LIF/UVOST® uses a process whereas a 2D soil surface is exposed to excitation light, and any fluorescent light emitted is analyzed at the ground surface. Soil and groundwater results involve the collection of a sample, extraction of

sub-sample at the surface, and then transporting them to a laboratory for further extraction and analysis. These processes are different by definition.

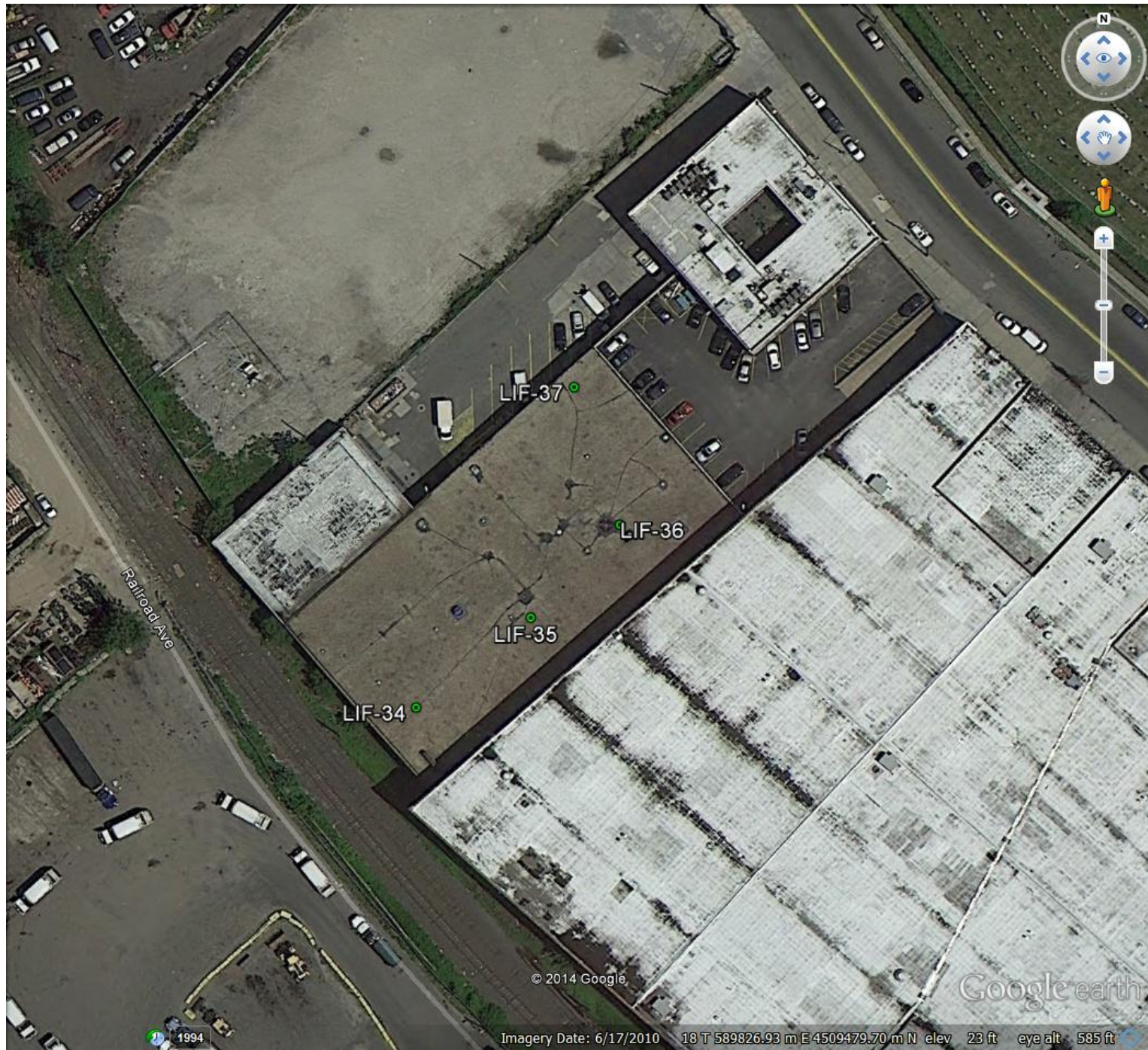
SmartData Solutions®

COLUMBIA's *SmartData Solutions*® is a patented process (U.S. Patent No, 7,058,509) that enables the rapid processing of field data into easy to understand 2D visualizations posted to a password protected website. This process includes QA/QC review, formatting and rapid visualization of the data for the project team and enables a complete check of the dataset prior to completion of fieldwork.

Log Anomalies and Field Notes

No log anomalies were noted.

SmartData Solutions® is a registered trademark of COLUMBIA Technologies LLC.
UVOST® is a registered trademark of Dakota Technologies Inc.
Geoprobe® is a registered trademark of Geoprobe Systems, Inc.



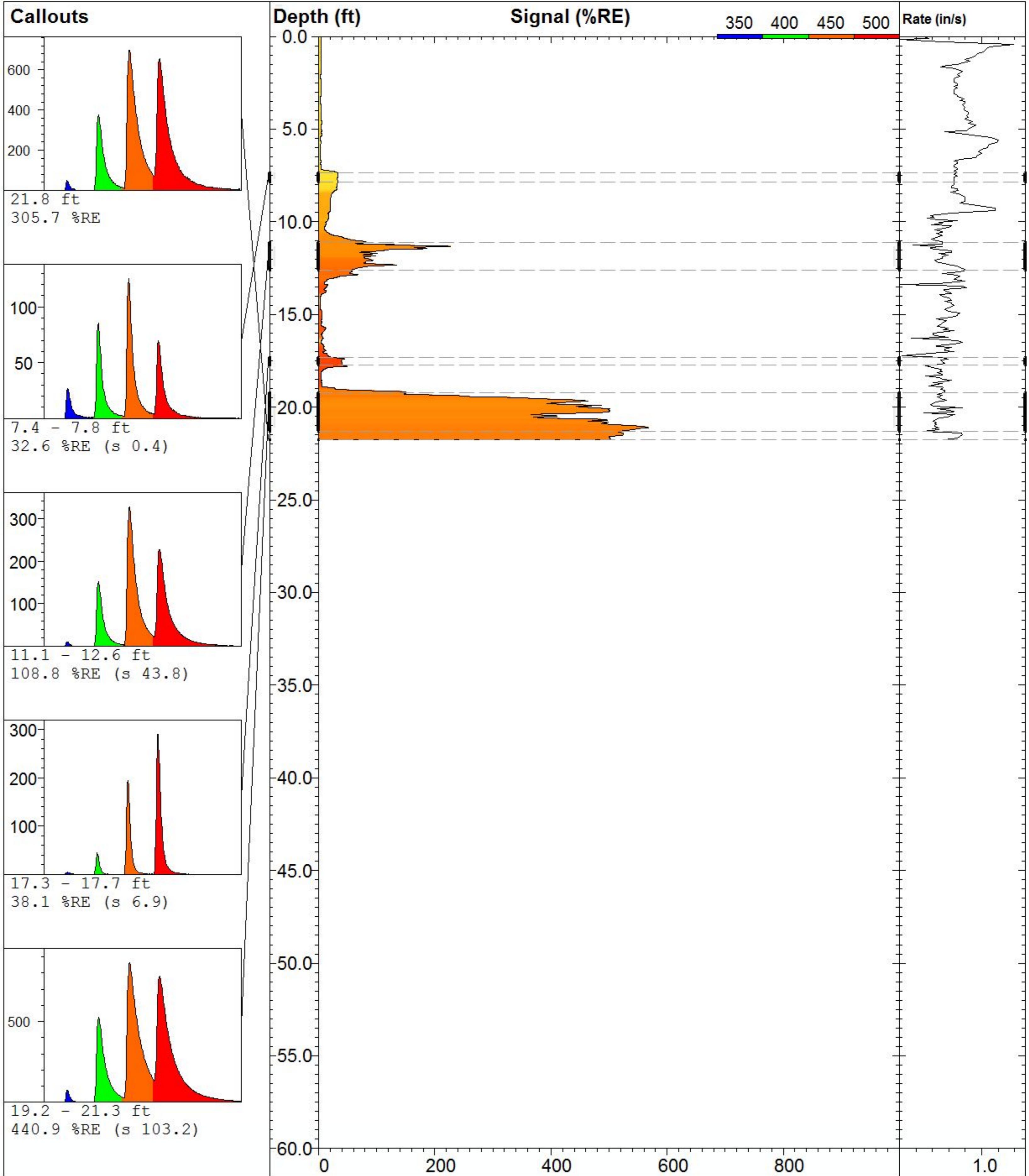
Legend

 LIF Location



Figure 1 Site Map and Locations
April 14th, 2014

APPENDIX A
LIF/UVOST® Logs

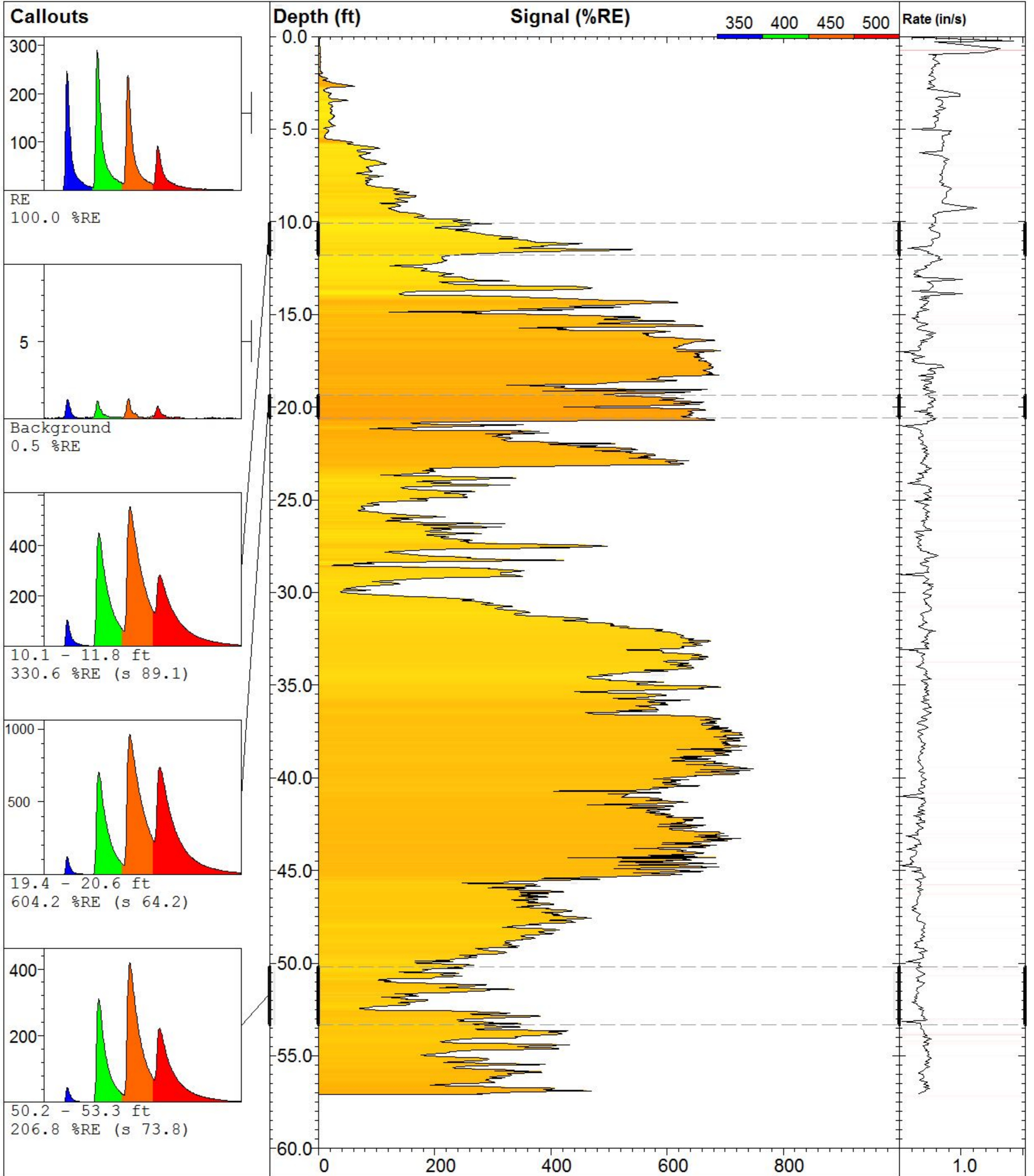


LIF-34

UVOST By Dakota
www.DakotaTechnologies.com



Site: Phoenix	Latitude / Datum: Unavailable / NA	Final depth: 21.76 ft
Client / Job: Golder /	Longitude / Fix: Unavailable / NA	Max signal: 567.5 %RE @ 21.10 ft
Operator/Unit: KVDV/UVOST1005	Elevation: Unavailable	Date & Time: 2014-04-14 14:04 EDT

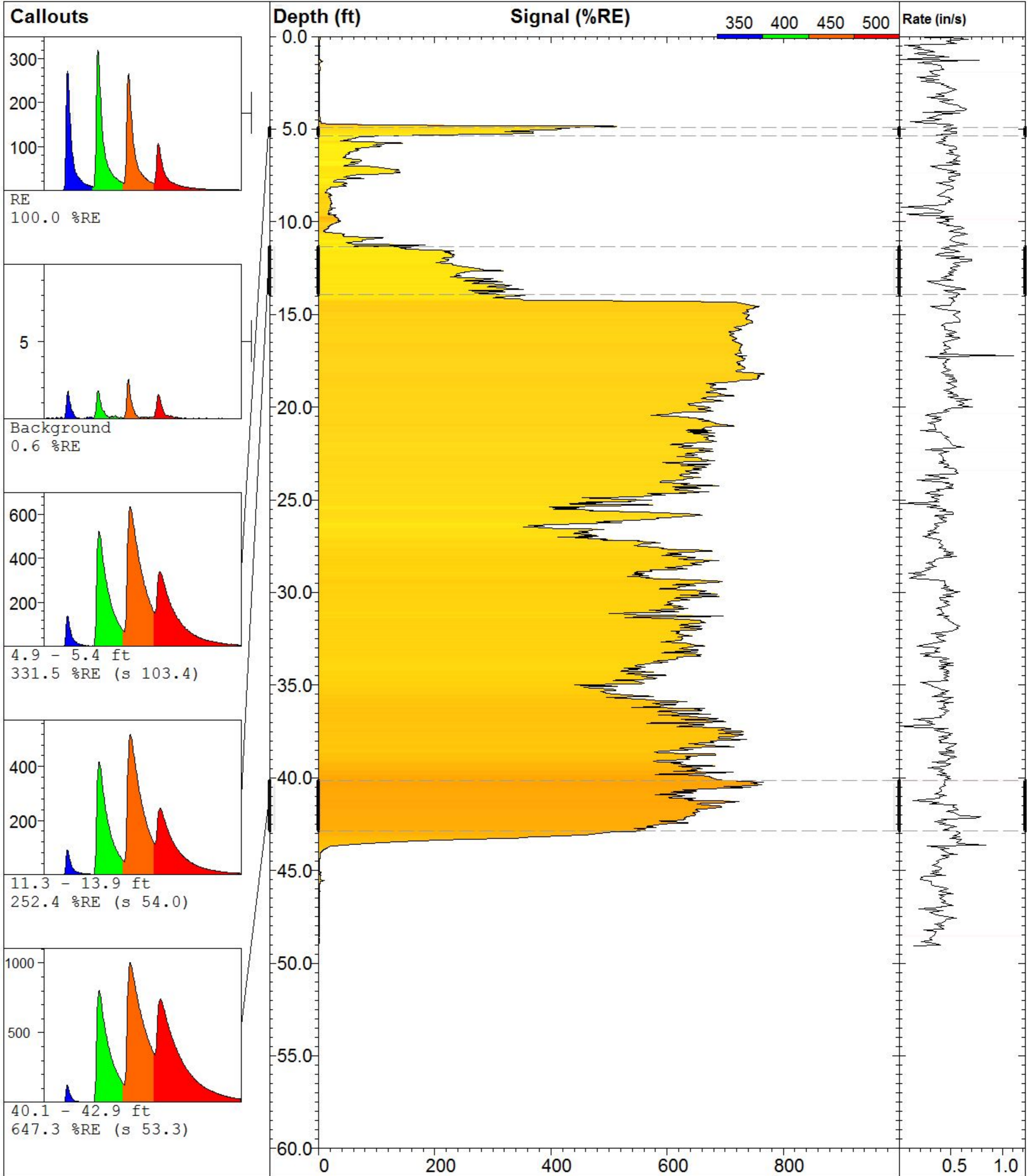


LIF-35

UVOST By Dakota
www.DakotaTechnologies.com



Site: Ohienix	Latitude / Datum: Unavailable / NA	Final depth: 57.06 ft
Client / Job: Golder /	Longitude / Fix: Unavailable / NA	Max signal: 748.7 %RE @ 39.52 ft
Operator/Unit: KVDV/UVOST1005	Elevation: Unavailable	Date & Time: 2014-04-14 12:05 EDT

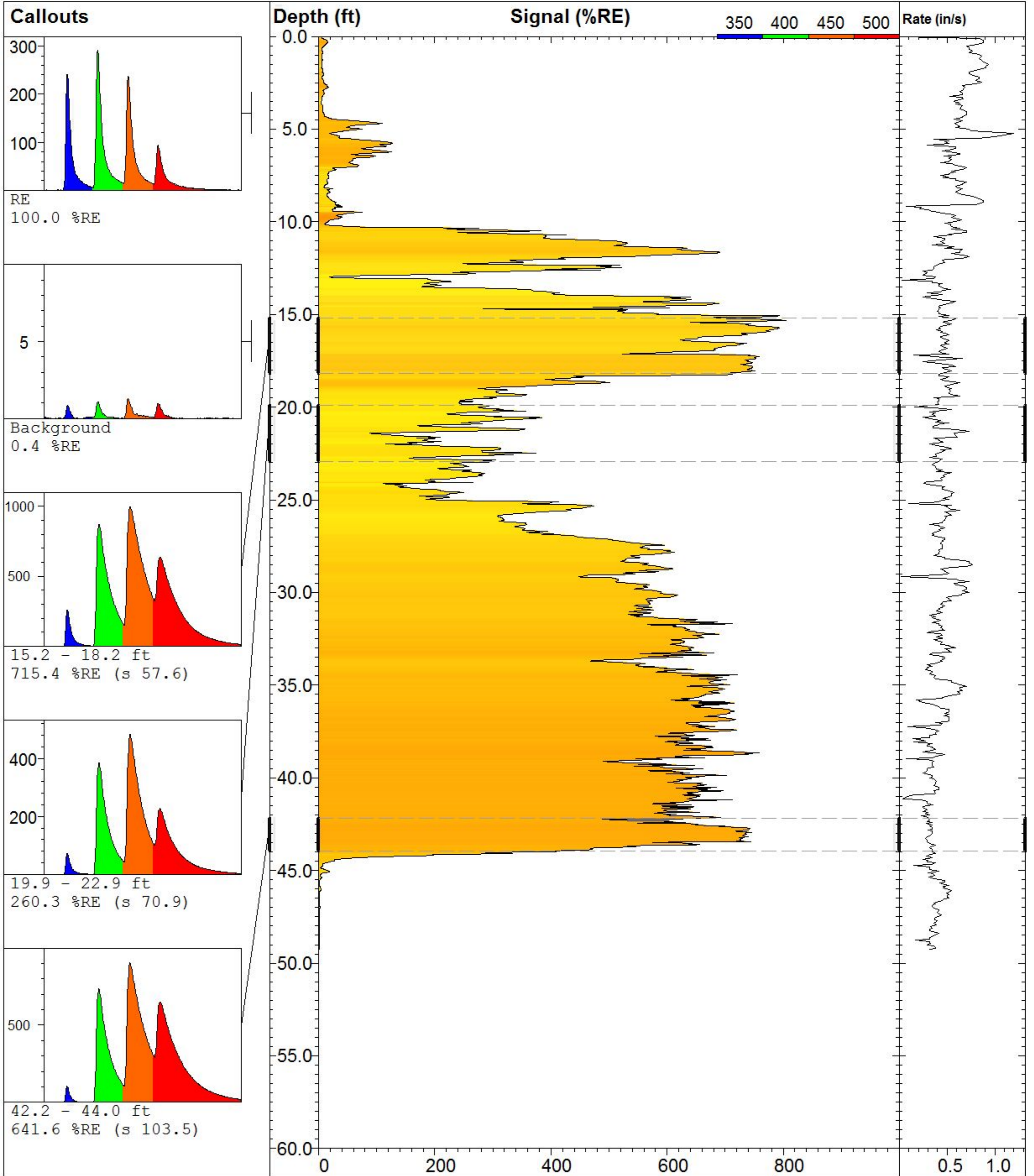


LIF-36

UVOST By Dakota
www.DakotaTechnologies.com



Site: Phoenix	Latitude / Datum: Unavailable / NA	Final depth: 49.10 ft
Client / Job: Golder /	Longitude / Fix: Unavailable / NA	Max signal: 768.5 %RE @ 40.25 ft
Operator/Unit: KVDV/UVOST1005	Elevation: Unavailable	Date & Time: 2014-04-14 09:02 EDT



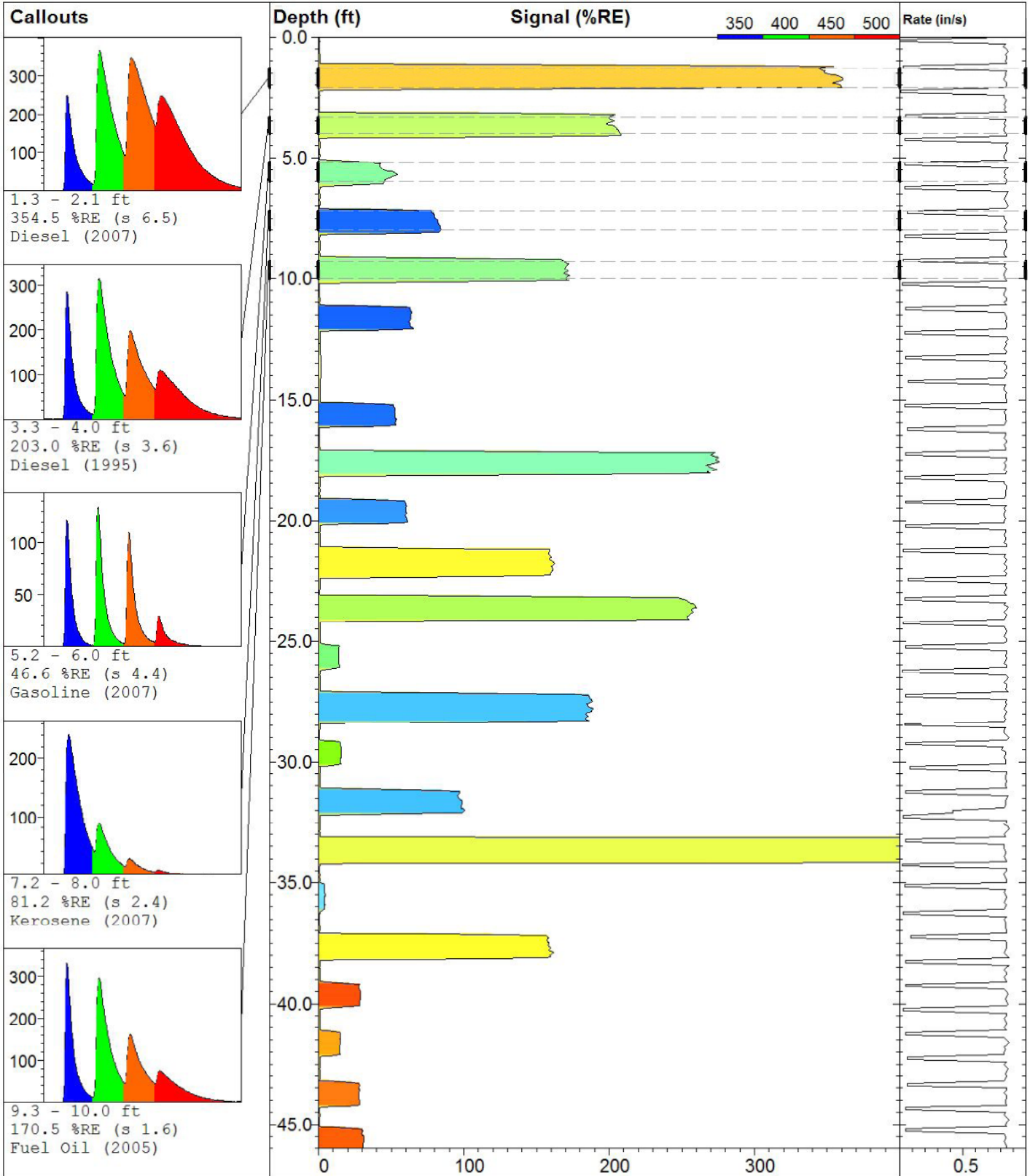
LIF-37

UVOST By Dakota
www.DakotaTechnologies.com

Site: Phoenix	Latitude / Datum: Unavailable / NA	Final depth: 49.25 ft
Client / Job: Golder /	Longitude / Fix: Unavailable / NA	Max signal: 808.0 %RE @ 15.32 ft
Operator/Unit: KVDV/UVOST1005	Elevation: Unavailable	Date & Time: 2014-04-14 15:04 EDT

APPENDIX B

UVOST Response to Various Random Products Saturated on Wet Sand



Dakota Technologies, Inc.
 Fargo, ND (701)237-4908
 www.DakotaTechnologies.com

Various products on sand

Site:
Examples

Client:
DTI

Job:

Latitude / Datum:
Unavailable / NA

Longitude / Fix:
Unavailable / NA

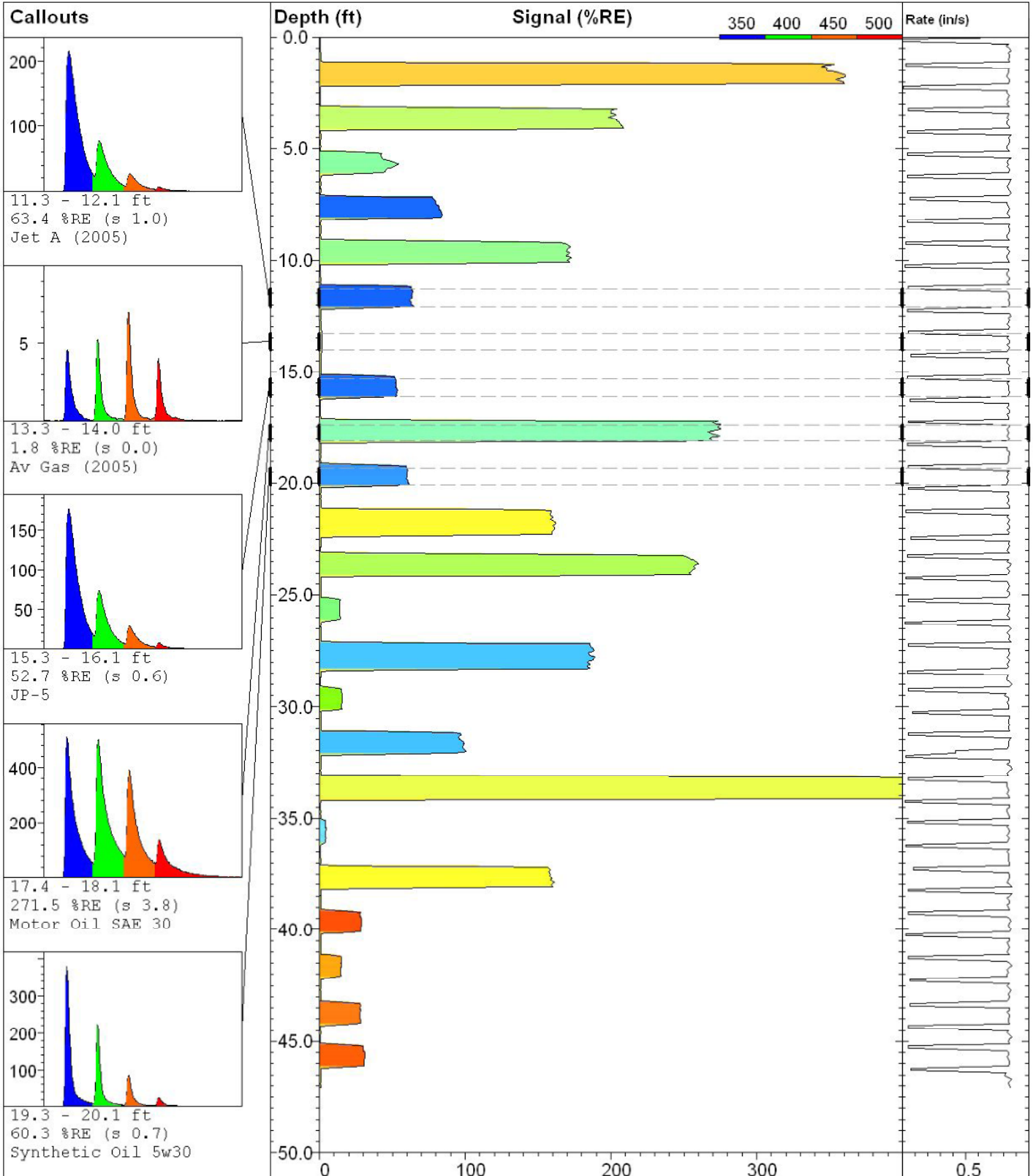
Operator/Unit:
T.Rudolph/UVOST1002

UVOST By Dakota
 www.DakotaTechnologies.com

Final depth:
47.10 ft

Max signal:
826.6 % @ 33.20 ft

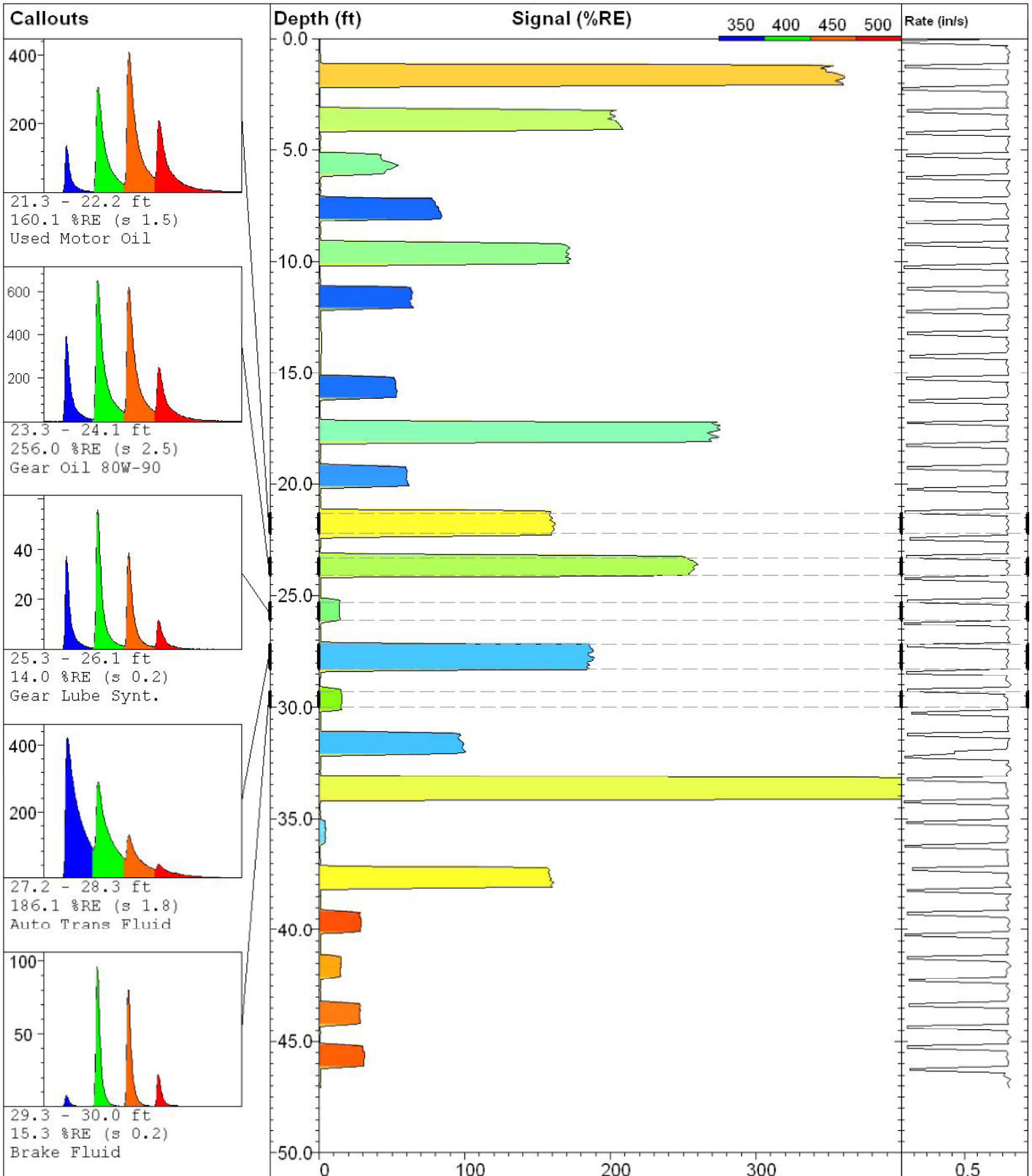
Date & Time:
2007-08-24 14:25 CDT



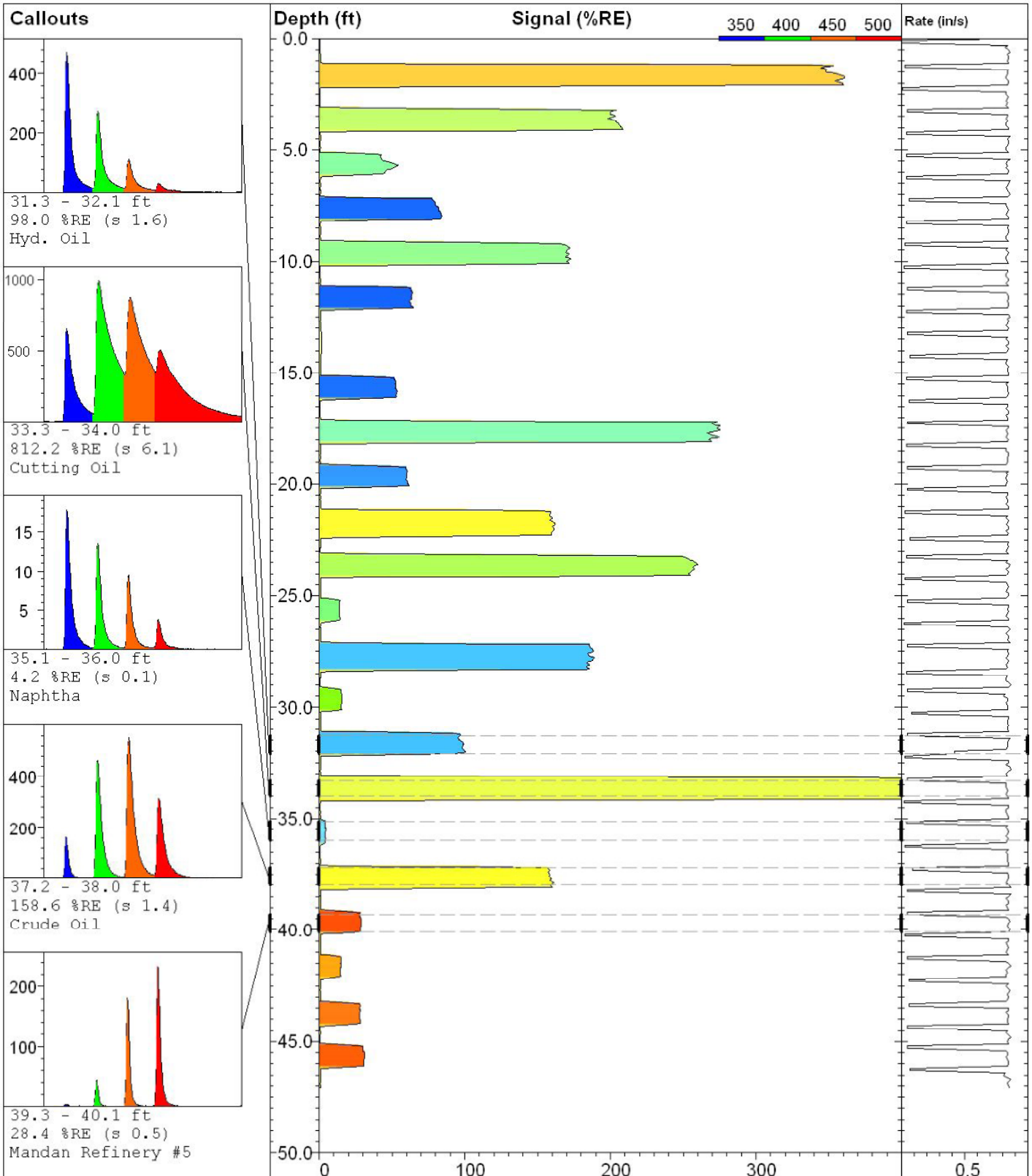
Various products on sand

UVOST By Dakota
 www.DakotaTechnologies.com

Site: Examples	Latitude / Datum: Unavailable / NA	Final depth: 47.10 ft
Client: DTI	Longitude / Fix: Unavailable / NA	Max signal: 826.6 % @ 33.20 ft
Job:	Operator/Unit: T.Rudolph/UVOST1002	Date & Time: 2007-08-24 14:25 CDT



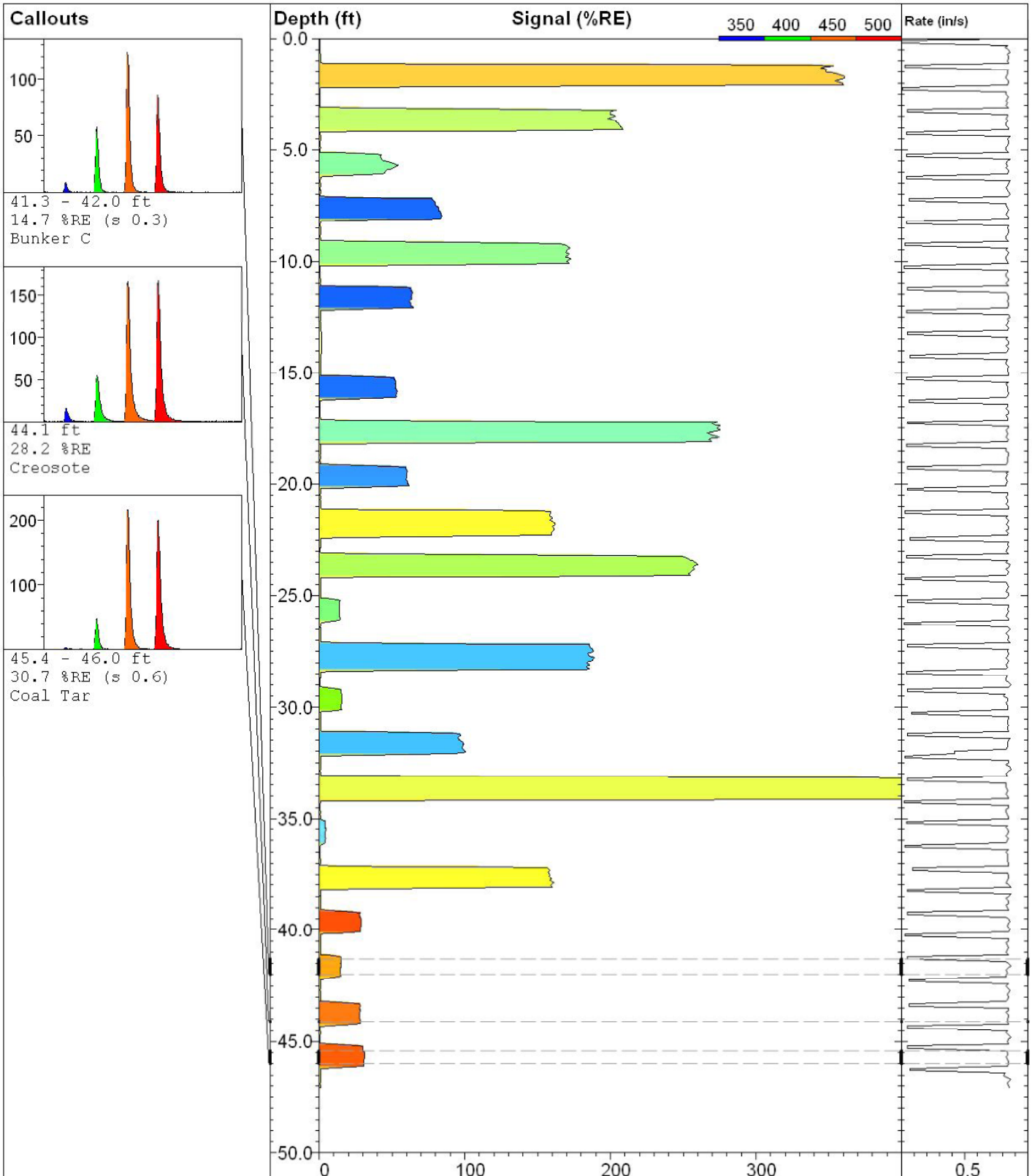
Various products on sand		UVOST By Dakota www.DakotaTechnologies.com
Site: Examples	Latitude / Datum: Unavailable / NA	Final depth: 47.10 ft
Client: DTI	Longitude / Fix: Unavailable / NA	Max signal: 826.6 % @ 33.20 ft
Job:	Operator/Unit: T.Rudolph/UVOST1002	Date & Time: 2007-08-24 14:25 CDT



Various products on sand

UVOST By Dakota
 www.DakotaTechnologies.com

<i>Site:</i> Examples	<i>Latitude / Datum:</i> Unavailable / NA	<i>Final depth:</i> 47.10 ft
<i>Client:</i> DTI	<i>Longitude / Fix:</i> Unavailable / NA	<i>Max signal:</i> 826.6 % @ 33.20 ft
<i>Job:</i>	<i>Operator/Unit:</i> T.Rudolph/UVOST1002	<i>Date & Time:</i> 2007-08-24 14:25 CDT



Various products on sand		UVOST By Dakota www.DakotaTechnologies.com
Site: Examples	Latitude / Datum: Unavailable / NA	Final depth: 47.10 ft
Client: DTI	Longitude / Fix: Unavailable / NA	Max signal: 826.6 % @ 33.20 ft
Job:	Operator/Unit: T.Rudolph/UVOST1002	Date & Time: 2007-08-24 14:25 CDT

APPENDIX E
WELL LOGS

NEW WELLS

RECORD OF BOREHOLE GAL-34

SHEET 1 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 45.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/10/14
 DATE COMPLETED: 4/18/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,353.1 E: 735,611.7
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.0 ft
 TEMPERATURE: 40-60F

INCLINATION: -90
 DEPTH W.L.: 12.4 ft
 ELEVATION W.L.: 3.6 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 12:47 pm

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT		
0	0.0	0.0 - 0.5 Concrete (Soft Dig-0-5ft bgs)	SM		16.1					Flush Mount Protective Assembly Annulus Grout 0-5.0ft bgs Filter Pack Seal 5-6ft bgs (#00 SAND) Filter Pack 6-28ft bgs (#2 SAND) Screened 8-28ft bgs (0.020 slot) 2 inch, direct push borehole collapse 28.5-45ft bgs	GAL-34 Borehole Diameter: 8 inch WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons
15	0.5 - 1.7	FILL-silty SAND, some fine gravel, tan brown, no odor, moist, loose.	SM		14.9						
	1.7 - 2.0	FILL- silty SAND, some gravel, fine, black stained, no odor, moist, loose.	SM		14.1						
	2.0 - 2.5	FILL- granite cobblestone (6 inches thick by 10 inches length).	SW		2.5	0.0	NA	5.0	5.0		
5	2.5 - 9.0	FILL-gravelly sand, tan, some concrete brick fragments, orange, slight odor, moist, loose.	SW		7.6						
	9.0 - 10.0	FILL-gravelly SAND with fines, some angular rock fragments, black stained, moderate odor, moist, loose.	SW		9.0						
	10.0 - 15.0	No recovery (two attempts).			6.6	24.0					
	15.0 - 20.0	FILL- silty SAND, some rock fragments, trace silt, gray black, non-cohesive, strong odor, wet, loose.	SM		15.0						
20	20.0 - 23.0	(SP) SAND, fine, some gravel, fine, rounded, gray brown to black stained, non-cohesive, moderate odor, wet, compact.	SP		20.0						
	23.0 - 25.0	(SW) SAND, coarse to fine, well graded, some gravel, fine, rounded, gray brown to black stained, non-cohesive, moderate odor, wet, compact.	SW		23.0						
25	25.0 - 30.0	Poor recovery, slough material observed.	SW		25.0						
	30.0 - 35.0	(SP) SAND, fine to medium, non-cohesive, gray brown, moderate odor, wet, compact.	SP		30.0						
	35.0 - 40.0	(SP) SAND, fine to medium, trace mica, gray brown, non-cohesive, moderate odor, wet, compact.	SP		35.0						
40		Log continued on next page			23.5						

AA BOREHOLE RECORD PHOENIX GPJ GOLDER NJ-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-34



SHEET 2 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 45.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/10/14
 DATE COMPLETED: 4/18/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,353.1 E: 735,611.7
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.0 ft
 TEMPERATURE: 40-60F

INCLINATION: -90
 DEPTH W.L.: 12.4 ft
 ELEVATION W.L.: 3.6 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 12:47 pm

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES					MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS							
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT										
40	-25	40.0 - 45.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded to subrounded, gray brown to black stained, non-cohesive, slight odor, wet, compact.	SW		40.0	5.1	8	MACRO CORE	5.0 5.0	GAL-34		GAL-34 Borehole Diameter: 8 inch WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons							
					4.0	7.0							7.5	7.8					
					-28.5														
45	-30				Boring completed at 45.0 ft														
50	-35																		

AA BOREHOLE RECORD PHOENIX GPJ GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-35

SHEET 1 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 50.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/10/14
 DATE COMPLETED: 4/17/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,352.4 E: 735,610.4
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.0 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 18.1 ft
 ELEVATION W.L.: -2.1 ft
 DATE W.L.: 4/22/14
 TIME W.L.: ~12PM

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT		
0	0.0	0.0 - 0.5 Concrete (Soft Dig-0-5ft bgs)	SM		16.1					Flush Mount Protective Assembly	GAL-35 Borehole Diameter: 8 inch WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons
15	0.5 - 1.5 1.5 - 5.0	FILL- silty SAND, some gravel, fine, angular, trace orange, brick fragments, brown to brown gray no odor, moist, loose. FILL- gravelly silty SAND, black stained, no odor, moist, loose.	SM SW	 	0.5 15.1 1.5		NA				
5	5.0 - 8.5	FILL- gravelly SAND and fines, black, some coal fragments, trace timber, slight odor, moist, loose.	SW		11.6 5.0	2.8				Filter Pack Seal 5-6ft bgs (#00 SAND)	
10	8.5 - 10.0	(ML) sandy SILT, brown, non-cohesive, slight odor, moist, soft.	ML		8.1 8.5	5.3 5.3	1	MACRO CORE	.37 5.0		
10	10.0 - 15.0	(SM) silty SAND, fine, gray brown, non-cohesive, slight odor, moist, compact.	SM		6.6 10.0	7.2				Filter Pack 6-28ft bgs (#-2 SAND) Screened 8-28ft bgs (0.020 slot)	
15	15.0 - 20.0	No recovery. Hammered through to 20ft bgs with direct push.			1.6 15.0	5.4 20	3	MACRO CORE	1.3 5.0		
20	20.0 - 24.0	(SW) SAND, coarse to fine, well graded, some gravel, fine, subrounded to subangular, gray brown to oil saturated (free product), non-cohesive, moderate to strong odor, wet, compact.	SW		-3.4 20.0	15.6				2 inch, direct push borehole collapse 28.5-50ft bgs	
25	24.0 - 25.0	(ML) SILT, trace fine sand, brown, cohesive, slight odor, moist, soft.	ML		-7.4 24.0 -8.4	32.7					
25	25.0 - 29.0	(SW) SAND, coarse to fine, well graded, some gravel, fine, rounded to subrounded, gray brown to black stained, non-cohesive, slight to moderate odor, wet, compact.	SW		25.0		5	MACRO CORE	2.4 5.0		
30	29.0 - 32.0	(SP) SAND, fine, gray brown, non-cohesive, slight odor, wet, compact.	SP		-12.4 29.0	10.8 22.9					
35	32.0 - 34.0	(SW) SAND, coarse to fine, well graded, some gravel, coarse to fine, rounded to subrounded, dark gray brown, non-cohesive, slight to moderate odor, wet, compact.	SW		-15.4 32.0	26.2 26	6	MACRO CORE	4.2 5.0		
35	34.0 - 35.0	(SP) SAND, fine, trace gravel, fine, rounded, gray brown with a trace of black staining, non-cohesive, slight odor, wet, compact.	SP		-17.4 34.0 -18.4	25.1					
40	35.0 - 42.0	(SP) SAND, medium to fine, trace gravel, fine, rounded, light gray, non-cohesive, slight odor, wet, compact.	SP		35.0	15.1 32.5 38.0 27.5 23.9	7	MACRO CORE	5.0 5.0		

AA BOREHOLE RECORD PHOENIX GPJ - GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-35


SHEET 2 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 50.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/10/14
 DATE COMPLETED: 4/17/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,352.4 E: 735,610.4
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.0 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 18.1 ft
 ELEVATION W.L.: -2.1 ft
 DATE W.L.: 4/22/14
 TIME W.L.: ~12PM

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT		
40	-25	35.0 - 42.0 (SP) SAND, medium to fine, trace gravel, fine, rounded, light gray, non-cohesive, slight odor, wet, compact. <i>(Continued)</i>	SP	[Graphic: Dotted pattern]	-25.4	6.7				 <p style="text-align: center;">GAL-35</p>	<p>GAL-35 Borehole Diameter: 8 inch</p> <p>WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs</p> <p>FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs</p> <p>ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons</p>
		42.0 - 49.0 (SW) SAND, coarse to fine, well graded, some gravel coarse to fine, rounded to subrounded, gray brown, non-cohesive, slight odor, wet, compact.	SW	[Graphic: Cross-hatched pattern]	42.0	14.6	8	MACRO CORE	5.0 / 5.0		
45	-30				-32.4	6.2					
		49.0 - 49.5 (SM) silty SAND, fine, trace mica, gray brown, non-cohesive, no odor, wet, compact.	SM	[Graphic: Stippled pattern]	-32.9	1.7					
		49.5 - 50.0 (SP) SAND, medium to fine, gray brown, non-cohesive, no odor, wet, compact.	SP	[Graphic: Dotted pattern]	-33.4	12.6					
50	-35	Boring completed at 50.0 ft				13.0	9	MACRO CORE	4.3 / 5.0		
						5.0					

AA BOREHOLE RECORD PHOENIX GPJ_GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-36

SHEET 1 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 45.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/9/14
 DATE COMPLETED: 4/16/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,353.1 E: 735,609.3
 GS ELEVATION: 16.7 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 16.1 ft
 ELEVATION W.L.: 0.2 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 9:00 am

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT			
0	0.0	0.0 - 0.5 Concrete (Soft Dig-0-5ft bgs)			16.2	0.0				Flush Mount Protective Assembly	GAL-36	0
15	0.5	0.5 - 5.0 FILL-silty SAND, medium to fine, some gravel, fine, angular, brown, trace orange, brick fragments and angular concrete, no odor, slightly moist, loose.	SM		0.5	4.7	NA					
5	5.0	5.0 - 9.0 FILL-brick fragments, orange, some silty fine sand and gravel, non-cohesive, slight odor, slightly moist, loose.	SM		11.7	3.0				Filter Pack Seal 5-6ft bgs (#00 SAND)	3.2 5.0	5
10	5.0				5.0	4.0	1	MACRO CORE				
10	9.0	9.0 - 12.5 FILL-silty fine SAND and GRAVEL, some rock fragments, angular, non-cohesive, slight odor, slightly moist, loose.	SM-GM		7.7	2.3						10
5	9.0				9.0	4.4						
15	12.5	12.5 - 14.5 (SP) SAND, medium to fine, trace gravel, fine rounded, gray brown, non-cohesive, slight odor, wet, compact.	SP		4.2	11.5					4.7 5.0	15
15	12.5				12.5	10.7						
15	14.5	14.5 - 20.0 (SP) SAND, medium to fine, trace gravel, fine, rounded, dark gray brown, non-cohesive, moderate odor, oil saturated, compact.	SP		2.2	14.5				Filter Pack 6-28ft bgs (#-2 SAND) Screened 8-28ft bgs (0.020 slot)	4.7 5.0	15
0	14.5				14.5	12.5	3	MACRO CORE				
20	20.0	20.0 - 23.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded, gray brown, non-cohesive, slight odor, wet, compact.	SW		-3.4	11.4					4.8 5.0	20
-5	20.0				20.0	10.6						
25	23.0	23.0 - 25.0 (SP) SAND, medium to fine, trace gravel, fine, rounded, dark gray brown, non-cohesive slight odor, wet, compact.	SP		-6.4	8.1						25
25	23.0				23.0	7.2						
25	25.0	25.0 - 30.0 (SP) SAND, medium to fine, trace gravel, fine, rounded, to subrounded, gray brown, non-cohesive, slight odor, wet, compact.	SP		-8.4	5.1					4.9 5.0	25
-10	25.0				25.0	14.7						
30	30.0	30.0 - 33.5 (SP) SAND, medium to fine, trace gravel, fine, rounded, to subrounded, gray brown, non-cohesive, moderate odor, wet, compact.	SP		-13.4	22.6					5.0 5.0	30
-15	30.0				30.0	21.2						
35	33.5	33.5 - 35.0 (SP) SAND, fine, gray brown, non-cohesive, moderate odor, wet, compact.	SP		-16.9	32.0						35
35	33.5				33.5	28.6						
40	35.0	35.0 - 40.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded, gray brown, non-cohesive, moderate odor, wet, compact.	SW		-18.4	20.7				2 inch, direct push borehole-collapse 28.5-45ft bgs	5.0 5.0	40
-20	35.0				35.0	24.0						
40	40.0				-23.4	30.3						40

AA BOREHOLE RECORD PHOENIX GPJ GOLDBER NJ-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-36



SHEET 2 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 45.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/9/14
 DATE COMPLETED: 4/16/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,353.1 E: 735,609.3
 GS ELEVATION: 16.7 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 16.1 ft
 ELEVATION W.L.: 0.2 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 9:00 am

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/ PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS						
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT								
40	-25	40.0 - 45.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded, gray brown, non-cohesive, slight odor, wet, compact.	SW		40.0	9.8	8	MACRO CORE	5.0 5.0		GAL-36 Borehole Diameter: 8 inch WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons						
					7.5	11.0						12.6					
					-28.4	9.9											
45	-30				Boring completed at 45.0 ft												
50	-35																
55	-40																
60	-45																
65	-50																
70	-55																
75	-60																
80																	

AA BOREHOLE RECORD PHOENIX GPJ GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-37

SHEET 1 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 50.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/9/14
 DATE COMPLETED: 4/21/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,354.1 E: 735,609.9
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.2 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 13.8 ft
 ELEVATION W.L.: 2.4 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 12:40 pm

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE			REC / ATT
0		0.0 - 0.5 Concrete (Soft Dig-0-5ft bgs)			16.1					<p style="text-align: center;">GAL-37</p>	<p>GAL-37 Borehole Diameter: 8 inch</p> <p>WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 6-28.5ft bgs Type: #2 SAND Quantity: 700lbs</p> <p>FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs</p> <p>ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 20 gallons</p>
15		0.5 - 2.0 FILL-silty SAND with gravel, fine to coarse, tan brown, some brick fragments, orange, non-cohesive, slight odor, dry, loose.	SM		0.5		NA		Flush Mount Protective Assembly		
		2.0 - 2.5 FILL-silty SAND, black stained, slight odor, moist, loose.	SM		14.6				Annulus Grout 0-5.0ft bgs		
		2.5 - 5.0 FILL-gravelly SAND with timber and rock fragments, black stained, non-cohesive, slight odor, moist, loose.	SW		14.1						
5		5.0 - 6.0 FILL-rock fragments, slight odor, moist, loose.			2.5	4.5		5.0			
		6.0 - 9.0 FILL-silty SAND, tan brown, slight odor, moist, loose.			11.6				Filter Pack Seal 5-6ft bgs (#00 SAND)		
		9.0 - 10.0 FILL-SAND, fine, some coal fragments and fine gravel, black, non-cohesive, slight odor, wet, loose.	SM		5.0						
		10.0 - 11.0 FILL-silty SAND with brick fragments, some fine gravel, slight odor, wet, loose.	SM		10.6						
		11.0 - 12.5 FILL-silty CLAY, tan with some black staining, cohesive, slight odor, moist, soft.	CL		6.0						
		12.5 - 13.5 FILL-gravelly SAND with fines, some coal fragments, black, non-cohesive, slight odor, wet, loose.	SW		7.6						
		13.5 - 14.7 FILL-SAND, fine, with black staining, slight odor, dry.	SP		9.0						
		14.7 - 19.5 FILL-SAND, fine to coarse with some rock fragments and gravel, fine, intermittent black staining, non-cohesive, moderate odor.	GW		6.6						
		19.5 - 20.0 (SP) SAND, fine, gray brown to black stained, non-cohesive, moderate odor, oil saturated, compact.	SP		10.0						
		20.0 - 25.0 (SW) SAND, coarse to fine, well graded, some gravel, fine to coarse, rounded, gray brown to black stained, non-cohesive, moderate odor, oil saturated, compact.	SW		10.6						
		25.0 - 27.0 (SP) SAND, medium to fine, gray brown to black stained, non-cohesive, moderate odor, wet, compact.	SP		7.7						
		27.0 - 33.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded, non-cohesive, dark gray brown to black stained, moderate odor, wet, compact.	SW		11.8						
		33.0 - 34.7 (SP) SAND, fine to medium, gray brown, non-cohesive, moderate odor, wet, compact.	SP		8.1						
		34.7 - 35.0 (SW) SAND, coarse to fine, well graded, some gravel, fine, rounded to subrounded, dark gray brown, non-cohesive, moderate odor, wet, compact.	SW		11.0						
		35.0 - 39.0 (SP) SAND, fine to medium, gray brown, non-cohesive, moderate odor, wet, compact.	SP		4.1						
		39.0 - 40.0 (SW) SAND, coarse to fine, well graded, some gravel, fine.	SW		12.5						
					12.5	4.4	MACRO CORE	4.4			
					13.5			5.0			
					13.5						
					14.7						
					14.7						
					19.9						
					19.9						
					23.6						
					23.8	2.3	MACRO CORE	2.3			
					23.8			5.0			
					25.0						
					25.0						
					28.0						
					27.0						
					34.1	4.9	MACRO CORE	4.9			
					39.2			5.0			
					41.4						
					35.3						
					21.2						
					16.4	4.8	MACRO CORE	4.8			
					25.6			5.0			
					18.1						
					35.0						
					34.7						
					26.6	5.0	MACRO CORE	5.0			
					34.3			5.0			
					22.4						
					39.0						
					23.4						

AA BOREHOLE RECORD PHOENIX GP J GOLDBER NJ-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



RECORD OF BOREHOLE GAL-37






SHEET 2 of 2

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 50.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Geoprobe/HSA
 DRILL RIG: 7822DT
 DATE STARTED: 4/9/14
 DATE COMPLETED: 4/21/14
 WEATHER: Indoor

DATUM: Local
 COORDS: N: 404,354.1 E: 735,609.9
 GS ELEVATION: 16.6 ft
 TOC ELEVATION: 16.2 ft
 TEMPERATURE: 45-60F

INCLINATION: -90
 DEPTH W.L.: 13.8 ft
 ELEVATION W.L.: 2.4 ft
 DATE W.L.: 4/22/14
 TIME W.L.: 12:40 pm

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT		
40	-25	rounded to subrounded, dark gray brown, non-cohesive, moderate odor, wet, compact.	SP		40.0	11.8				GAL-37	
		40.0 - 43.5 (SP) SAND, fine to medium, gray brown with intermittent black staining, non-cohesive, slight odor, wet, compact.			-26.9	17.2					
45		43.5 - 45.0 (SW) SAND, coarse to fine, well graded, some gravel, coarse to fine, rounded to subrounded, dark gray brown, non-cohesive, slight odor, wet, compact.	SW		43.5	10.2					
	-30	45.0 - 49.0 (SP) SAND, fine to medium, gray brown with intermittent black staining, slight odor, non-cohesive, wet, compact.	SP		-28.4	12.1					
					45.0	1.2	1.4				
50		49.0 - 50.0 (SW) SAND, coarse to fine, well graded, some gravel, coarse to fine, rounded to subrounded, dark gray brown, non-cohesive, slight odor, wet, compact.	SW		-32.4	0.3	5.0	MACRO CORE	5.0 / 5.0		
	-35	Boring completed at 50.0 ft									

AA BOREHOLE RECORD PHOENIX GPJ_GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 9/22/14



EXISTING WELLS

RECORD OF BOREHOLE GAL-14

SHEET 1 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 35.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/27/04
 DATE COMPLETED: 6/27/04
 WEATHER: Sun/Lt. Breeze

DATUM: Local
 COORDS: N: 205,800.4 E: 1,001,812.5
 GS ELEVATION: 16.3 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 75-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS						
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected			Analyses	Peak PID Reading per SS (ppm)				
0		0.0 - 5.0 Fill material, sand, cobbles, concrete, brick fragments, timber		FILL															
5		5.0 - 9.0 Moist, red brown to Dark grayish brown MF SAND, little fine rounded GRAVEL, trace cobble		SP	11.3 5.0	SS	5 5 5 9	1.5 2.0	1.3 1.9 0.9	GAL140106 6/27/2004									
10		9.0 - 11.0 Black streak stained Dark grayish brown compact CF SAND, little fine rounded gravel (slight HC odor)		SP	7.3 9.0	SS	4 9 13 25	0.6 2.0	0.7 3.6										
15		11.0 - 19.0 Oil wet, Dark grayish brown compact-dense CF SAND, trace to little fine rounded gravel (Moderate to strong HC odor)		SP	5.3 11.0	SS	3 8 15 13	1.0 2.0	33 36	GAL140311 6/27/2004									
20		19.0 - 23.0 Oil wet, Grayish brown well graded compact CF SAND, little rounded fine GRAVEL (moderate HC odor)		SP		SS	5 11 13 14	1.5 2.0	32 49 30	GAL140413 6/27/2004									
				SW		SS	9 14 16 13	1.4 2.0	39 42	GAL140515 6/27/2004									
				SW		SS	5 7 11 15	2.0 2.0	55 60 45	GAL140617 6/27/2004									
				SW		SS	4 11 13 15	1.5 2.0	34 62 25	GAL140718 6/27/2004									
		19.0 - 23.0 Oil wet, Grayish brown well graded compact CF SAND, little rounded fine GRAVEL (moderate HC odor)		SW	-2.7 19.0	SS	4 11 13 15	1.5 2.0	34 62 25	GAL140820 6/27/2004									

Cement Grout - 0-6'

#00 Sand Filter - Seal 6-8'

#2 Sand Filter - Pack 7-30'

0.020" Slot

WELL CASING
Interval: 0-10 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Joint Type: Threaded

WELL SCREEN
Interval: 10-30 ft bgs
Material: Sch 40 PVC
Diameter: 4 inch
Slot Size: 0.020
End Cap: Threaded

FILTER PACK
Interval: 7-30 ft bgs
Type: #2 Sand
Quantity:

FILTER PACK SEAL
Interval: 6-8 ft bgs
Type: #00 Sand
Quantity: 1x50 lb

ANNULUS SEAL
Interval: 0-6 ft bgs
Type: Cement Grout
Quantity:

BOREHOLE DIAMETER:
10.5"

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



RECORD OF BOREHOLE GAL-14

SHEET 2 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 35.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/27/04
 DATE COMPLETED: 6/27/04
 WEATHER: Sun/Lt. Breeze

DATUM: Local
 COORDS: N: 205,800.4 E: 1,001,812.5
 GS ELEVATION: 16.3 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 75-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES								MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected	Analyses			Peak PID Reading per SS (ppm)	
20	-5	19.0 - 23.0 Oil wet, Grayish brown well graded compact CF SAND, little rounded fine GRAVEL (moderate HC odor) <i>(Continued)</i>	SW		-6.7	SS	4 11 13 15	1.5 2.0	34 62 25	N/A N/A N/A			-	-		
	SS					7 9 14 27	0.5 2.0									
	SS					4 8 23 25	2.0 2.0	60 60 70	GAL140925 6/27/2004							
	SS					8 9 11 22	1.6 2.0	85 75	GAL141026 6/27/2004							
	SS					16 28 30 25	1.0 2.0	45 90	GAL141129 6/27/2004							
	SS					4 8 14 30	2.0 2.0	100 80 190	GAL141231 6/27/2004							
25	-10	23.0 - 29.0 Water saturated, grayish brown poorly sorted CF SAND and CF GRAVEL, trace cobbles	SP		-12.7	SS	13 21 18 21	2.0 2.0	110 130							
	SS					16 28 30 25	1.0 2.0	45 90	GAL141129 6/27/2004							
	SS					4 8 14 30	2.0 2.0	100 80 190	GAL141231 6/27/2004							
30	-15	29.0 - 33.0 Water Saturated Dark Grayish brown well-graded compact CF SAND, some sub/rounded GRAVEL	SW		-16.7	SS	13 21 18 21	2.0 2.0	110 130							
	SS					4 8 14 30	2.0 2.0	100 80 190	GAL141231 6/27/2004							
35	-20	Boring completed at 35.0 ft														

WELL CASING
 Interval: 0-10 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Joint Type: Threaded

WELL SCREEN
 Interval: 10-30 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Slot Size: 0.020
 End Cap: Threaded

FILTER PACK
 Interval: 7-30 ft bgs
 Type: #2 Sand
 Quantity:

FILTER PACK SEAL
 Interval: 6-8 ft bgs
 Type: #00 Sand
 Quantity: 1x50 lb

ANNULUS SEAL
 Interval: 0-6 ft bgs
 Type: Cement Grout
 Quantity:

BOREHOLE DIAMETER:
 10.5"

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



RECORD OF BOREHOLE GAL-15

SHEET 1 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 33.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/26/04
 DATE COMPLETED: 6/26/04
 WEATHER: M. Cloudy/Calm

DATUM: Local
 COORDS: N: 205,949.1 E: 1,001,983.7
 GS ELEVATION: 21.8 ft
 TOC ELEVATION: 22.0 ft
 TEMPERATURE: 70-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS					
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected			Analyses	Peak PID Reading per SS (ppm)			
0		0.0 - 5.0 Fill material, sand, gravel, cobbles, concrete, brick fragments, timber		FILL														
5		5.0 - 13.0 Oil wet to black stained compact silty MF SAND, trace clay (moderate to strong HC odor)		SM	16.8 5.0	SS	1 7 12 10	0.0 2.0	N/A N/A N/A									
10						SS	3 4 9 13	1.8 2.0	595 36 45		GAL150107 6/26/2004							
10						SS	12/50/0.5	1.0 2.0	80 220 589									
10						SS	15 23 24 49	1.3 2.0	850 8,000		GAL150211 6/26/2004							
10						SS	32 38 50/0.5	2.0 2.0	235 133 12		GAL150313 6/26/2004							
15		13.0 - 17.0 Oil stained compact to dense MF SAND, trace silt and fine rounded gravel (moderate HC odor)		SWG	8.8 13.0	SS	14 19 22 27	1.7 2.0	206 965 1,300		GAL150414 6/26/2004							
15						SS	15 26 50/0.3	2.0 2.0	75 29 160		GAL150517 6/26/2004							
20		17.0 - 25.0 Intermittent black stained, olive brown soft to firm VF SAND and SILT, varve like features (Strong HC odor)		SP-SM	4.8 17.0	SS	16 17 26 26	2.0 2.0	3.8 25 74		GAL150619 6/26/2004							

Cement Grout - 0-8'

#00 Sand Filter Seal 6-8'

#2 Sand Filter Pack

WELL CASING
 Interval: 0-13 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Joint Type: Threaded

WELL SCREEN
 Interval: 13-28 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Slot Size: 0.020
 End Cap: Threaded

FILTER PACK
 Interval: 10-31 ft bgs
 Type: #2 Sand
 Quantity: 9x50 lb

FILTER PACK SEAL
 Interval: 8-10 ft bgs
 Type: #00 Sand
 Quantity: 1x50 lb

ANNULUS SEAL
 Interval: 0-8 ft bgs
 Type: Cement Grout
 Quantity:

BOREHOLE DIAMETER:
 10.5"

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



RECORD OF BOREHOLE GAL-15

SHEET 2 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 33.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/26/04
 DATE COMPLETED: 6/26/04
 WEATHER: M. Cloudy/Calm

DATUM: Local
 COORDS: N: 205,949.1 E: 1,001,983.7
 GS ELEVATION: 21.8 ft
 TOC ELEVATION: 22.0 ft
 TEMPERATURE: 70-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected	Analyses			Peak PID Reading per SS (ppm)
20		17.0 - 25.0 Intermittent black stained, olive brown soft to firm VF SAND and SILT, varve like features (Strong HC odor) (Continued)	SP-SM			SS 16 17 26 26	2.0 2.0	3.8 25 74		GAL150721 6/26/2004				0.020" Slot Screen 13-28'	<p>WELL CASING Interval: 0-13 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 13-28 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 10-31 ft bgs Type: #2 Sand Quantity: 9x50 lb</p> <p>FILTER PACK SEAL Interval: 8-10 ft bgs Type: #00 Sand Quantity: 1x50 lb</p> <p>ANNULUS SEAL Interval: 0-8 ft bgs Type: Cement Grout Quantity:</p> <p>BOREHOLE DIAMETER: 10.5"</p>
0					SS 5 3 10	0.5 2.0	N/A N/A N/A								
25		25.0 - 31.0 Olive yellow soft silty Clay (slight to moderate odor)	ML			SS 3 4 6	1.8 2.0	230 34 64		GAL150827 6/26/2004					
-5					SS 5 6 14	0.1 2.0	75 50 29		GAL150928 6/26/2004						
30					SS	50/0.3	1.0 2.0	N/A N/A N/A							
-10		31.0 - 33.0 Olive brown to red brown soft silty MF SAND (slight HC odor)	ML			SS 5 7 10	0.0 2.0	N/A N/A N/A							
35		Boring completed at 33.0 ft													

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



RECORD OF BOREHOLE GAL-17

SHEET 1 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 31.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/26/04
 DATE COMPLETED: 6/26/04
 WEATHER: M. Cloudy/Calm

DATUM: Local
 COORDS: N: 205,897.6 E: 1,001,933.6
 GS ELEVATION: 16.3 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 70-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected			Analyses
0		0.0 - 7.0 Fill material, sand, gravel, cobbles, brick fragments (seen observed in borehole during "Soft Dig")	FILL									100		<p>WELL CASING Interval: 0-12 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 12-27 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 9-29 ft bgs Type: #2 Sand Quantity:</p> <p>FILTER PACK SEAL Interval: 7-9 ft bgs Type: #00 Sand Quantity: 1x50 lb</p> <p>ANNULUS SEAL Interval: 0-7 ft bgs Type: Cement Grout Quantity:</p> <p>BOREHOLE DIAMETER: 10.5"</p>
15												>200		
5												100		
10												100		
9.3												100		
7.0		7.0 - 11.0 Dark Gray firm silt and rock and brick fragments	FILL									100		
10												100		
15												100		
5												100		
11.0		11.0 - 17.0 Dry, dark reddish brown dense coarse SAND and C GRAVEL (slight HC odor)	SP									100		
15												100		
10												100		
5												100		
17.0		17.0 - 21.0 Oil wet, dark gray brown loose to dense CF SAND, little rounded MF gravel (slight HC odor)	SP									100		
20												100		

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

Log continued on next page

RECORD OF BOREHOLE GAL-17

SHEET 2 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 31.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage Property

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 6/26/04
 DATE COMPLETED: 6/26/04
 WEATHER: M. Cloudy/Calm

DATUM: Local
 COORDS: N: 205,897.6 E: 1,001,933.6
 GS ELEVATION: 16.3 ft
 TOC ELEVATION: 16.3 ft
 TEMPERATURE: 70-80 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID	Date/Time Collected			Analyses
20		17.0 - 21.0 Oil wet, dark gray brown loose to dense CF SAND, little rounded MF gravel (slight HC odor) (Continued)	SP	[Graphic Log: Dotted pattern]	-4.7	SS	8 16 15 16	2.0 2.0	4.3 12.5 10.1		GAL170621	6/26/2004		100 >200	<p>WELL CASING Interval: 0-12 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 12-27 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 9-29 ft bgs Type: #2 Sand Quantity:</p> <p>FILTER PACK SEAL Interval: 7-9 ft bgs Type: #00 Sand Quantity: 1x50 lb</p> <p>ANNULUS SEAL Interval: 0-7 ft bgs Type: Cement Grout Quantity:</p> <p>BOREHOLE DIAMETER: 10.5"</p>
-5		21.0 - 25.0 Oil wet, dark gray brown dense CF SAND, trace fine gravel (slight HC odor)	SP	[Graphic Log: Dotted pattern]	21.0	SS	13 14 19 32	2.0 2.0	5.7 20.7 20.9		GAL170723	6/26/2004			
			SS		-8.7	SS	4 8 10 15	2.0 2.0	63 33 20						
25		25.0 - 27.0 Water saturated, dark gray brown compact silty MF SAND, little rounded fine gravel (slight HC odor)	SM	[Graphic Log: Vertical lines]	25.0	SS	4 8 12 15	2.0 2.0	22 19.1 7.6		GAL170926	6/26/2004			
-10			SS		-10.7	SS	6 8 12 15	2.0 2.0	9.0 20 48		GAL171029	6/26/2004			
			SP	[Graphic Log: Dotted pattern]	27.0	SS	7 9 11 14	2.0 2.0	20 20 22		GAL171131	6/26/2004			
30		27.0 - 31.0 Water saturated, dark gray brown compact CM SAND, little MF rounded gravel (slight HC odor)	SP	[Graphic Log: Dotted pattern]	-10.7	SS	6 8 12 15	2.0 2.0	9.0 20 48		GAL171029	6/26/2004			
-15			SS		-14.7	SS	7 9 11 14	2.0 2.0	20 20 22		GAL171131	6/26/2004			
		Boring completed at 31.0 ft													

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: TIR/JLH
 CHECKED BY: SDM
 DATE:



RECORD OF BOREHOLE GAL-25

SHEET 1 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 31.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 4/3/05
 DATE COMPLETED: 4/3/05
 WEATHER: Lt Rain

DATUM: Local
 COORDS: N: 205,829.1 E: 1,001,912.8
 GS ELEVATION: 16.4 ft
 TOC ELEVATION: 15.8 ft
 TEMPERATURE: 40-45 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES						MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS			
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval			Laboratory Sample ID Date/Time Collected	Analyses	Peak PID Reading per SS (ppm) 100 >200
0	0.0	0.0 - 5.0 Fill material - sand, gravel, cobbles, concrete, brick fragments, wood.	FILL											<p>Cement grout - 0-3 ft bgs</p> <p>#00 Choker Sand - 3-5 ft bgs</p> <p>#2 Sand Filter Pack - 12-35 ft bgs 0.020 (4 inch PVC) / Slot Screen 7-27 ft bgs</p>	<p>WELL CASING Interval: 0-7 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 7-27 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 5-31 ft bgs Type: #2 Sand Quantity: 8x100 lb</p> <p>FILTER PACK SEAL Interval: 3-5 ft bgs Type: #00 Sand Quantity: 1x50 lb</p> <p>ANNULUS SEAL Interval: 0-3 ft bgs Type: Cement Grout Quantity:</p> <p>BOREHOLE DIAMETER: 10.5"</p>
5	5.0	5.0 - 7.4 Moist, brown, very loose silty fine sand FILL, little brick fragments.	FILL		11.4	SS	10 2 1 1	0.5 2.0	0						
7.4	7.4	7.4 - 9.0 Moist, dark grayish brown, loose fine to very fine sand, FILL trace subangular gravel. Slight to moderate odor.	FILL		9.0	SS	2 1 3 9	0.8 2.0	0						
9.0	9.0	9.0 - 11.0 Moist, dark gray brown, compact fine to very fine SAND, trace coarse to fine gravel, slight hydrocarbon odor.	SP		7.4	SS	9 9 9 7	0.4 2.0	11.1						
11.0	11.0	11.0 - 13.0 No Recovery.			5.4	SS	7 7 9 9	0.0 2.0							
13.0	13.0	13.0 - 15.0 Very moist to wet, dark grayish brown (oil stained), compact fine SAND, trace coarse gravel, moderate hydrocarbon odor.	SP		3.4	SS	5 5 5 6	1.0 2.0	14.4 15.1						
15.0	15.0	15.0 - 17.0 Very moist to wet, dark grayish brown (oil stained) loose fine to medium SAND, trace coarse subangular gravel, moderate hydrocarbon odor.	SP		1.4	SS	2 4 4 5	1.0 2.0	17 20						
17.0	17.0	17.0 - 19.0 Wet, dark grayish brown (oil stained) compact fine to very fine SAND, trace fine rounded gravel, moderate hydrocarbon odor.	SP		-0.6	SS	4 7 14 15	1.4 2.0	17 16						
19.0	19.0		SW		-2.6	SS	9 7 10 10	2.0 2.0	16 17 22						

Log continued on next page

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA-GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: JLH
 CHECKED BY: SDM
 DATE: 6/8/05



RECORD OF BOREHOLE GAL-25

SHEET 2 of 2

PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 31.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 4/3/05
 DATE COMPLETED: 4/3/05
 WEATHER: Lt Rain

DATUM: Local
 COORDS: N: 205,829.1 E: 1,001,912.8
 GS ELEVATION: 16.4 ft
 TOC ELEVATION: 15.8 ft
 TEMPERATURE: 40-45 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES						MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval			Laboratory Sample ID Date/Time Collected	Analyses
20		19.0 - 21.5 Wet, dark grayish brown (oil stained), compact well graded, coarse to fine SAND, trace fine rounded gravel, moderate hydrocarbon odor. <i>(Continued)</i>	SW	[Graphic Log: Oil Stained Sand]	-5.1	SS	9 7 10 10	2.0 2.0	16 17 22			●	100 >200	<p>WELL CASING Interval: 0-7 ft bgs Material: Sch 40 PVC Diameter: 4 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 7-27 ft bgs Material: Sch 40 PVC Diameter: 4 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 5-31 ft bgs Type: #2 Sand Quantity: 8x100 lb</p> <p>FILTER PACK SEAL Interval: 3-5 ft bgs Type: #00 Sand Quantity: 1x50 lb</p> <p>ANNULUS SEAL Interval: 0-3 ft bgs Type: Cement Grout Quantity:</p> <p>BOREHOLE DIAMETER: 10.5"</p>
-5		21.5 - 23.0 Fine to very fine SAND, slight hydrocarbon odor.	SP	[Graphic Log: Fine Sand]	21.5	SS	4 3 1 9	2.0 2.0	9 10 12			●		
25		23.0 - 27.0 Wet, light grayish brown, compact medium to fine SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Graphic Log: Wet Sand]	-6.6 23.0	SS	8 8 8 10	2.0 2.0	7 10 21			●		
-10		27.0 - 31.0 Wet, dark grayish brown, compact fine to medium SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Graphic Log: Wet Sand]	-10.6 27.0	SS	6 7 7 10	1.0 2.0	11.4 19.9			●		
30		31.0: End of Boring. Boring completed at 31.0 ft			-14.6 27.0	SS	5 6 12 12	2.0 2.0	4.1 7.2 12			●		
-15					-14.6	SS	7 10 10 9	12.0 2.0	14.2			●		

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Andre Boutoille

GA INSPECTOR: JLH
 CHECKED BY: SDM
 DATE: 6/8/05



RECORD OF BOREHOLE GAL-26

SHEET 1 of 2

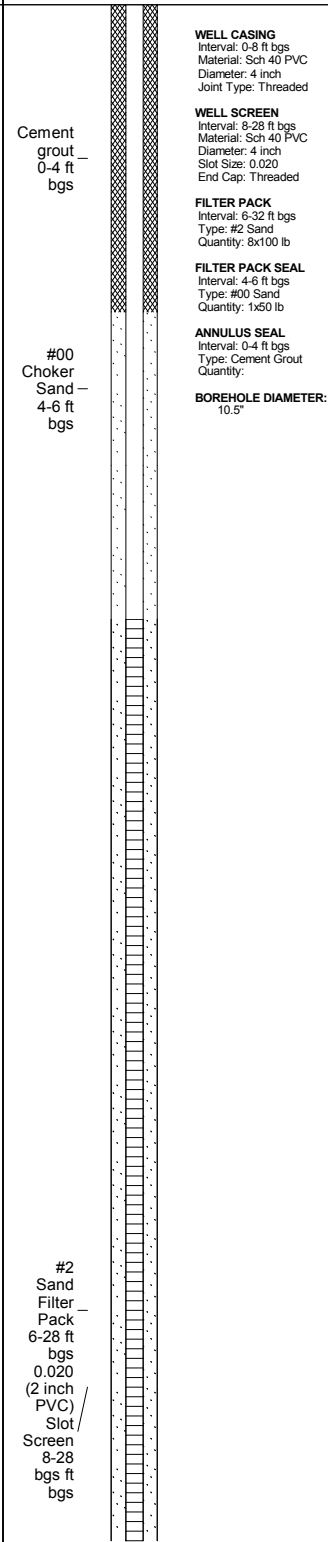
PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 32.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 4/3/05
 DATE COMPLETED: 4/3/05
 WEATHER: Lt Rain

DATUM: Local
 COORDS: N: 205,764.7 E: 1,001,837.1
 GS ELEVATION: 15.8 ft
 TOC ELEVATION: 15.6 ft
 TEMPERATURE: 40-45 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			SAMPLES							MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS						
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID Date/Time Collected			Analyses	Peak PID Reading per SS (ppm)				
0	0	0.0 - 5.0 Fill material - sand, gravel, cobbles, concrete, brick fragments, wood.	FILL	[Cross-hatched pattern]															
		5.0 - 7.0 No Sample Taken.			10.8														
		7.0 - 9.0 Very moist, dark brown to black, loose SILTY medium SAND, slight hydrocarbon odor	SM	[Dotted pattern]	5.0	SS	4 3 4 7	0.2 2.0	4.6										
		9.0 - 10.0 Very moist, dark grayish brown, oil stained, loose fine to very fine SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Dotted pattern]	8.8														
		10.0 - 12.0 Very moist to wet, dark grayish to black, oil stained, loose fine SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Dotted pattern]	7.0	SS	5 4 4 4	0.5 2.0	16.6										
		12.0 - 14.0 Wet, dark grayish black, oil stained, compact medium SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Dotted pattern]	6.8														
		14.0 - 18.0 Wet, dark brown to dark gray, compact fine to medium SAND, trace fine rounded gravel, slight hydrocarbon odor.	SW	[Dotted pattern]	9.0	SS	6 10 15 17	0.5 2.0	9.0										
		18.0 - 20.0 No Recovery.			10.0														
					5.8	SS	4 4	0.9 2.0	0.8										
					10.0	SS	5 4 4 4	0.5 2.0	16.6										
					12.0	SS	6 10 15 17	0.5 2.0	9.0										
					14.0	SS	5 8 13 13	1.0 2.0	19.4 20										
					14.0	SS	50	0.5 2.0	14										
					18.0	SS		2.0											
					4.2														



QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Mike Gram

GA INSPECTOR: Yon W.
 CHECKED BY: SDM
 DATE: 6/8/05



RECORD OF BOREHOLE GAL-26

SHEET 2 of 2

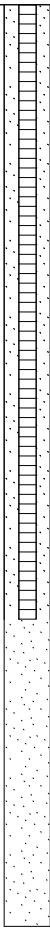
PROJECT: Quanta Resources Site
 PROJECT NUMBER: 023-6134
 DRILLED DEPTH: 32.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Beverage

DRILL METHOD: Hollow-stem auger
 DRILL RIG: Mobile B-58
 DATE STARTED: 4/3/05
 DATE COMPLETED: 4/3/05
 WEATHER: Lt Rain

DATUM: Local
 COORDS: N: 205,764.7 E: 1,001,837.1
 GS ELEVATION: 15.8 ft
 TOC ELEVATION: 15.6 ft
 TEMPERATURE: 40-45 F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES						MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS		
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV.	TYPE	BLOWS per 6 in	REC / ATT	PID per 6" (ppm)	Sample Interval	Laboratory Sample ID			Analyses	Peak PID Reading per SS (ppm)
					DEPTH (ft)										
20	-5	20.0 - 22.0 Wet, dark brown to dark grayish brown, compact fine to medium SAND, trace fine rounded gravel, slight hydrocarbon odor.	SP	[Graphic: Fine sand with small dots]	20.0	SS	7 16 16 21	0.5 2.0	12.3			●	100		
		22.0 - 24.0 Wet, dark bray brown, dense, medium to coarse SAND, slight hydrocarbon odor.	SP	[Graphic: Medium sand with small dots]	-6.2 22.0	SS	21 21 21	1.8 2.0	17 22.5 18			●	100		
		24.0 - 26.0 Wet, dark brown, very dense, medium to coarse SAND, slight hydrocarbon odor.	SW	[Graphic: Coarse sand with larger dots]	-8.2 24.0	SS	9 15 18 20	1.0 2.0	34.3 30			●	100		
25	-10	26.0 - 30.0 Wet, dark brown, very dense, medium to coarse SAND, slight hydrocarbon odor.	SW	[Graphic: Very dense sand with many dots]	-10.2 26.0	SS	22 28 32 42	1.6 2.0	36.2 33			●	100		
		30.0 - 32.0 Wet, dark brown, very dense, medium to coarse SAND, trace fine rounded gravel, slight odor.	SW	[Graphic: Very dense sand with many dots]	-14.2 30.0	SS	22 28 55 28	1.0 2.0	43.4 36			●	100		
30	-15	32.0: End of Boring. Boring completed at 32.0 ft			-16.2							●	100		



WELL CASING
 Interval: 0-8 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Joint Type: Threaded

WELL SCREEN
 Interval: 8-28 ft bgs
 Material: Sch 40 PVC
 Diameter: 4 inch
 Slot Size: 0.020
 End Cap: Threaded

FILTER PACK SEAL
 Interval: 6-32 ft bgs
 Type: #2 Sand
 Quantity: 8x100 lb

FILTER PACK SEAL
 Interval: 4-6 ft bgs
 Type: #00 Sand
 Quantity: 1x50 lb

ANNULUS SEAL
 Interval: 0-4 ft bgs
 Type: Cement Grout
 Quantity:

BOREHOLE DIAMETER:
 10.5"

QUANTA SOIL BORING QUANTA-1.GPJ GOLDBER NJ-PA.GDT 8/29/14

LOG SCALE: 1 in = 2.5 ft
 DRILLING COMPANY: Ameridrill
 DRILLER: Mike Gram

GA INSPECTOR: Yon W.
 CHECKED BY: SDM
 DATE: 6/8/05



RECORD OF BOREHOLE GAL-32

SHEET 1 of 1

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 30.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Direct Push
 DRILL RIG: 7822DT
 DATE STARTED: 1/14/13
 DATE COMPLETED: 2/23/13
 WEATHER: Cloudy

DATUM: Local
 COORDS: N: 404,352.9 E: 735,610.9
 GS ELEVATION: 14.1 ft
 TOC ELEVATION: 13.8 ft
 TEMPERATURE: 50-58F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL / PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT		
0		0.0 - 0.5 Concrete			13.6	0.0	NA	CORE		<p style="text-align: center;">GAL-32</p>	<p>GAL-32 Borehole Diameter: 8 inch</p> <p>WELL CASING Interval: 0-5ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 5-25ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 3-30ft bgs Type: #2 SAND Quantity: 750lbs</p> <p>FILTER PACK SEAL Interval: 2.5-3ft bgs Type: #00 SAND Quantity: 25lbs</p> <p>ANNULUS SEAL Interval: 0-2.5-ft bgs Type: Portland cement with 5% bentonite Quantity: 10 gallons</p>
		0.5 - 1.5 Gravel / subbase with oily sludge, FILL material. Slight hydrocarbon odor.			0.5	5.3			0.5		
		1.5 - 5.0 Dry, FILL material, consisting of rock and brick fragments with gravelly SAND and coal ash fines. Strong hydrocarbon odor.			12.6	1.2			0.5		
					1.5	7.5	NA		4.5		
					7.5	9.2			4.5		
					9.1	15.9					
		5.0 - 7.0 Dry, FILL, consisting of black coal ash fines and gravelly sand, trace brick fragments. Strong hydrocarbon odor.			5.0	21.7					
					7.1	88.6	1	MACRO CORE	3.2		
		7.0 - 10.0 Very moist, soft, black to gray, fine sandy SILT. Strong hydrocarbon odor.	ML		7.0	59.7			5.0		
					4.1	26.5					
		10.0 - 13.0 Saturated, black, oil stained, fine sandy SILT. Strong hydrocarbon odor.	ML		10.0	77.5					
					1.1	181	2	MACRO CORE	4.7		
		13.0 - 15.0 Saturated, black, oil stained, silty fine SAND. Strong hydrocarbon odor.	SM		13.0	174			5.0		
					-0.9	107.6					
		15.0 - 17.0 Saturated, gray with black, oil stained, silty fine SAND. Strong hydrocarbon odor.	SM		15.0	122					
					-2.9	63.6					
		17.0 - 20.0 Saturated, brown, medium to fine SAND, trace fine gravel. Strong hydrocarbon odor.	SW		17.0	121	3	MACRO CORE	3.4		
					-5.9	79.6			5.0		
		20.0 - 23.0 Saturated, tan, coarse to fine SAND, trace fine gravel. Strong hydrocarbon odor.	SW		20.0	71.6					
					-8.9	51.6	4	MACRO CORE	3.2		
		23.0 - 24.5 Saturated, gray brown, fine SAND. Moderate hydrocarbon odor.	SP		23.0				5.0		
					-10.4	134.5					
		24.5 - 25.0 Saturated, brown, silty fine SAND. Strong hydrocarbon odor.	SM		-10.9						
		25.0 - 30.0 Saturated, gray brown, oil stained, coarse to fine SAND, little fine rounded to subrounded gravel. Strong hydrocarbon odor.	SW		25.0	48.0					
					46.0		5	MACRO CORE	5.0		
					38.6				5.0		
					44.2						
					-15.9	156.3					
		Boring completed at 30.0 ft									

AA BOREHOLE RECORD PHOENIX GPJ_GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 5/6/13



RECORD OF BOREHOLE GAL-33

SHEET 1 of 1

PROJECT: Phoenix Beverage Property RI
 PROJECT NUMBER: 130-2414-01
 DRILLED DEPTH: 30.0 ft
 AZIMUTH: N/A
 LOCATION: Phoenix Bld indoor

DRILL METHOD: Direct Push
 DRILL RIG: 7822DT
 DATE STARTED: 1/14/13
 DATE COMPLETED: 2/23/13
 WEATHER: Sunny

DATUM: Local
 COORDS: N: 404,352.6 E: 735,612.4
 GS ELEVATION: 16.5 ft
 TOC ELEVATION: 15.7 ft
 TEMPERATURE: 50-58F

INCLINATION: -90
 DEPTH W.L.:
 ELEVATION W.L.:
 DATE W.L.:
 TIME W.L.:

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				SAMPLES				MONITORING WELL/PIEZOMETER DIAGRAM and NOTES	WELL CONSTRUCTION DETAILS	
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	PID (ppm)	NUMBER	TYPE	REC / ATT			
0		0.0 - 0.5 Concrete			16.0	0.0	NA	CORE	0.5		<p style="text-align: center;">GAL-33</p> <p style="font-size: small;">Flush Mount Protective Assembly</p> <p style="font-size: small;">Annulus Grout 0-5.0ft bgs</p> <p style="font-size: small;">Filter Pack Seal 5-6ft bgs (#00 SAND)</p> <p style="font-size: small;">Filter Pack 6-28ft bgs (#2 SAND) Screened 8-28ft bgs (0.020 slot)</p> <p style="font-size: small;">Soft Dig Utility Clearance 0-5 ft bgs</p>	<p>GAL-33 Borehole Diameter: 8 inch</p> <p>WELL CASING Interval: 0-8ft bgs Material: Sch 40 PVC Diameter: 2 inch Joint Type: Threaded</p> <p>WELL SCREEN Interval: 8-28ft bgs Material: Sch 40 PVC Diameter: 2 inch Slot Size: 0.020 End Cap: Threaded</p> <p>FILTER PACK Interval: 6-30ft bgs Type: #2 SAND Quantity: 750lbs</p> <p>FILTER PACK SEAL Interval: 5-6ft bgs Type: #00 SAND Quantity: 50lbs</p> <p>ANNULUS SEAL Interval: 0-5ft bgs Type: Portland cement with 5% bentonite Quantity: 30 gallons</p>
15		0.5 - 3.0 Dry, FILL material, consisting of coarse to fine gravelly SAND with rock fragments, trace brick fragments. Slight odor.			0.5	1.3			0.5			
					13.5	0.6	NA		4.5			
		3.0 - 4.0 Slightly moist, FILL, consisting of coal cash fines with traces of gravel, brick, and rock fragments. Slight odor.			3.0				4.5			
		4.0 - 4.8 Slightly moist, FILL, consisting of coal cash fines with traces of gravel, brick, and rock fragments. Slight odor.			12.5							
5		4.0 - 4.8 Hard, treated timber from 4-4.8ft bgs.			4.0	138						
		4.8 - 5.0 Concrete fragments.			11.7	24.9						
		5.0 - 6.5 Slightly moist, FILL, consisting of coal ash fines, little silty sand. Slight odor.			5.0	7.2						
		6.5 - 10.0 Slightly moist, tan brown, fine sandy SILT. Slight odor.	ML		6.5	4.7						
		10.0 - 12.0 Slightly moist, gray brown, silty fine SAND. Slight odor.	SM		10.0	9.1	1	MACRO CORE	2.0			
		12.0 - 13.5 Moist, black, oil stained, intermittent, fine sandy SILT. Slight hydrocarbon odor.	ML		5.8	7.1			5.0			
		13.5 - 17.0 Saturated, black, oil stained, silty fine SAND. Moderate hydrocarbon odor.	SM		4.5	7.1						
		17.0 - 20.0 Saturated, black stained, medium to fine SAND, little rounded fine gravel. Moderate hydrocarbon odor.	SW		12.0	10.2	2	MACRO CORE	5.0			
		20.0 - 25.0 Saturated, black, coarse to fine SAND, little rounded to subrounded, fine quartz gravel. Moderate hydrocarbon odor.	SW		3.0	10.8			5.0			
25		25.0 - 30.0 No Recovery.			13.5	10.2						
					-0.5	24.7	3	MACRO CORE	3.2			
					17.0	14.6			5.0			
					8.3	8.3						
					-3.5	20.0						
					26.4	23.2	4	MACRO CORE	4.5			
					28.7	28.7			5.0			
					16.1	13.2						
					-8.5	25.0	5	MACRO CORE	0.0			
					NA	NA			5.0			
					-13.5							

AA BOREHOLE RECORD PHOENIX GPJ - GOLDER N.J.-PA 05-24-06.GDT 9/24/14

LOG SCALE: 1 in = 5 ft
 DRILLING COMPANY: AmeriDrill, Inc
 DRILLER: S. Bartos

GA INSPECTOR: JLH
 CHECKED BY: EWD
 DATE: 5/6/13





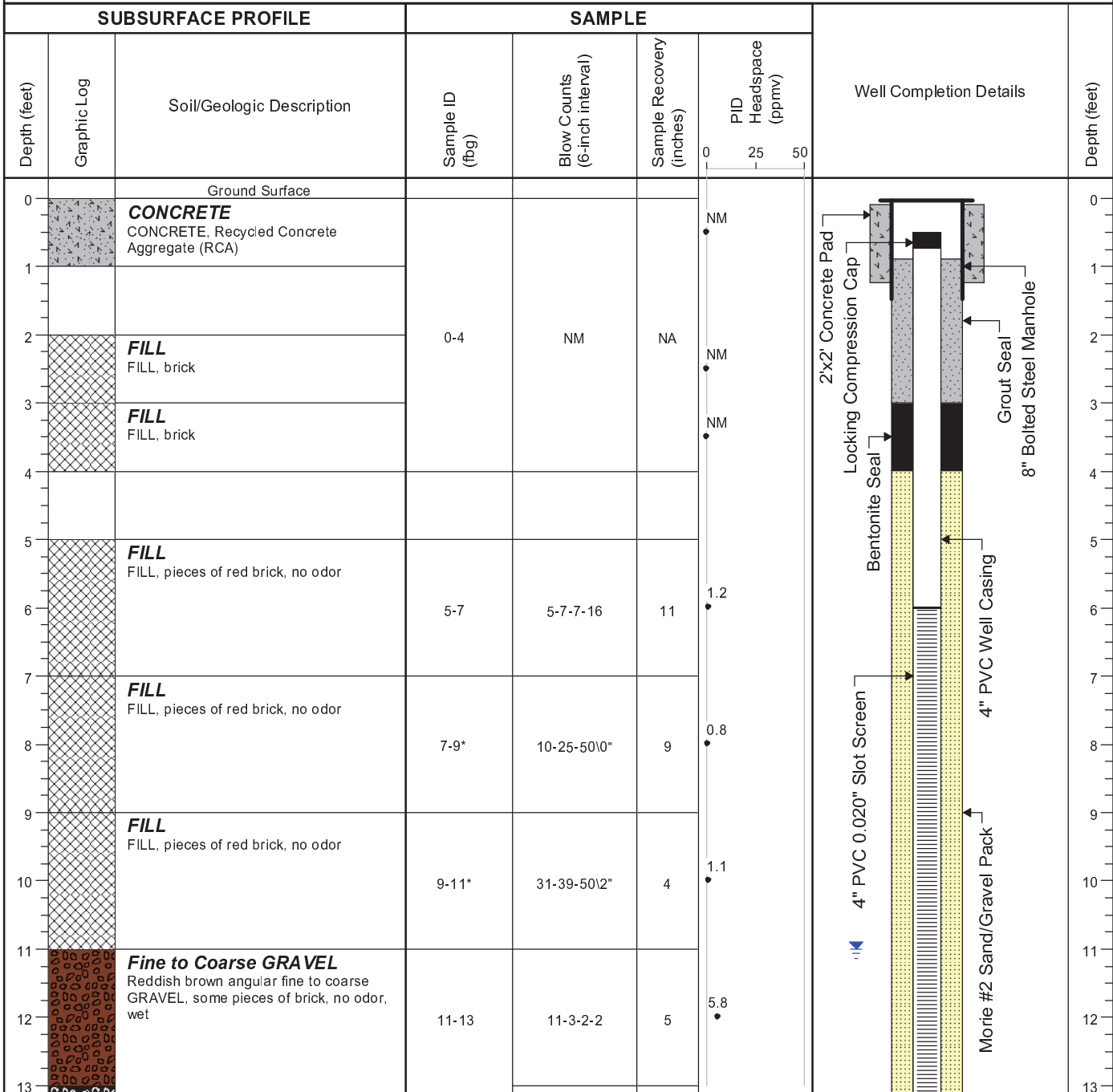
One Corporate Drive, Suite 201
Bohemia, NY 11716
(631) 218-0612

**Soil Boring Log/Monitoring
Well Construction Diagram
Well No. MW-1**

Project Name: Former Pratt Oil Works, Parcel A
Site Location: 38-30 Newtown Creek, Long Island City, New York
Kleinfelder Project No: 102021
Client: ExxonMobil Environmental Services
Start Date: December 29, 2008
End Date: January 6, 2009
Logged By (Geol.): Scott Strom
Checked By: John E. Wolf

Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: Ford F900 B-61 Hydraulic Drill Rig
Drilling Method: 6.625" Hollow Stem Augers
Total Hole Depth: 25 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12 inches
Sampling Method: Hand auger/ Split-spoon

Surface Elevation: 13.78 feet
Initial Water Level: 11 fbg
Notes: Boring precleared to approximately 4 fbg using a Vactron unit.



BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid

NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis



One Corporate Drive, Suite 201
Bohemia, NY 11716
(631) 218-0612

**Soil Boring Log/Monitoring
Well Construction Diagram
Well No. MW-1**

Project Name: Former Pratt Oil Works, Parcel A
Site Location: 38-30 Newtown Creek, Long Island City, New York
Kleinfelder Project No: 102021
Client: ExxonMobil Environmental Services
Start Date: December 29, 2008
End Date: January 6, 2009
Logged By (Geol.): Scott Strom
Checked By: John E. Wolf

Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: Ford F900 B-61 Hydraulic Drill Rig
Drilling Method: 6.625" Hollow Stem Augers
Total Hole Depth: 25 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12 inches
Sampling Method: Hand auger/ Split-spoon

Surface Elevation: 13.78 feet
Initial Water Level: 11 fbg
Notes: Boring precleared to approximately 4 fbg using a Vactron unit.

SUBSURFACE PROFILE			SAMPLE				Well Completion Details	Depth (feet)
Depth (feet)	Graphic Log	Soil/Geologic Description	Sample ID (fbg)	Blow Counts (6-inch interval)	Sample Recovery (inches)	PID Headspace (ppmv)		
14		Fine to Coarse GRAVEL Black fine to coarse GRAVEL and coal ash, wet	13-15	4-4-3-4	14	36.5		
15		SILT Black SILT, some clay, some peat, sheen visible on surface, no odor, wet, but dry inside of sample						
16		SILT Black SILT, some clay, some peat, sheen visible on water surface, no odor, wet, but dry inside of sample	15-17	1-2-1-1	24	3.5		
17		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor						
18		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor	17-19	2-4-4-3	24	5.5		
19		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor						
20		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor	19-21	4-4-5-6	24	1.0		
21		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor						
22		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor	21-23	5-6-5-5	24	0.8		
23		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor						
24		CLAY and Silt Dark grey CLAY and Silt, wet, but dry inside of sample, no odor	23-25	5-7-6-7	24	1.5		
25		PEAT Very dark brown PEAT						
26		End of Borehole						

BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid

NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis



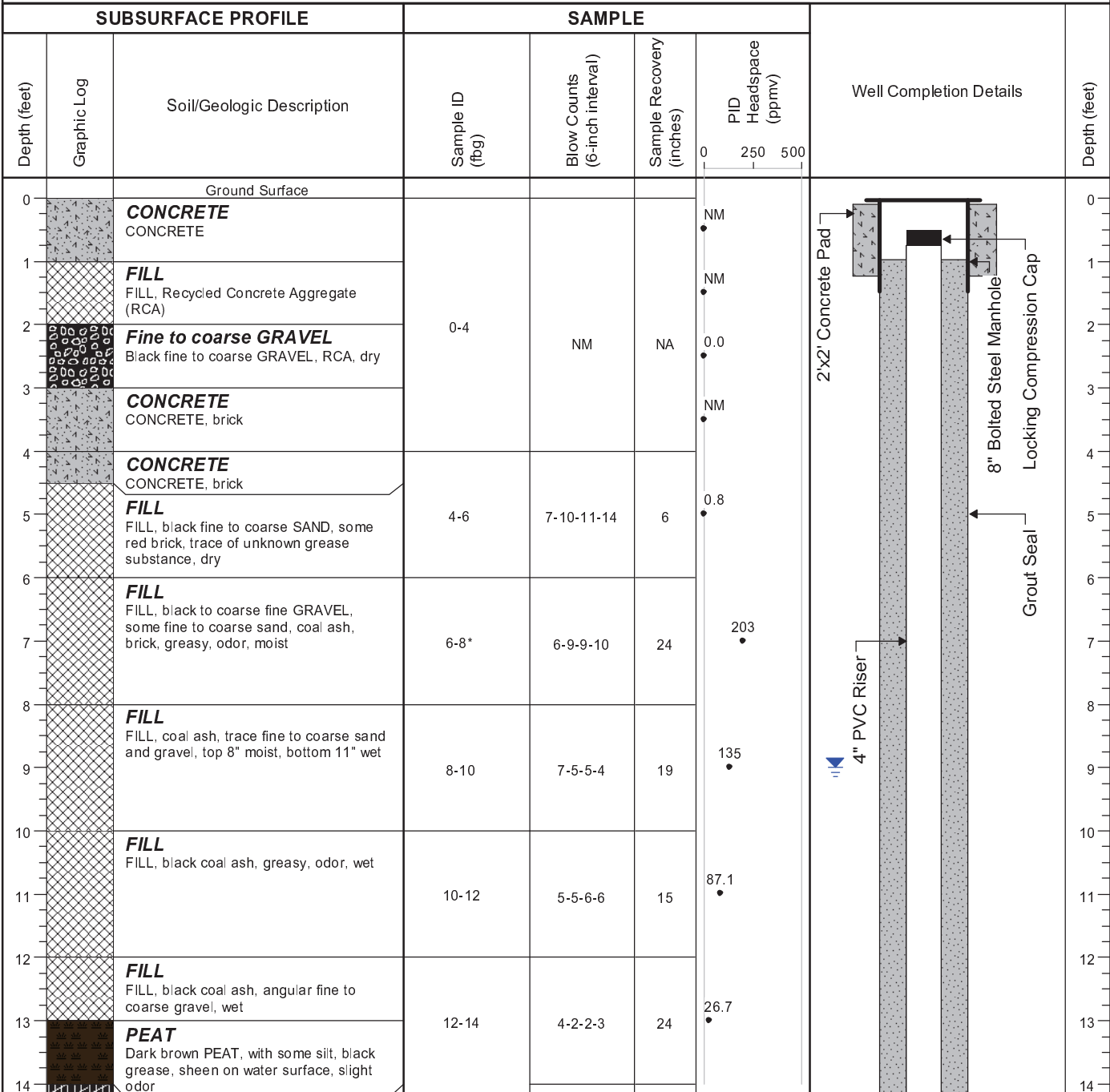
One Corporate Drive, Suite 201
Bohemia, NY 11716
(631) 218-0612

**Soil Boring Log/Monitoring
Well Construction Diagram**
Well No. SB-2/MW-6

Project Name: Former Pratt Oil Works, Parcel A
Site Location: 38-30 Newtown Creek, Long Island City, New York
Kleinfelder Project No: 102021
Client: ExxonMobil Environmental Services
Start Date: December 30, 2008
End Date: January 9, 2009
Logged By (Geol.): Scott Strom
Checked By: John E. Wolf

Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: Ford F900 B-61 Hydraulic Drill Rig
Drilling Method: 6.625" Hollow Stem Auger
Total Hole Depth: 26 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12 inches
Sampling Method: Hand auger/ Split-spoon

Surface Elevation: 12.23 feet
Initial Water Level: 9 fbg
Notes: Boring precleared to approximately 4 fbg using a vactron unit. Monitoring well MW-6 screened beneath the water table under a confining clay layer.



BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid

NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis



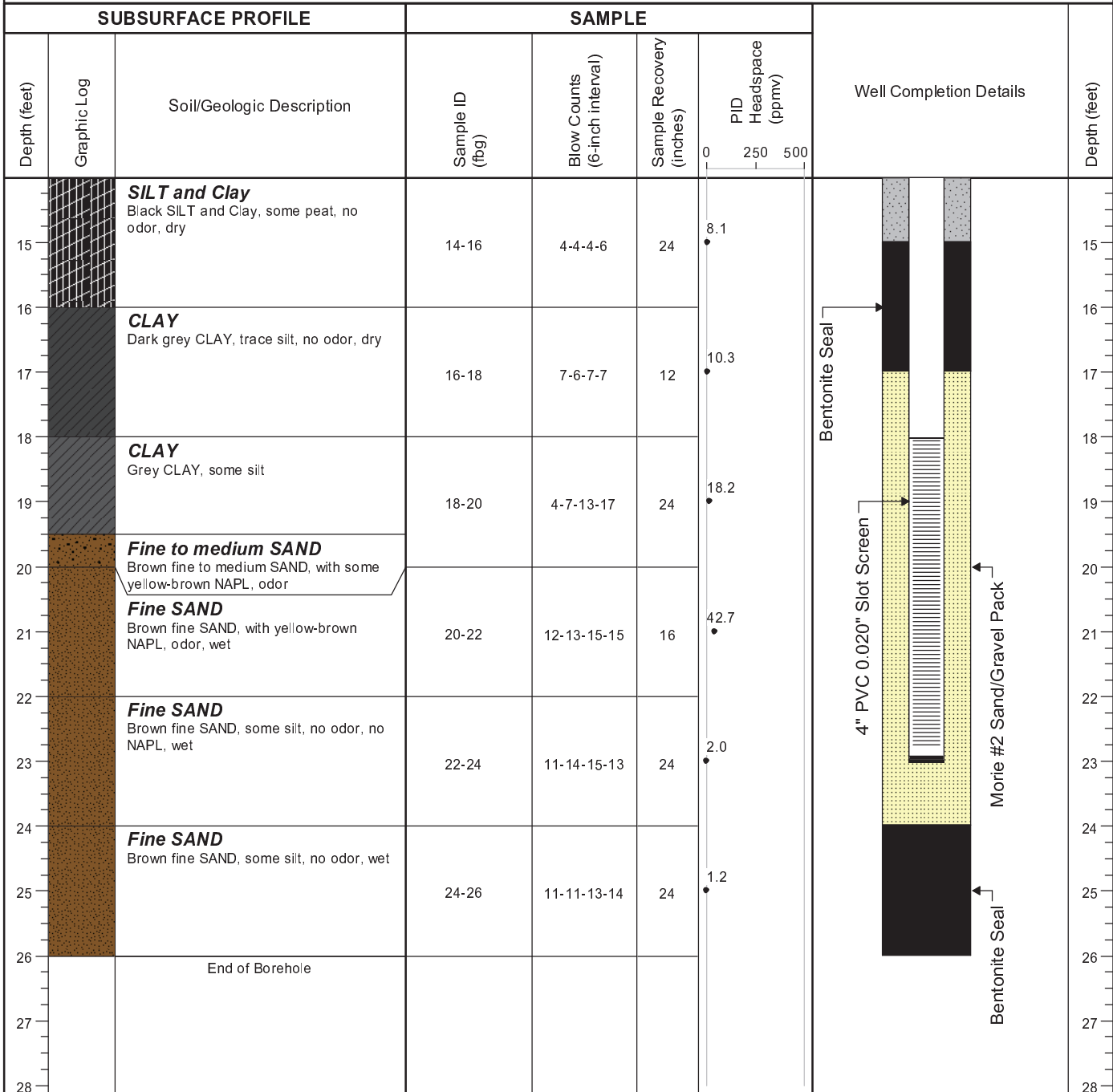
One Corporate Drive, Suite 201
Bohemia, NY 11716
(631) 218-0612

Soil Boring Log/Monitoring
Well Construction Diagram
Well No. SB-2/MW-6

Project Name: Former Pratt Oil Works, Parcel A
Site Location: 38-30 Newtown Creek, Long Island City, New York
Kleinfelder Project No: 102021
Client: ExxonMobil Environmental Services
Start Date: December 30, 2008
End Date: January 9, 2009
Logged By (Geol.): Scott Strom
Checked By: John E. Wolf

Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: Ford F900 B-61 Hydraulic Drill Rig
Drilling Method: 6.625" Hollow Stem Auger
Total Hole Depth: 26 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12 inches
Sampling Method: Hand auger/ Split-spoon

Surface Elevation: 12.23 feet
Initial Water Level: 9 fbg
Notes: Boring precleared to approximately 4 fbg using a vactron unit. Monitoring well MW-6 screened beneath the water table under a confining clay layer.



BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid


NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis

Date Begin - End: 4/23/12 - 4/27/12 **Drill Company:** Aquifer Drilling & Testing **BORING LOG MW-6S**
Logged By: S. Strom **Drill Crew:** _____
Hor.-Vert. Datum: Not Available **Drill Equipment:** Limited Access Sonic Rig
Angle from Vert.: 0 degrees **Exploration Method:** Sonic Continuous
Weather: _____ **Auger Diameter:** 4 inches

Depth (feet)	FIELD EXPLORATION						MONITORING WELL
	Sample Interval / Type	Sample Number	Recovery (in)	Uncorr. blows/6"	PID / FID (ppm)	Graphical Log	Completion Method: Well completed to grade with 2' x 2' concrete well pad and 8" diameter traffic-rated, steel road box
						No Coordinates Available No Elevation Available Surface Condition: Asphalt	
5		MW-6S-5				Air knife - Utility clearance from 0 to 5 feet on 4/23/12	2" dia. Sch 40 PVC casing in concrete
4.7						Artificial Fill	
34.8						GRAVEL (GW): dark brown, dry, some brick and concrete pieces	2" dia. Sch 40 PVC packed in bentonite
						Gray, concrete encountered	
89.0						Artificial Fill	
						COAL (GW): black, dry, mostly coal ash	2" dia. Sch 40 PVC casing packed in #1 sand
95.0						Artificial Fill	
1.9						GRAVEL some sand (GW): black, moist, little coal ash	
						Reddish gray	
0.8						Scattered concrete, brick, and wood	
11.0							
5.2						Artificial Fill	
						SAND some gravel (SW): fine to coarse grained, black, wet, little coal ash	2" dia. 0.03 slotted Sch 40 PVC well screen from 4 to 14 feet packed in #1 sand
21.0							
4.7						Fine to medium grained, gray	
1.1						SILT with peat (OL): gray, moist	
0.5							
20						The boring was terminated at approximately 20 feet below ground surface.	GROUNDWATER LEVEL INFORMATION: Groundwater was observed at approximately 9 ft. below ground surface during drilling. GENERAL NOTES: A 2-inch diameter well was installed to a depth of 14 ft. The exploration was backfilled with sand and pipe on April 27, 2012.
25							
30							

GINT FILE: C:\users\mhearne\desktop\fpow\fpow_logs.gpj R:\KLF_STANDARD_GINT_LIBRARY_BETA_R2.GLB [KLF_ENVIRONMENTAL LOG]

	PROJECT NO. 124102 DRAWN BY: MEH CHECKED BY: SES DATE: REVISED:	BORING LOG MW-6S Former Pratt Oil Works 39-14 Review Avenue Long Island City, New York	PLATE 2 PAGE: 1 of 1
	KI FINFFI DFR - 1757-24 Veterans Memorial Highway Islandia NY 11749-1535 PH: 631 218 0612 FAX: 631 218 0787 www.kleinfelder.com		



TEST BORING REPORT

BORING NO.

MW-8

Page 1 of 1

PROJECT	DMI	H&A FILE NO.	26377-000
LOCATION	Phoenix Beverage, 37-88 Review Avenue, L.I.C., NY	PROJECT MGR.	WWD
CLIENT	DMI	FIELD REP.	EJMI
CONTRACTOR	Summit Drilling Inc.	DATE STARTED	9/12/2000
DRILLER	John Vogt	DATE FINISHED	9/12/2000

Elevation	17.2	ft	Datum	Boring Location	Phoenix Beverage Property, abutting Quanta property.		
Nom	Casing	Sampler	Core Barrel	Rig Make & Model	Hammer Type	Drilling Mud	Casing Advance
Type		S		<input checked="" type="checkbox"/> Truck <input type="checkbox"/> Tripod <input type="checkbox"/> Cat-Head <input type="checkbox"/> Safety <input type="checkbox"/> Bentonite	<input type="checkbox"/> Winch <input checked="" type="checkbox"/> Doughnut <input type="checkbox"/> Polymer	<input type="checkbox"/> Automatic <input checked="" type="checkbox"/> None	Type Method Depth
Inside Diameter (in.)		1 3/8		<input type="checkbox"/> ATV <input type="checkbox"/> Geoprobe <input type="checkbox"/> Rotor Bit <input checked="" type="checkbox"/> Cutting Head			4" HSA to depth
Hammer Weight (lb.)		140		<input type="checkbox"/> Truck <input type="checkbox"/> Ax Track			
Hammer Fall (in.)		30		<input checked="" type="checkbox"/> Skid <input type="checkbox"/>			

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density/consistency, color, GROUP NAME & SYMBOL, maximum particle size, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand		Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	Dilatancy	Toughness	Plasticity	Strength	
0							0-0.5 feet: asphalt. 0.5-4 feet: crushed stone roadbase, brick. FILL										
5	14.16, 12.20	18	4-6		4	SP	Dark brown poorly-graded SAND with gravel.										
	14.21, 28.30	8	6-8			SP	Same as above with some brick fragments.										
	15.20, 15.11	5	8-10			SP	Same as above, slight petroleum odor.										
10	13.13, 14.36	6	10-12		10	SP	Gray poorly-graded SAND, slight odor. PID = 6.4 ppm.										
	15.28, 30.35	10	12-14			SP	Same as above, dark gray, strong petroleum odor. PID = 6.4 ppm.										
15	20.24, 27.20	12	14-16			SP	Same as above, wet, saturated with amber colored oil. PID = 31.1 ppm.										
	16.18, 24.23	12	16-18			SP	Same as above, PID = 38.4 ppm.										
	30.35, 37.32	18	18-20			SP	Same as above, less oily, PID = 27.1 ppm.										
20	6.4, 14.13	18	20-22			SP	Same as above, slight odor, slight sheen. PID = 6.7 ppm.										
	10.15, 18.21	24	22-24			SP	Same as above, no sheen, slight odor, PID = 13.9 ppm.										
25							BOTTOM OF EXPLORATION 24 FT										

Water Level Data			Sample ID			Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth in feet to:			<input type="checkbox"/> Riser Pipe	<input type="checkbox"/> Screen	Overburden (Linear ft.)	
			Bottom of Casing	Bottom of Hole	Water	<input type="checkbox"/> Filter Sand	<input type="checkbox"/> Cuttings	Rock Cored (Linear ft.)	
						<input type="checkbox"/> Grout <td><input type="checkbox"/> Concrete <td colspan="2">Number of Samples</td> </td>	<input type="checkbox"/> Concrete <td colspan="2">Number of Samples</td>	Number of Samples	
						<input type="checkbox"/> Concrete <td><input type="checkbox"/> Bentonite Seal <td colspan="2">BORING NO.</td> </td>	<input type="checkbox"/> Bentonite Seal <td colspan="2">BORING NO.</td>	BORING NO.	

Field Tests Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

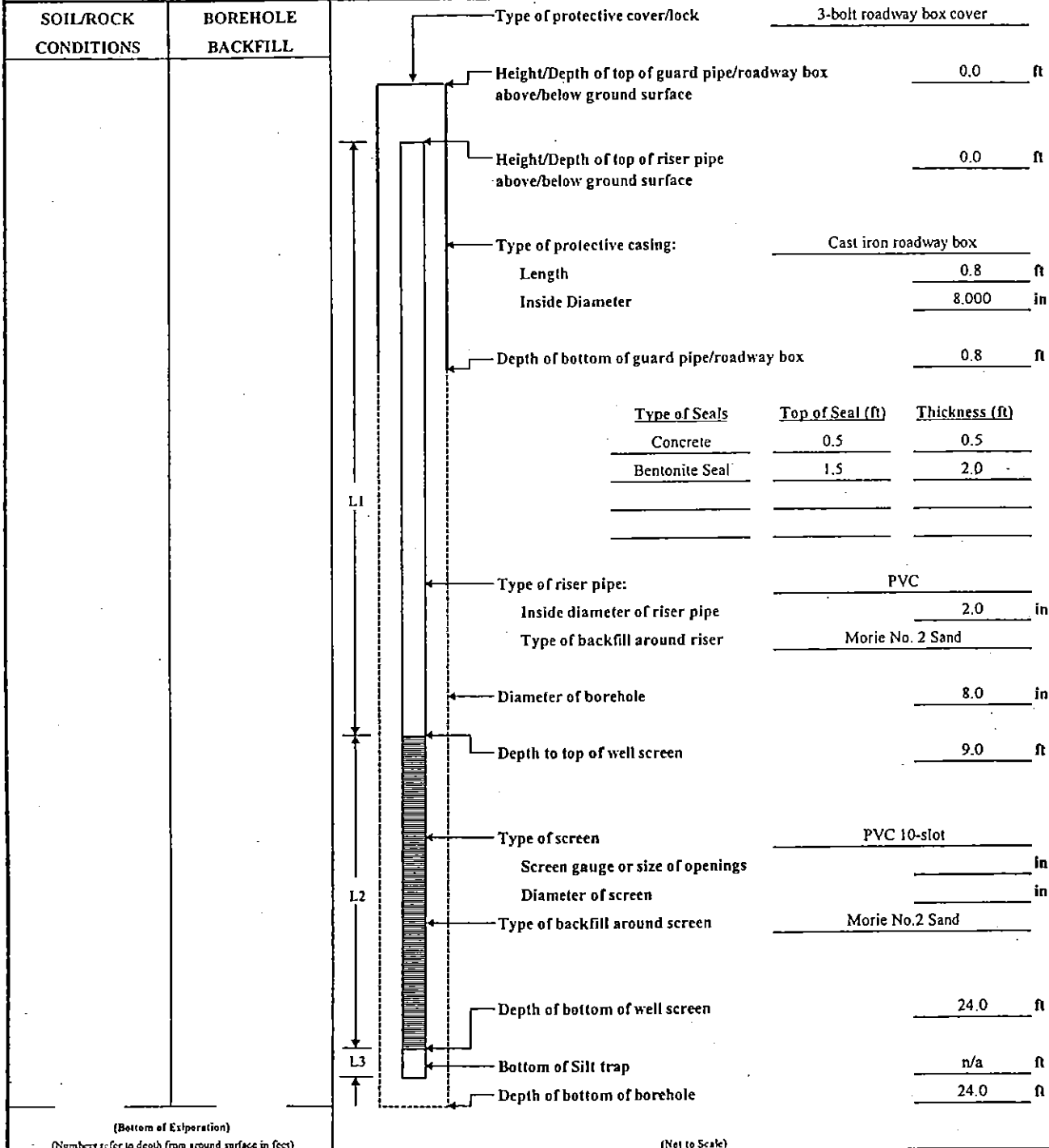
*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.
 NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

OBSERVATION WELL INSTALLATION REPORT

Well No.
MW-8
Boring No.

PROJECT	DMJ	H&A FILE NO.	26377-000
LOCATION	37-88 Reveiv Avenue, LIC, NY	PROJECT MGR.	WWD
CLIENT	DMJ Associates	FIELD REP.	EJMi
CONTRACTOR	Summit Drilling Inc.	DATE INSTALLED	9/13/2000
DRILLER	John Vogt	WATER LEVEL	

Ground El.	17.2	ft	Location	SW corner of Phoenix Beverages property, north of dumpster pad.	<input type="checkbox"/> Guard Pipe
El. Datum	16.92				<input checked="" type="checkbox"/> Roadway Box



(Bottom of Expiration) (Numbers refer to depth from ground surface in feet) (Not to Scale)

9	ft	+	15	ft	+	0	ft	=	24	ft
Riser Pay Length (L1)			Length of screen (L2)			Length of silt trap (L3)			Pay length	

COMMENTS:



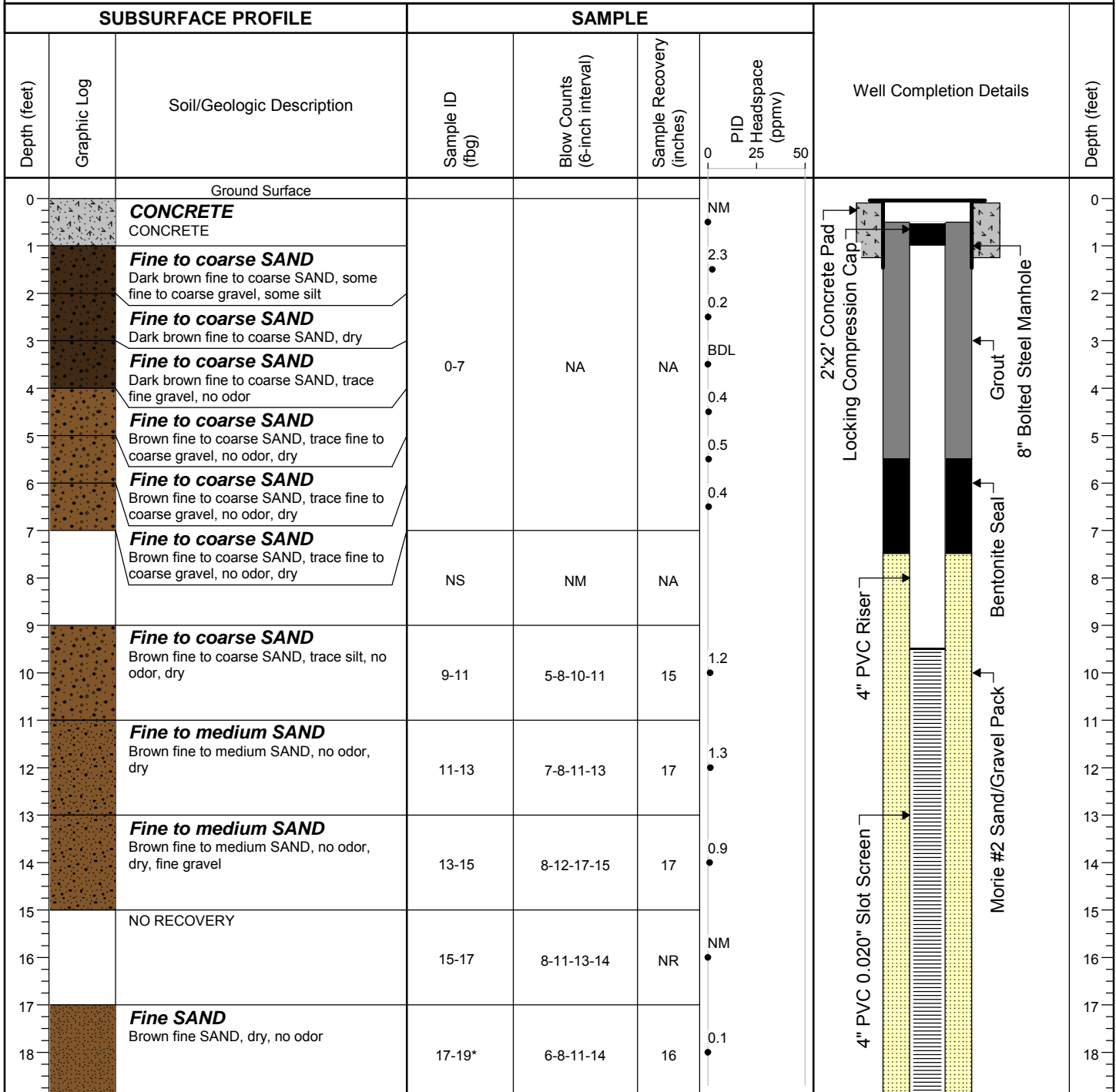
One Corporate Drive, Suite 201
Bohemia, NY 11716
(631) 218-0612

**Soil Boring Log/Monitoring
Well Construction Diagram
Well No. MW-20**

Project Name: Former Pratt Oil Works, Parcel I
Site Location: 38-20 Review Avenue, Long Island City, NY
Kleinfelder Project No: 104211
Client: Exxon Mobil Environmental Services
Start Date: June 20, 2009
End Date: June 20, 2009
Logged By (Geol.): Scott Strom
Checked By: John Wolf

Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: 1994 Ford B-61 Hydraulic drill rig
Drilling Method: 6 5/8" Hollow Stem Auger
Total Hole Depth: 30 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12"
Sampling Method: 2 foot by 2 " diameter split spoon

Surface Elevation: 29.07
Initial Water Level: 21 fbg
Notes: Precleared to 7 fbg. Drill rig hit refusal at approximately 30 fbg due to gravel or cobble layer encountered.



BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid
NM - not measured

NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis



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**Soil Boring Log/Monitoring
Well Construction Diagram
Well No. MW-20**

Project Name: Former Pratt Oil Works, Parcel I
Site Location: 38-20 Review Avenue, Long Island City, NY
Kleinfelder Project No: 104211
Client: Exxon Mobil Environmental Services
Start Date: June 20, 2009
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Logged By (Geol.): Scott Strom
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Drilling Company: LAWES
Driller: Kevin McGourty
Drill Rig Type: 1994 Ford B-61 Hydraulic drill rig
Drilling Method: 6 5/8" Hollow Stem Auger
Total Hole Depth: 30 fbg
Depth to Bedrock: Not encountered
Borehole Diameter: 12"
Sampling Method: 2 foot by 2 " diameter split spoon

Surface Elevation: 29.07
Initial Water Level: 21 fbg
Notes: Precleared to 7 fbg. Drill rig hit refusal at approximately 30 fbg due to gravel or cobble layer encountered.

SUBSURFACE PROFILE			SAMPLE				Well Completion Details	Depth (feet)
Depth (feet)	Graphic Log	Soil/Geologic Description	Sample ID (fbg)	Blow Counts (6-inch interval)	Sample Recovery (inches)	PID Headspace (ppmv)		
19		Fine to medium SAND Top 16"- dry, Bottom 4"- moist, Brown fine to medium SAND, no odor	20-21*	6-7-7-7	20	1.6		19
20		Fine SAND Brown fine SAND, some silt, wet	21-23	5-5-5-7	18	8.9		20
21		Fine SAND Grey fine SAND, odor, wet						21
22		Fine SAND Grey fine SAND, trace coarse gravel, odor, wet	23-24	7-10-11-15	20	6.5		22
23		Fine to coarse SAND Grey fine to coarse SAND, fine to coarse gravel, odor, wet	25-27	8-10-14-18	8	9.4		23
24		Fine to Coarse GRAVEL Grey fine to coarse GRAVEL and fine to coarse sand, wet	27-29	6-7-7-17	10	46.9		24
25	End of Borehole						25	
26							26	
27							27	
28							28	
29							29	
30							30	
31							31	
32							32	
33							33	
34							34	
35							35	
36							36	
37							37	

BDL - below instrument detection limit
fbg - feet below grade
msl - mean sea level
NA - not applicable
NAPL - non-aqueous phase liquid
NM - not measured


NR - no soil recovered
NS - not sampled
PID - photoionization detector
ppmv - parts per million by volume
PVC - polyvinyl chloride

Colors approximated using Munsell Color Chart, 2000.
Geologic descriptions based on ASTM D 2488.
* - sample collected for laboratory analysis

Date Begin - End: 4/24/12 - 4/26/12 **Drill Company:** Aquifer Drilling & Testing **BORING LOG MW-38**
Logged By: S. Strom **Drill Crew:** _____
Hor.-Vert. Datum: Not Available **Drill Equipment:** Limited Access Sonic Rig
Angle from Vert.: 0 degrees **Exploration Method:** Sonic Continuous
Weather: _____ **Auger Diameter:** 4 inches

Depth (feet)	FIELD EXPLORATION						MONITORING WELL
	Sample Interval / Type	Sample Number	Recovery (in)	Uncorr. blows/6"	PID / FID (ppm)	Graphical Log	Completion Method: Well completed to grade with 2' x 2' concrete well pad and 8" diameter traffic-rated, steel road box
0						Air knife - Utility clearance from 0 to 5 feet on 4/24/12	2" dia. Sch 40 PVC casing in concrete
5.6						Artificial Fill GRAVEL (GW-GM): brown, dry, some concrete and brick pieces Concrete and brick foundation encountered Coarse, angular gravel, brick and concrete	2" dia. Sch 40 PVC casing packed in bentonite
1.2						Artificial Fill SAND little gravel (SP-SC): fine to medium grained, black, dry	2" dia. Sch 40 PVC casing packed in #00 sand
8.9						Artificial Fill SAND (SP): wet, some coal ash Some coal ash	
3.1						Artificial Fill GRAVEL (GP-GM): black, wet, with brick pieces and coal ash	2" dia. 0.01 slotted Sch 40 PVC well screen from 5 to 20 feet packed in #00 sand
7.9						SAND: fine to medium grained, dark brown, wet	
20	The boring was terminated at approximately 20 feet below ground surface.						GROUNDWATER LEVEL INFORMATION: Groundwater was observed at approximately 10 ft. below ground surface during drilling. GENERAL NOTES: A 2-inch diameter well was installed to a depth of 20 ft. The exploration was backfilled with sand and pipe on April 26, 2012.

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	PROJECT NO. 124102 DRAWN BY: MEH CHECKED BY: SES DATE: REVISED:	BORING LOG MW-38 Former Pratt Oil Works 39-14 Review Avenue Long Island City, New York	PLATE 9 PAGE: 1 of 1
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APPENDIX F
BAILDOWN TEST RESULTS

BALDOWN FIELD MEASUREMENTS

Well Name GAL-14

Test Date 9/4/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 7:49	0:00	13.11	15.35	2.24

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 8:10	0.5	14.27	14.55	0.28
9/4/2014 8:11	1.5	14.05	14.39	0.34
9/4/2014 8:12	2	13.95	14.32	0.37
9/4/2014 8:12	2.5	13.88	14.22	0.34
9/4/2014 8:13	3	13.80	14.23	0.43
9/4/2014 8:13	3.5	13.75	14.07	0.32
9/4/2014 8:15	5	13.64	14	0.36
9/4/2014 8:16	6	13.58	13.99	0.41
9/4/2014 8:17	7	13.53	13.94	0.41
9/4/2014 8:18	8	13.50	13.92	0.42
9/4/2014 8:19	9	13.47	13.89	0.42
9/4/2014 8:20	10	13.45	13.87	0.42
9/4/2014 8:30	20	13.35	13.79	0.44
9/4/2014 8:40	30	13.32	13.77	0.45
9/4/2014 9:10	60	13.30	13.8	0.50
9/4/2014 9:40	90	13.28	13.83	0.55
9/4/2014 10:40	150	13.27	13.86	0.59
9/4/2014 11:40	210	13.20	13.87	0.67
9/4/2014 12:40	270	13.19	13.9	0.71
9/4/2014 13:40	330	13.18	13.96	0.78
9/4/2014 14:40	390	13.21	14.05	0.84
9/4/2014 15:48	458	13.14	14.03	0.89
9/4/2014 16:50	520	13.11	14.07	0.96
9/4/2014 17:55	585	13.1	14.11	1.01
9/4/2014 7:25	1395	13.1	14.8	1.70
9/5/2014 11:04	1614	13.05	14.9	1.85

Volume of oil removed	2.7	gallons
Volume of water removed	0.14	gallons

Well Name GAL-17

Test Date 9/4/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 15:12	0:00	12.88	16.97	4.09

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 15:29	1	13.25	13.47	0.22
9/4/2014 15:30	2	13.25	13.48	0.23
9/4/2014 15:31	3	13.23	13.50	0.27
9/4/2014 15:32	4	13.23	13.51	0.28
9/4/2014 15:33	5	13.22	13.53	0.31
9/4/2014 15:34	6	13.22	13.55	0.33
9/4/2014 15:35	7	13.22	13.55	0.33
9/4/2014 15:36	8	13.22	13.57	0.35
9/4/2014 15:37	9	13.22	13.58	0.36
9/4/2014 15:38	10	13.22	13.60	0.38
9/4/2014 15:49	21	13.20	13.71	0.51
9/4/2014 15:58	30	13.19	13.85	0.66
9/4/2014 16:08	40	13.17	13.96	0.79
9/4/2014 16:18	50	13.16	14.09	0.93
9/4/2014 16:28	60	13.14	14.18	1.04
9/4/2014 16:38	70	13.13	14.28	1.15
9/4/2014 16:54	86	13.11	14.43	1.32
9/4/2014 17:24	116	13.08	14.69	1.61
9/4/2014 18:00	152	12.99	14.92	1.93
9/5/2014 7:47	979	12.9	16.60	3.70
9/5/2014 11:39	1211	12.89	16.62	3.73

Volume of oil removed	2.625	gallons
Volume of water removed	0.25	gallons

Well Name GAL-26

Test Date 9/8/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/8/2014 9:36	0:00	12.99	15.60	2.61

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/8/2014 9:56	1	13.25	13.48	0.23
9/8/2014 9:57	2	13.24	13.49	0.25
9/8/2014 9:58	3	13.23	13.48	0.25
9/8/2014 9:59	4	13.23	13.49	0.26
9/8/2014 10:00	5	13.24	13.48	0.24
9/8/2014 10:01	6	13.24	13.49	0.25
9/8/2014 10:02	7	13.24	13.49	0.25
9/8/2014 10:03	8	13.23	13.49	0.26
9/8/2014 10:04	9	13.25	13.49	0.24
9/8/2014 10:05	10	13.24	13.49	0.25
9/8/2014 10:15	20	13.25	13.49	0.24
9/8/2014 10:25	30	13.22	13.51	0.29
9/8/2014 10:35	40	13.21	13.50	0.29
9/8/2014 10:45	50	13.21	13.50	0.29
9/8/2014 10:55	60	13.21	13.50	0.29
9/8/2014 11:05	70	13.21	13.51	0.30
9/8/2014 11:15	80	13.21	13.51	0.30
9/8/2014 11:25	90	13.21	13.52	0.31
9/8/2014 11:55	120	13.20	13.51	0.31
9/8/2014 13:00	185	13.20	13.52	0.32
9/8/2014 13:30	210	13.20	13.55	0.35
9/8/2014 14:00	240	13.20	13.55	0.35
9/8/2014 14:30	270	13.18	13.54	0.36
9/8/2014 15:00	300	13.17	13.55	0.38
9/8/2014 15:30	330	13.19	13.57	0.38
9/8/2014 16:00	360	13.17	13.57	0.40

Volume of oil removed	1.5625	gallons
Volume of water removed	0.3125	gallons

Well Name GAL-32

Test Date 9/3/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/3/2014 14:07	0:00	11.35	14.40	3.05

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/3/2014 14:28	0.5	11.72	12.69	0.97
9/3/2014 14:29	1.5	11.78	12.76	0.98
9/3/2014 14:30	2.5	11.61	12.83	1.22
9/3/2014 14:31	3.5	11.60	12.83	1.23
9/3/2014 14:32	4.5	11.51	12.87	1.36
9/3/2014 14:33	5.5	11.59	12.9	1.31
9/3/2014 14:34	6.5	11.58	12.97	1.39
9/3/2014 14:35	7.5	11.58	12.98	1.40
9/3/2014 14:36	8.5	11.57	12.95	1.38
9/3/2014 14:37	9.5	11.57	12.99	1.42
9/3/2014 14:38	10.5	11.56	13.03	1.47
9/3/2014 14:39	20.5	11.54	13.18	1.64
9/3/2014 14:58	30.5	11.52	13.2	1.68
9/3/2014 15:07	39.75	11.51	13.27	1.76
9/3/2014 15:18	50.5	11.51	13.31	1.80
9/3/2014 15:28	60.5	11.50	13.35	1.85
9/3/2014 15:38	70.75	11.49	13.38	1.89
9/3/2014 15:48	80.5	11.49	13.40	1.91
9/3/2014 15:48	90.75	11.48	13.41	1.93
9/3/2014 16:08	100.5	11.48	13.42	1.94
9/3/2014 16:18	110.5	11.47	13.42	1.95
9/3/2014 16:28	120.5	11.47	13.38	1.91
9/3/2014 16:48	140.5	11.47	13.38	1.91
9/4/2014 7:18	870.5	11.55	13.66	2.11
9/4/2014 11:54	1134.5	11.49	13.53	2.04
9/4/2014 15:53	1373.5	11.41	13.37	1.96
9/4/2014 17:52	1612.5	11.37	13.33	1.96
9/5/2014 7:32	2422.5	11.43	13.48	2.05
9/5/2014 11:06	2636.5	11.37	13.40	2.03
9/5/2014 13:34	2784.5	11.4	13.37	1.97

Volume of oil removed	0.525	gallons
Volume of water removed	0.1	gallons

Well Name GAL-35Test Date 9/4/2014*Pretest*

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 8:50	0:00	13.28	19.03	5.75

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 11:29	1	13.61	15.97	2.36
9/4/2014 11:30	2	13.60	16.11	2.51
9/4/2014 11:31	3	13.59	16.13	2.54
9/4/2014 11:32	4	13.58	16.17	2.59
9/4/2014 11:33	5	13.58	16.18	2.60
9/4/2014 11:34	6	13.58	16.15	2.57
9/4/2014 11:36	8	13.58	16.16	2.58
9/4/2014 11:37	9	13.58	16.17	2.59
9/4/2014 11:38	10	13.58	16.17	2.59
9/4/2014 11:48	20	13.55	16.24	2.69
9/4/2014 12:00	32	13.55	16.40	2.85
9/4/2014 12:12	42	13.55	16.53	2.98
9/4/2014 12:22	52	13.54	16.40	2.86
9/4/2014 12:32	62	13.53	16.56	3.03
9/4/2014 12:42	72	13.52	16.38	2.86
9/4/2014 12:52	82	13.51	16.53	3.02
9/4/2014 13:02	92	13.51	16.55	3.04
9/4/2014 13:32	122	13.45	16.89	3.44
9/4/2014 14:05	155	13.45	17.14	3.69
9/4/2014 14:35	185	13.40	17.27	3.87
9/4/2014 15:05	215	13.38	17.27	3.89
9/4/2014 15:42	252	13.37	17.26	3.89
9/4/2014 16:45	315	13.32	17.35	4.03
9/4/2014 17:43	373	13.30	17.60	4.30
9/5/2014 7:58	1228	13.26	18.77	5.51
9/5/2014 11:16	1426	13.19	18.76	5.57

Volume of oil removed
Volume of water removed1 gallon

Well Name GAL-36

Test Date 9/5/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/5/2014 8:23	0:00	13.42	18.30	4.88

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/5/2014 8:40	1	13.70	15.84	2.14
9/5/2014 8:41	2	13.68	16.03	2.35
9/5/2014 8:42	3	13.65	16.20	2.55
9/5/2014 8:43	4	13.64	16.36	2.72
9/5/2014 8:44	5	13.63	16.45	2.83
9/5/2014 8:45	6	13.62	16.51	2.89
9/5/2014 8:46	7	13.61	16.63	3.02
9/5/2014 8:47	8	13.60	16.68	3.08
9/5/2014 8:48	9	13.59	16.78	3.19
9/5/2014 8:49	10	13.58	16.86	3.28
9/5/2014 8:59	20	13.52	17.23	3.71
9/5/2014 9:09	30	13.49	17.48	3.99
9/5/2014 9:19	40	13.48	17.68	4.20
9/5/2014 9:29	50	13.47	17.74	4.27
9/5/2014 9:39	60	13.46	17.76	4.30
9/5/2014 10:09	90	13.45	17.81	4.36
9/5/2014 10:39	120	13.45	17.87	4.42
9/5/2014 11:29	167	13.43	17.85	4.42

Volume of oil removed 0.8125 gallons
Volume of water removed _____

Well Name GAL-37

Test Date 9/4/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 13:40	0:00	13.42	16.33	2.91

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/4/2014 13:54	0.5	13.65	14.36	0.71
9/4/2014 13:55	1	13.64	14.13	0.49
9/4/2014 13:56	2	13.62	14.58	0.96
9/4/2014 13:57	3	13.62	14.50	0.88
9/4/2014 13:58	4	13.60	14.61	1.01
9/4/2014 13:59	5	13.59	14.65	1.06
9/4/2014 14:00	6	13.58	14.67	1.09
9/4/2014 14:01	7	13.58	14.82	1.24
9/4/2014 14:02	8	13.58	14.73	1.15
9/4/2014 14:03	9	13.57	14.73	1.16
9/4/2014 14:04	10	13.57	14.78	1.21
9/4/2014 14:05	11	13.54	14.78	1.24
9/4/2014 14:15	21	13.53	14.88	1.35
9/4/2014 14:25	31	13.52	15.24	1.72
9/4/2014 14:35	41	13.51	15.08	1.57
9/4/2014 14:45	51	13.51	15.26	1.75
9/4/2014 15:41	107	13.50	15.25	1.75
9/4/2014 16:11	137	13.49	15.10	1.61
9/4/2014 16:41	167	13.48	15.15	1.67
9/4/2014 17:11	197	13.48	15.13	1.65
9/4/2014 17:41	227	13.48	15.11	1.63
9/5/2014 7:45	1071	13.5	15.25	1.75
9/5/2014 11:35	1301	13.49	15.15	1.66
9/5/2014 13:45	1661	13.47	15.09	1.62

Volume of oil removed 0.35 gallons
Volume of water removed 0.15 gallons

Well Name MW-8

Test Date 9/5/2014

Pretest

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/5/2014 9:34	0:00	14.04	19.42	5.36

TEST

Date/Time	Elapsed Time	Depth to Air-Oil	Depth to Oil-Water	Free Oil Thickness
9/5/2014 9:52	1	14.45	15.53	1.08
9/5/2014 9:53	2	14.42	15.62	1.20
9/5/2014 9:54	3	14.42	15.73	1.31
9/5/2014 9:55	4	14.41	15.83	1.42
9/5/2014 9:56	5	14.40	15.92	1.52
9/5/2014 9:57	6	14.39	16.02	1.63
9/5/2014 9:58	7	14.38	16.11	1.73
9/5/2014 9:59	8	14.37	16.22	1.85
9/5/2014 10:00	9	14.36	16.29	1.93
9/5/2014 10:01	10	14.35	16.37	2.02
9/5/2014 10:11	20	14.27	17.11	2.84
9/5/2014 10:21	30	14.22	17.64	3.42
9/5/2014 10:31	40	14.18	18.12	3.94
9/5/2014 10:41	50	14.14	18.32	4.18
9/5/2014 10:51	60	14.12	18.52	4.40
9/5/2014 11:01	70	14.10	18.67	4.57
9/5/2014 11:21	90	14.08	18.93	4.85
9/5/2014 11:51	120	14.11	19.17	5.06
9/5/2014 12:51	180	14.08	19.16	5.08

Volume of oil removed 0.825 gallons
 Volume of water removed 0.0625 gallons

BAILDOWN ANALYSIS

Well Designation: GAL-14
 Date: 8-Sep-14

Ground Surface Elev (ft msl)	16.3	Enter These Data	r_{e1}	Drawdown Adjustment (ft)	0.08
Top of Casing Elev (ft msl)	15.85				
Well Casing Radius, r_c (ft):	0.165				
Well Radius, r_w (ft):	0.500				
LNAPL Specific Yield, S_y :	0.175				
LNAPL Density Ratio, ρ_r :	0.890				
Top of Screen (ft bgs):	10.0				
Bottom of Screen (ft bgs):	30.0	Calculated Parameters			
LNAPL Bardown Vol. (gal.):					
Effective Radius, r_{e3} (ft):	0.257				
Effective Radius, r_{e2} (ft):	0.249				
Initial Casing LNAPL Vol. (gal.):	2.02				
Initial Filter LNAPL Vol. (gal.):	2.89				

Enter Data Here					Water Table		LNAPL				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Depth (ft)	Drawdown s_n (ft)	Average Time (min)	LNAPL Discharge Q_n (ft ³ /d)	s_n (ft)	b_n (ft)	r_e (ft)
Initial Fluid Levels:	0	13.19	16.35	13.61	16.77	13.96				3.16	
Enter Test Data:	1.0	13.61	13.95	14.03	14.37	14.07	0.34				
	2.0	13.60	13.95	14.02	14.37	14.06	0.33	1.5	2.995	0.33	0.35
	3.0	13.55	13.97	13.97	14.39	14.02	0.28	2.5	20.967	0.30	0.42
	4.0	13.55	13.96	13.97	14.38	14.02	0.28	3.5	-2.995	0.28	0.41
	5.0	13.53	13.95	13.95	14.37	14.00	0.26	4.5	2.995	0.27	0.42
	6.0	13.53	13.95	13.95	14.37	14.00	0.26	5.5	0.000	0.26	0.42
	7.0	13.52	13.95	13.94	14.37	13.99	0.25	6.5	2.995	0.25	0.43
	8.0	13.52	13.95	13.94	14.37	13.99	0.25	7.5	0.000	0.25	0.43
	9.0	13.52	13.95	13.94	14.37	13.99	0.25	8.5	0.000	0.25	0.43
	10.0	13.51	13.96	13.93	14.38	13.98	0.24	9.5	5.991	0.24	0.45
	20.0	13.50	14.00	13.92	14.42	13.98	0.23	15.0	1.498	0.23	0.50
	30.0	13.49	14.07	13.91	14.49	13.97	0.22	25.0	2.396	0.22	0.58
	40.0	13.49	14.12	13.91	14.54	13.98	0.22	35.0	1.498	0.22	0.63
	55.0	13.5	14.19	13.92	14.61	14.00	0.23	47.5	1.198	0.22	0.69
	68.0	13.48	14.25	13.90	14.67	13.98	0.21	61.5	1.843	0.22	0.77
	78.0	13.48	14.31	13.90	14.73	13.99	0.21	73.0	1.797	0.21	0.83
	88.0	13.47	14.36	13.89	14.78	13.99	0.20	83.0	1.797	0.21	0.89
	98.0	13.47	14.40	13.89	14.82	13.99	0.20	93.0	1.198	0.20	0.93
	128.0	13.45	14.52	13.87	14.94	13.99	0.18	113.0	1.398	0.19	1.07
	158.0	13.34	14.62	13.76	15.04	13.90	0.07	143.0	2.097	0.12	1.28
	188.0	13.41	14.75	13.83	15.17	13.98	0.14	173.0	0.599	0.10	1.34
	248.0	13.38	14.95	13.80	15.37	13.97	0.11	218.0	1.148	0.12	1.57
	278.0	13.37	15.06	13.79	15.48	13.98	0.10	263.0	1.198	0.10	1.69
	308.00	13.37	15.15	13.79	15.57	13.99	0.10	293.0	0.899	0.10	1.78
	338.00	13.34	15.23	13.76	15.65	13.97	0.07	323.0	1.098	0.08	1.89
	368.00	13.34	15.33	13.76	15.75	13.98	0.07	353.0	0.998	0.07	1.99
	398.00	13.34	15.42	13.76	15.84	13.99	0.07	383.0	0.899	0.07	2.08
	425.00	13.32	15.47	13.74	15.89	13.98	0.05	411.5	0.777	0.06	2.15

Figure 1

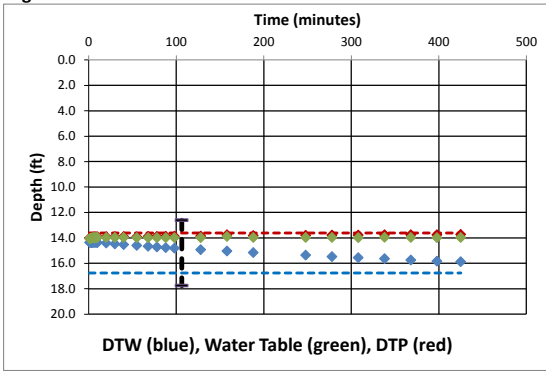


Figure 2

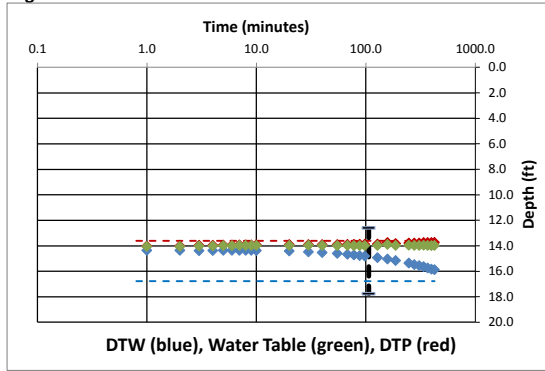


Figure 3

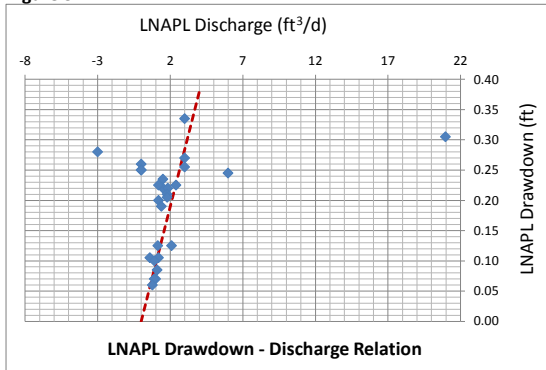


Figure 4

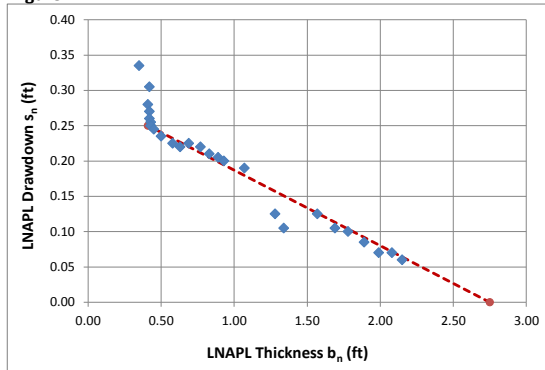


Figure 5

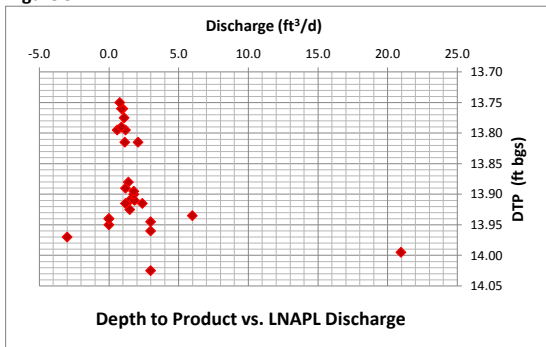


Figure 6

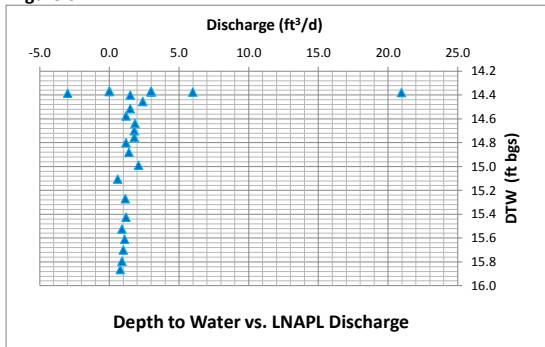


Figure 7

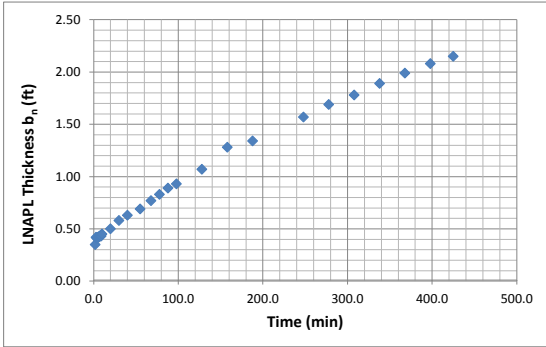


Figure 8

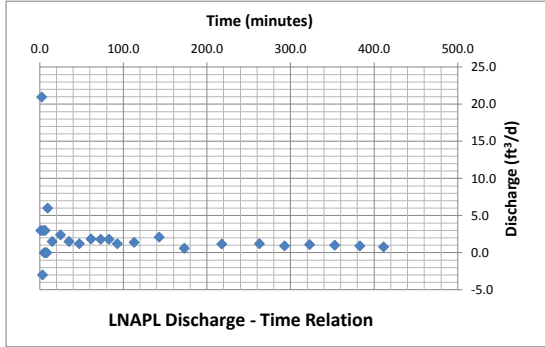


Figure 9

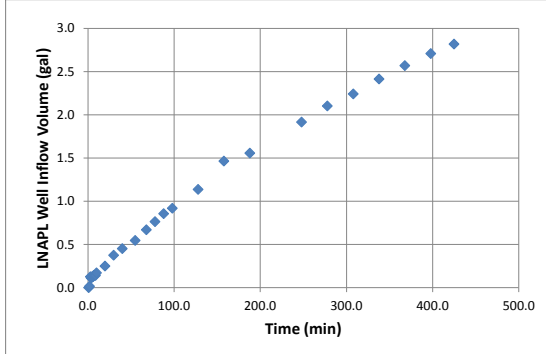
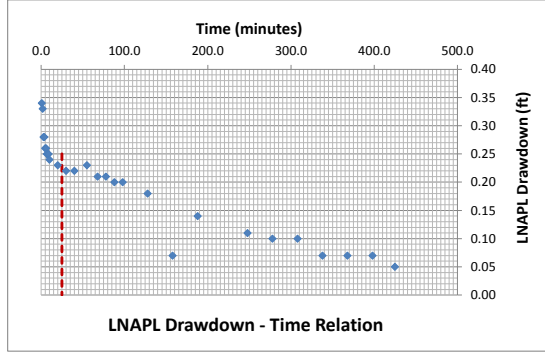


Figure 10



Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

Enter early time cut-off for least-squares model fit

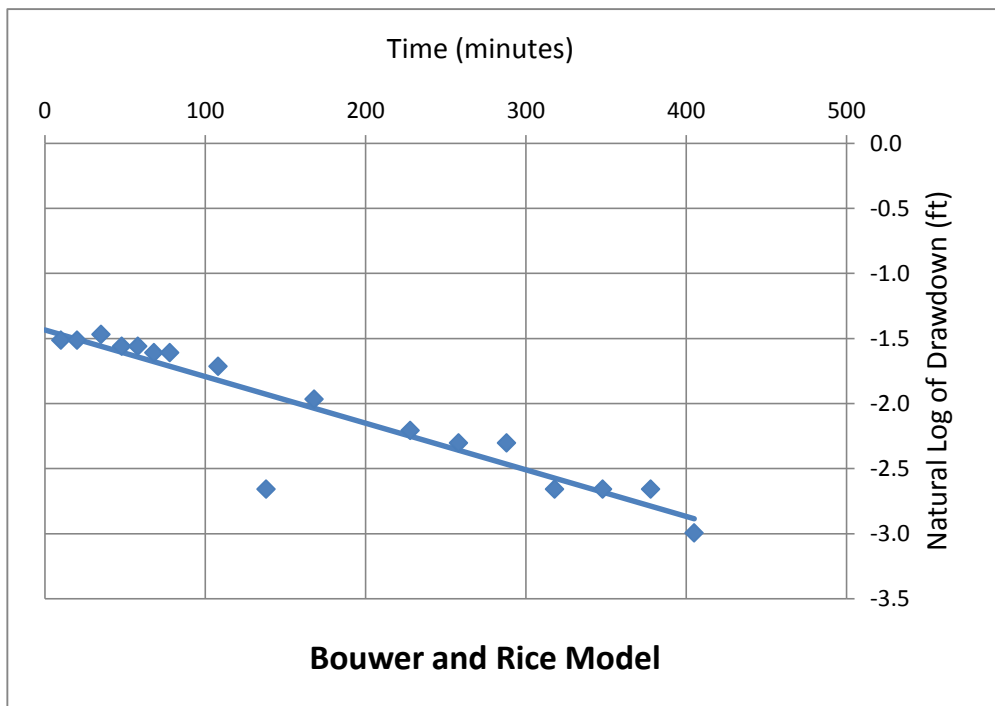
Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d

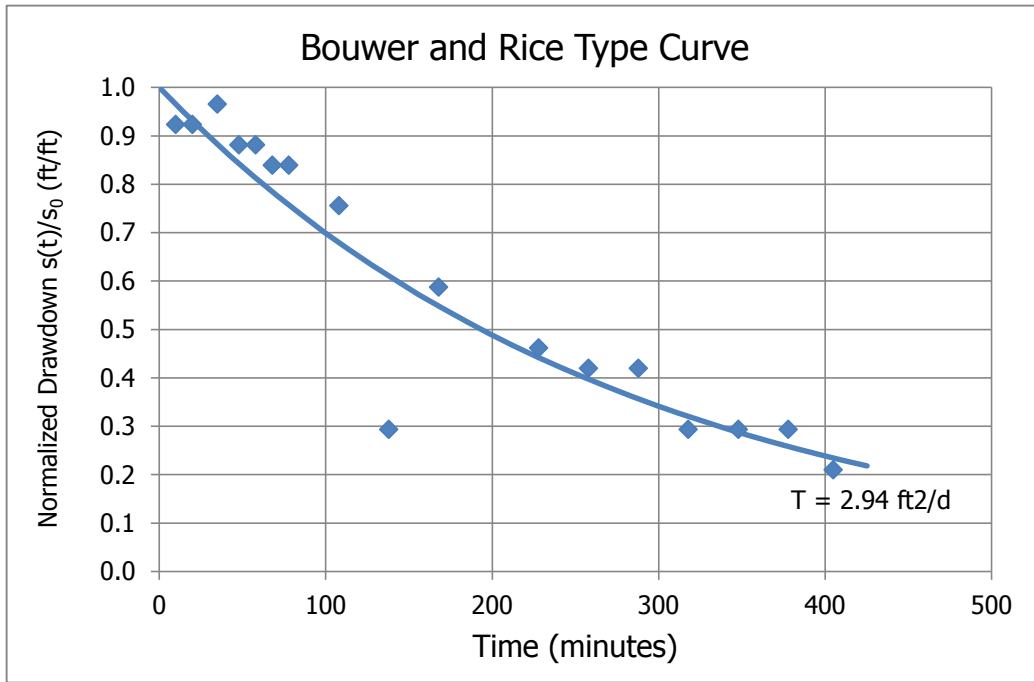
L_e/r_e	12.3
C	1.28
R/r_e	6.31

J-Ratio	-0.107
---------	--------

Coef. Of Variation	0.11
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C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	20	<- Enter or change values here
Time Adjustment (min):	10	

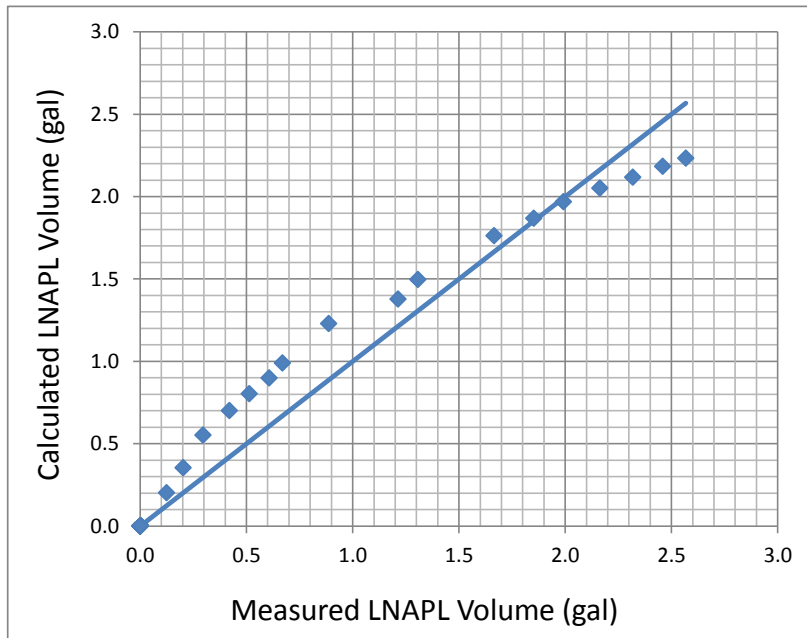
Trial S_n: 0.150 <-- Change S_n value can be manual

Root-Mean-Square Error: 0.936 <-- Minimize this using "Solver"

Trial T_n (ft²/d): 2.359 <-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 2.36



Cooper, Bredehoeft and Papadopolos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	20	<- Enter or change values here
Time Adjustment (min):	10	
Initial Drawdown s _n (ft):	0.34	

Trial S_n: 0.150 <- Adjust manually or through "Solver"

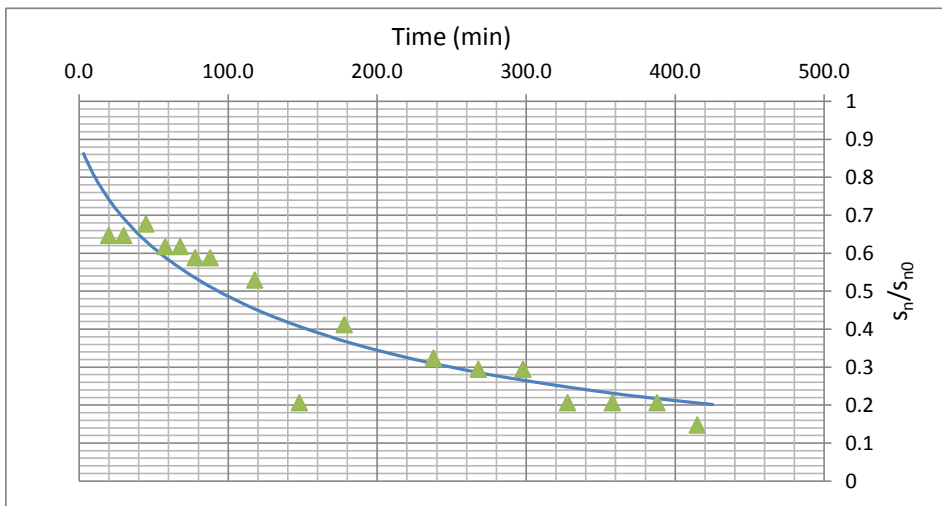
Root-Mean-Square Error: 0.284 <- Minimize this using "Solver"

Trial T_n (ft²/d): 3.273 <- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 3.27

T _{min}	3
T _{max}	425



J-Ratio
-0.107

Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

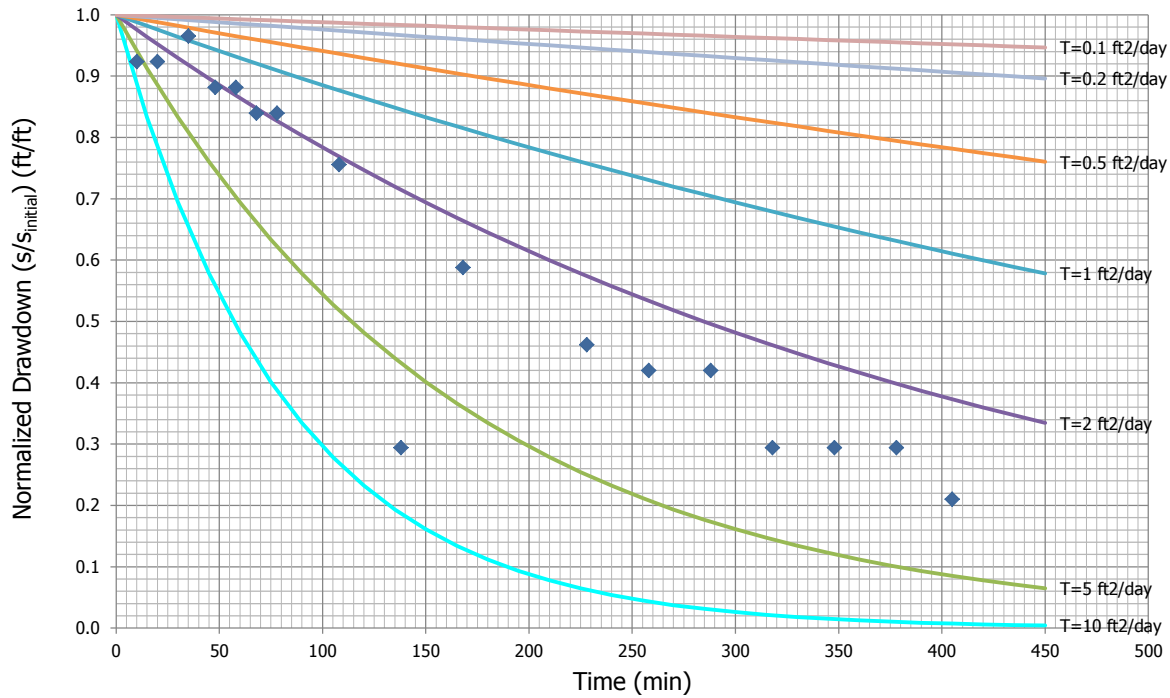
B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		450	10
2	T=5 ft ² /day		450	5
3	T=2 ft ² /day		450	2
4	T=1 ft ² /day		450	1
5	T=0.5 ft ² /day		450	0.5
6	T=0.2 ft ² /day		450	0.2
7	T=0.1 ft ² /day		450	0.1

J-Ratio	
-0.107	<-- If uncertain use
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5



Well Designation:

GAL-17

Date:

8-Sep-14

Ground Surface Elev (ft msl)	16.31
Top of Casing Elev (ft msl)	15.82
Well Casing Radius, r_c (ft):	0.165
Well Radius, r_w (ft):	0.500
LNAPL Specific Yield, S_y :	0.175
LNAPL Density Ratio, ρ_r :	0.890
Top of Screen (ft bgs):	12.0
Bottom of Screen (ft bgs):	27.0
LNAPL Baildown Vol. (gal.):	
Effective Radius, r_{e3} (ft):	0.257
Effective Radius, r_{e2} (ft):	0.249
Initial Casing LNAPL Vol. (gal.):	2.62
Initial Filter LNAPL Vol. (gal.):	3.75

Enter These Data

r_{e1}

Drawdown Adjustment (ft)
0.08

Calculated Parameters

Enter Data Here				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)
0	12.88	16.97	13.37	17.46

Initial Fluid Levels:

Enter Test Data:

1.0	13.25	13.47	13.74	13.96
2.0	13.25	14.48	13.74	14.97
3.0	13.23	13.50	13.72	13.99
4.0	13.23	13.51	13.72	14.00
5.0	13.22	13.53	13.71	14.02
6.0	13.22	13.55	13.71	14.04
7.0	13.22	13.55	13.71	14.04
8.0	13.22	13.47	13.71	13.96
9.0	13.22	13.58	13.71	14.07
10.0	13.22	13.60	13.71	14.09
21.0	13.20	13.71	13.69	14.20
30.0	13.19	13.85	13.68	14.34
40.0	13.17	13.96	13.66	14.45
50.0	13.16	14.09	13.65	14.58
60.0	13.14	14.18	13.63	14.67
70.0	13.13	14.28	13.62	14.77
86.0	13.11	14.43	13.60	14.92
116.0	13.08	14.69	13.57	15.18
152.0	12.99	14.92	13.48	15.41

Figure 1

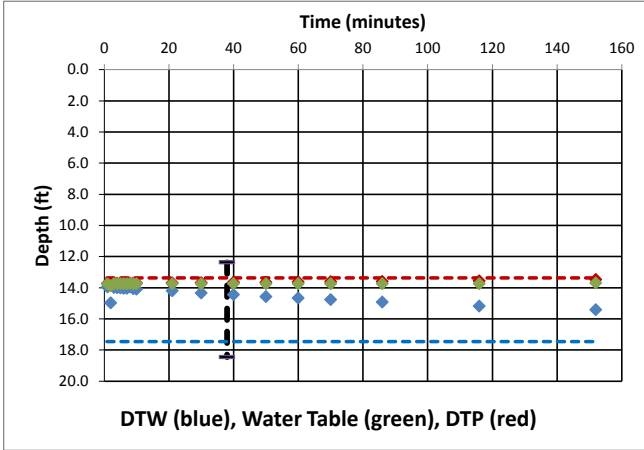


Figure 2

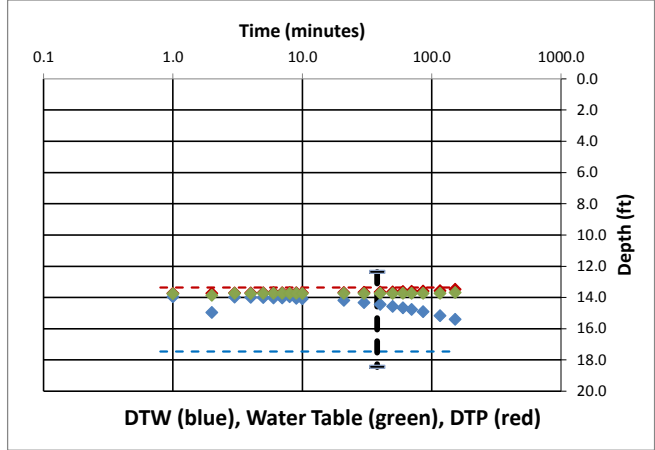


Figure 3

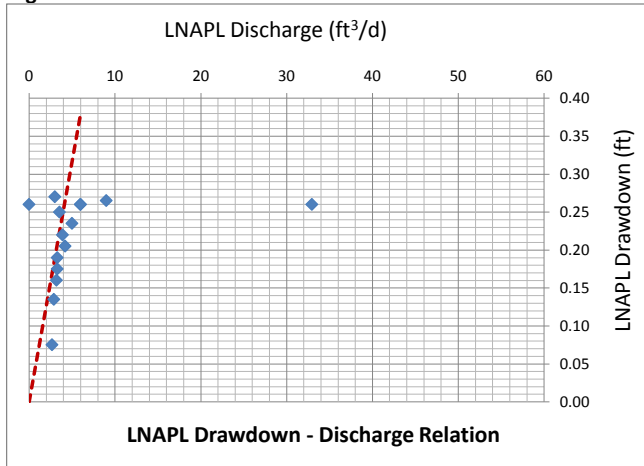


Figure 4

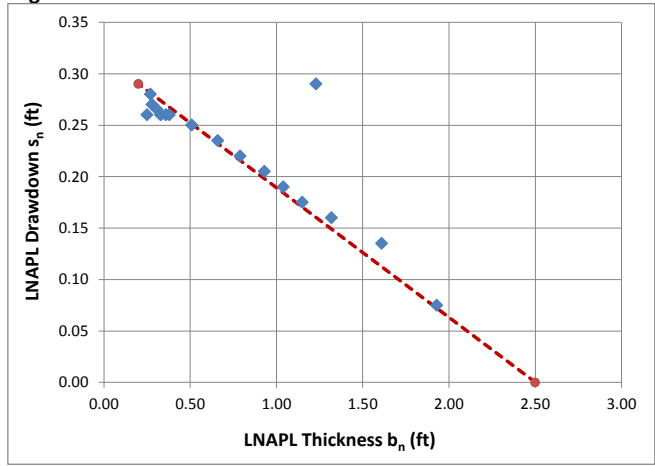


Figure 5

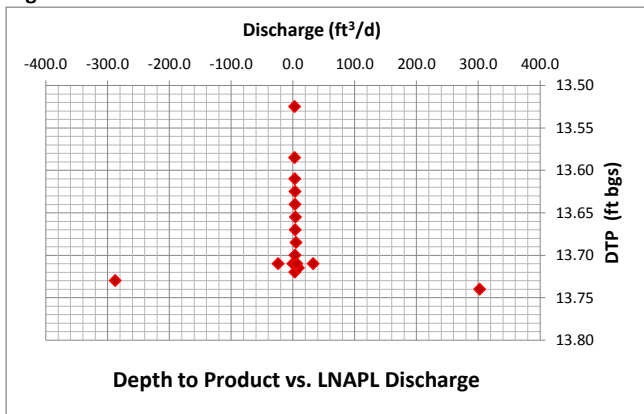


Figure 6

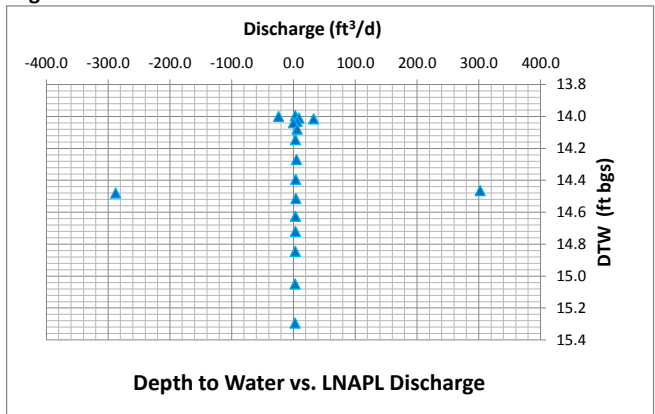


Figure 7

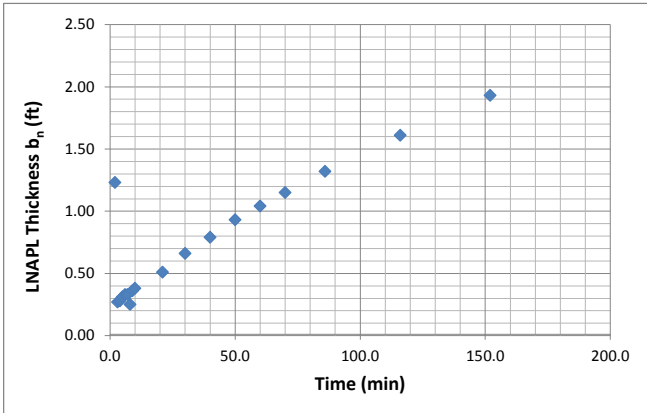


Figure 8

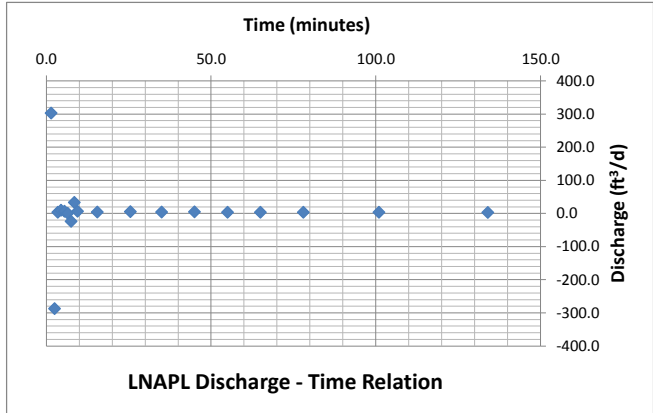


Figure 9

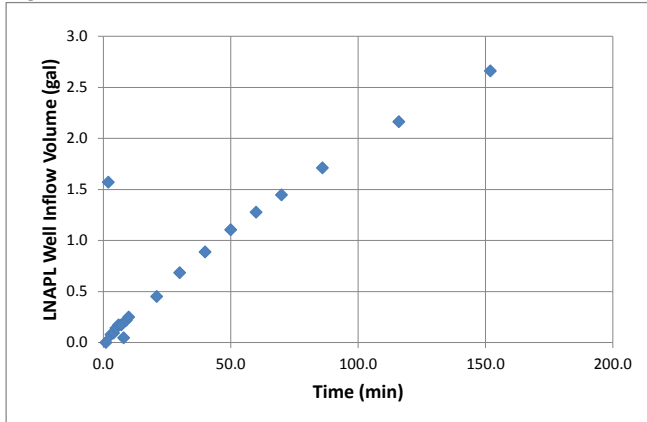
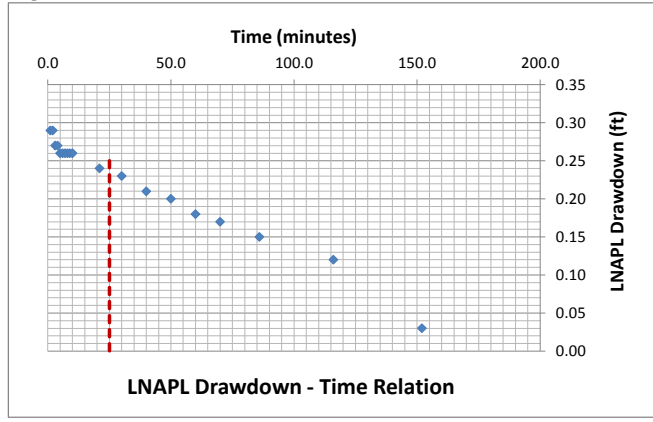


Figure 10



Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

Enter early time cut-off for least-squares model fit

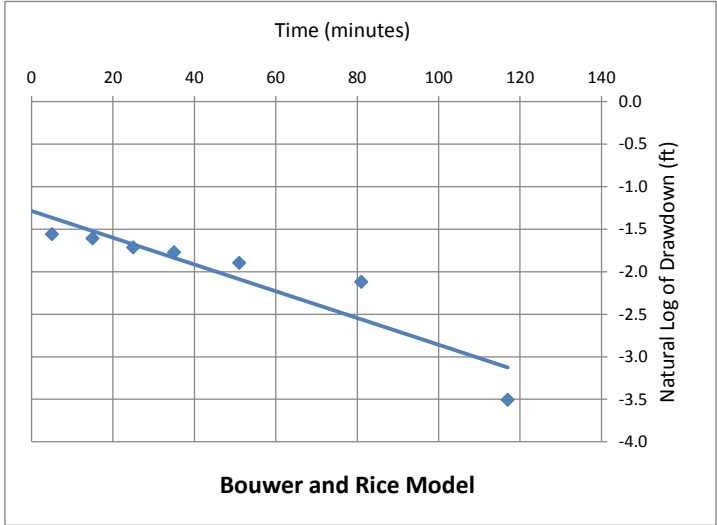
Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d

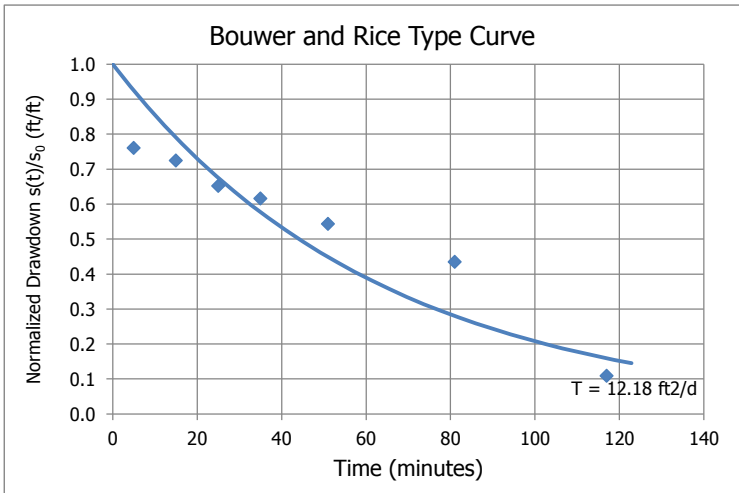
L_e/r_e	15.9
C	1.43
R/r_e	7.78

J-Ratio	-0.126
---------	--------

Coef. Of Variation	0.19
--------------------	------



C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	35
Time Adjustment (min):	20

<- Enter or change values here

Trial S_n:

0.080

<-- Change S_n value can be manual

Root-Mean-Square Error:

0.365

<-- Minimize this using "Solver"

Trial T_n (ft²/d):

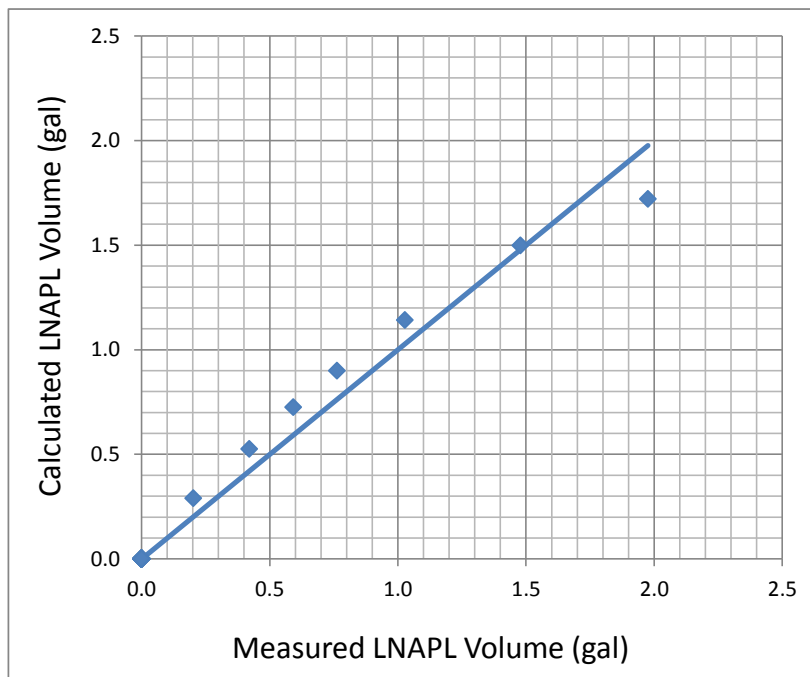
6.891

<-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result:

T_n (ft²/d) = 6.89



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	35
Time Adjustment (min):	20
Initial Drawdown s _n (ft):	0.29

<- Enter or change values here

Trial S_n: 0.080

<- Adjust manually or through "Solver"

Root-Mean-Square Error: 0.240

<- Minimize this using "Solver"

Trial T_n (ft²/d): 5.892

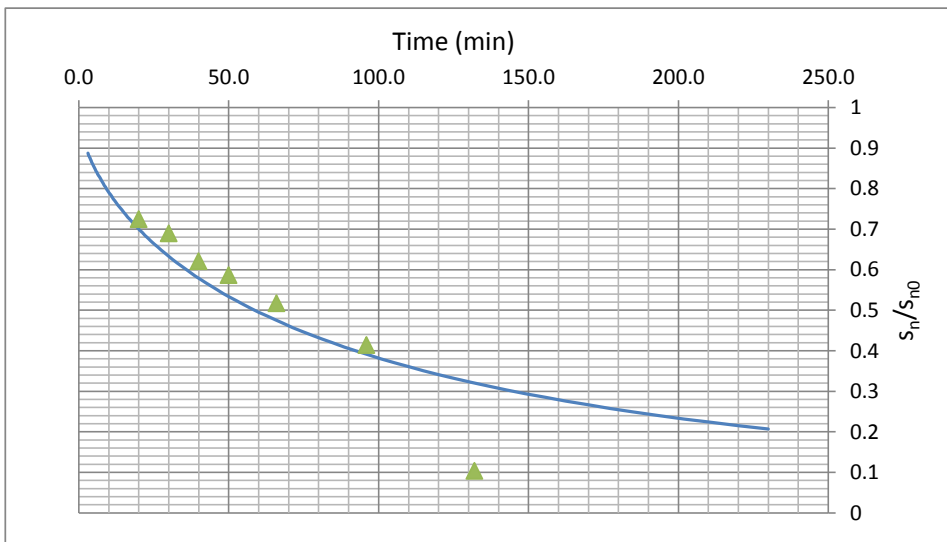
<- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 5.89

T _{min}	3
T _{max}	230

J-Ratio
-0.126



Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

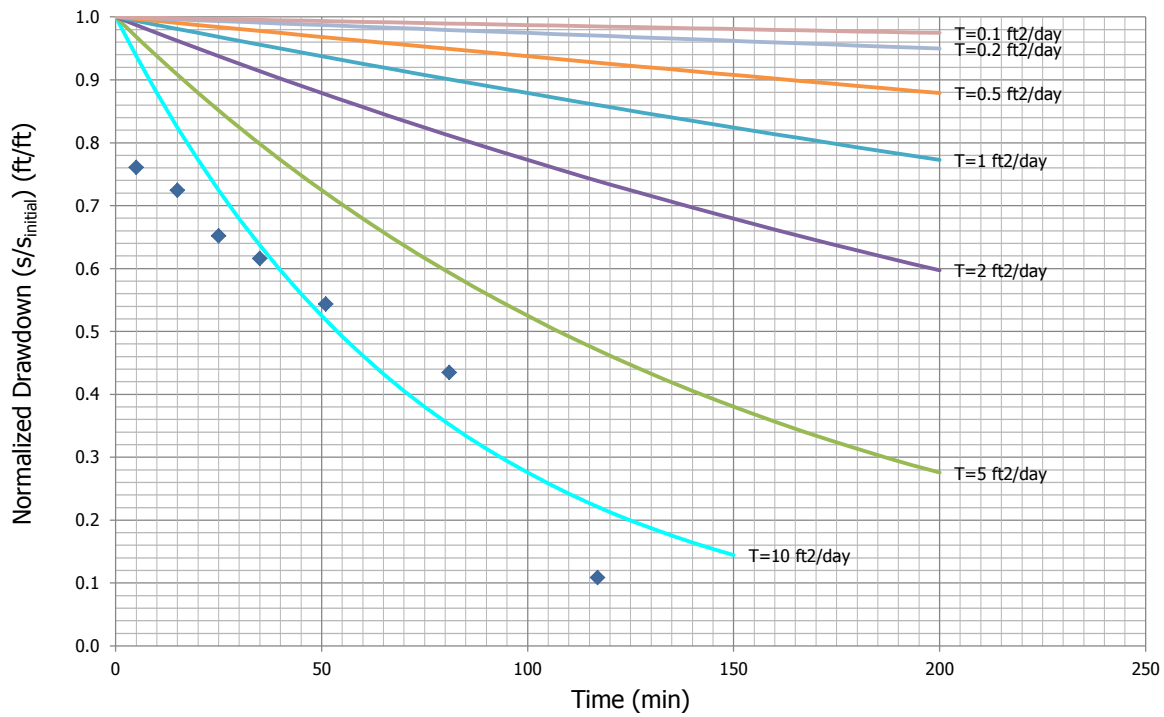
B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.126	<-- If uncertain use
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5



Well Designation: GAL-26
 Date: 8-Sep-14

Ground Surface Elev (ft msl)	15.8	Enter These Data	r_{e1}	Drawdown Adjustment (ft)	0.17
Top of Casing Elev (ft msl)	15.55				
Well Casing Radius, r_c (ft):	0.165				
Well Radius, r_w (ft):	0.500				
LNAPL Specific Yield, S_y :	0.175				
LNAPL Density Ratio, ρ_1 :	0.890				
Top of Screen (ft bgs):	8.0	Calculated Parameters			
Bottom of Screen (ft bgs):	28.0				
LNAPL Baildown Vol. (gal.):					
Effective Radius, r_{e3} (ft):	0.257				
Effective Radius, r_{e2} (ft):	0.249				
Initial Casing LNAPL Vol. (gal.):	1.67				
Initial Filter LNAPL Vol. (gal.):	2.39				

Enter Data Here					Water Table		LNAPL				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Depth (ft)	Drawdown s_n (ft)	Average Time (min)	Discharge Q_n (ft ³ /d)	s_n (ft)	b_n (ft)	r_e (ft)
Initial Fluid Levels:	0	12.99	15.6	13.27	15.88	13.56				2.61	
Enter Test Data:	1.0	13.25	13.48	13.53	13.76	13.56	0.09				
	2.0	13.24	13.49	13.52	13.77	13.55	0.08	1.5	5.991	0.08	0.25
	3.0	13.24	13.48	13.52	13.76	13.55	0.08	2.5	-2.995	0.08	0.24
	4.0	13.23	13.49	13.51	13.77	13.54	0.07	3.5	5.991	0.08	0.26
	5.0	13.23	13.48	13.51	13.76	13.54	0.07	4.5	-2.995	0.07	0.25
	6.0	13.24	13.49	13.52	13.77	13.55	0.08	5.5	0.000	0.08	0.25
	7.0	13.24	13.49	13.52	13.77	13.55	0.08	6.5	0.000	0.08	0.25
	8.0	13.23	13.49	13.51	13.77	13.54	0.07	7.5	2.995	0.08	0.26
	9.0	13.25	13.49	13.53	13.77	13.56	0.09	8.5	-5.991	0.08	0.24
	10.0	13.24	13.50	13.52	13.78	13.55	0.08	9.5	5.991	0.08	0.26
	20.0	13.25	13.49	13.53	13.77	13.56	0.09	15.0	-0.599	0.08	0.24
	30.0	13.22	13.51	13.50	13.79	13.53	0.06	25.0	1.498	0.07	0.29
	40.0	13.21	13.50	13.49	13.78	13.52	0.05	35.0	0.000	0.05	0.29
	50.0	13.21	13.50	13.49	13.78	13.52	0.05	45.0	0.000	0.05	0.29
	60.0	13.21	13.50	13.49	13.78	13.52	0.05	55.0	0.000	0.05	0.29
	70.0	13.21	13.51	13.49	13.79	13.52	0.05	65.0	0.300	0.05	0.30
	80.0	13.21	13.51	13.49	13.79	13.52	0.05	75.0	0.000	0.05	0.30
	90.0	13.21	13.52	13.49	13.80	13.52	0.05	85.0	0.300	0.05	0.31
	120.0	13.2	13.51	13.48	13.79	13.51	0.04	105.0	0.000	0.04	0.31
	185.0	13.2	13.52	13.48	13.80	13.52	0.04	152.5	0.046	0.04	0.32
	210.0	13.2	13.55	13.48	13.83	13.52	0.04	197.5	0.359	0.04	0.35
	240.0	13.2	13.55	13.48	13.83	13.52	0.04	225.0	0.000	0.04	0.35
	270.0	13.18	13.54	13.46	13.82	13.50	0.02	255.0	0.100	0.03	0.36
	300.00	13.17	13.55	13.45	13.83	13.49	0.01	285.0	0.200	0.01	0.38
	330.00	13.19	13.57	13.47	13.85	13.51	0.03	315.0	0.000	0.02	0.38
	360.00	13.17	13.57	13.45	13.85	13.49	0.01	345.0	0.200	0.02	0.40

Figure 1

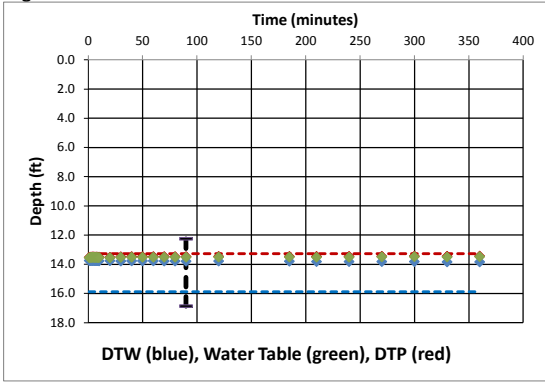


Figure 2

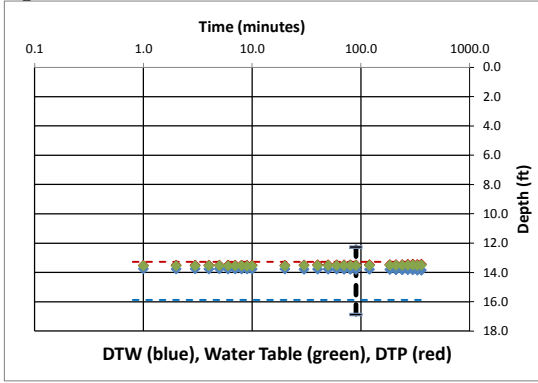


Figure 3

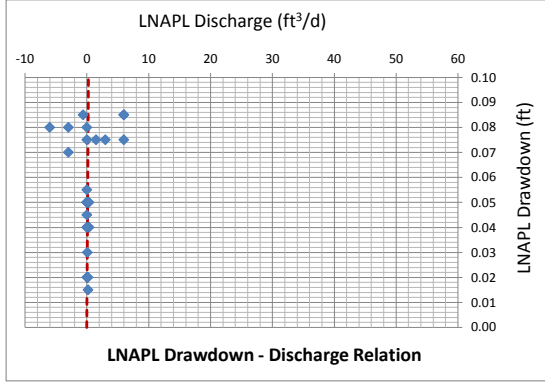


Figure 4

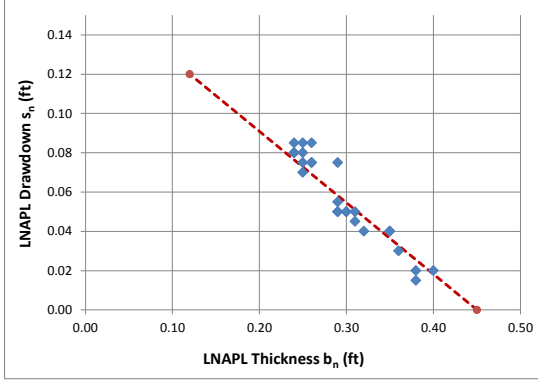


Figure 5

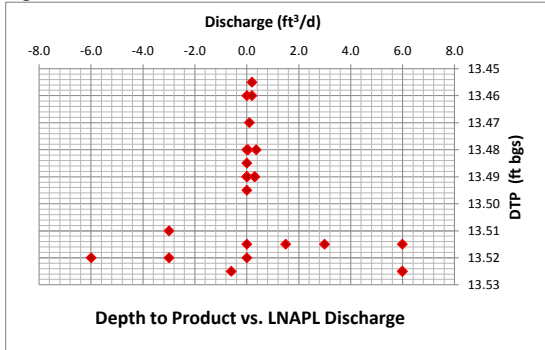


Figure 6

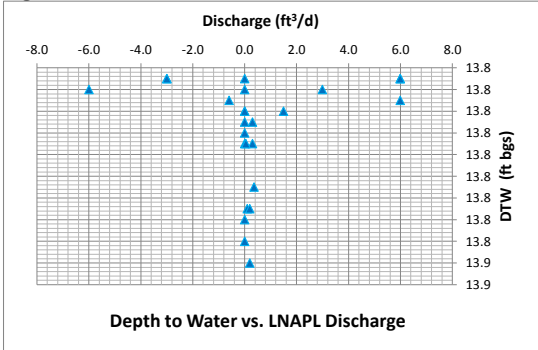


Figure 7

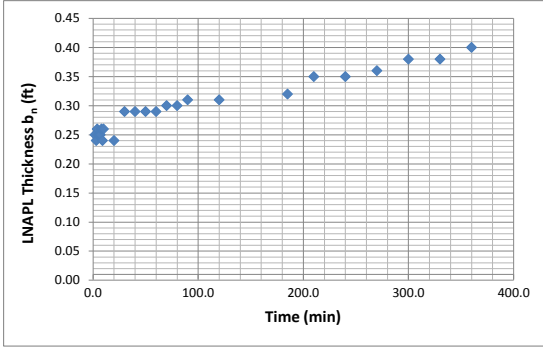


Figure 8

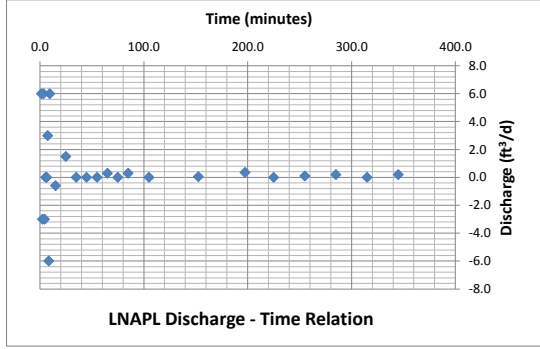


Figure 9

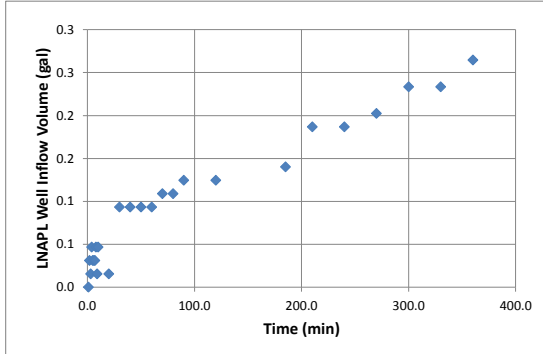
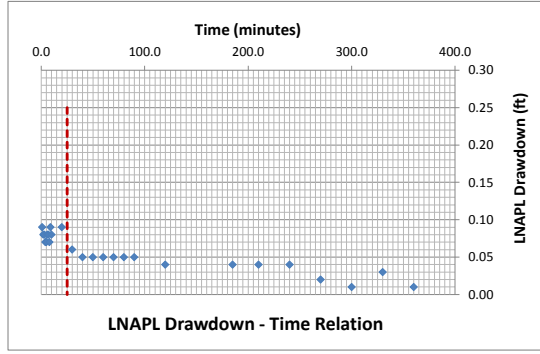


Figure 10



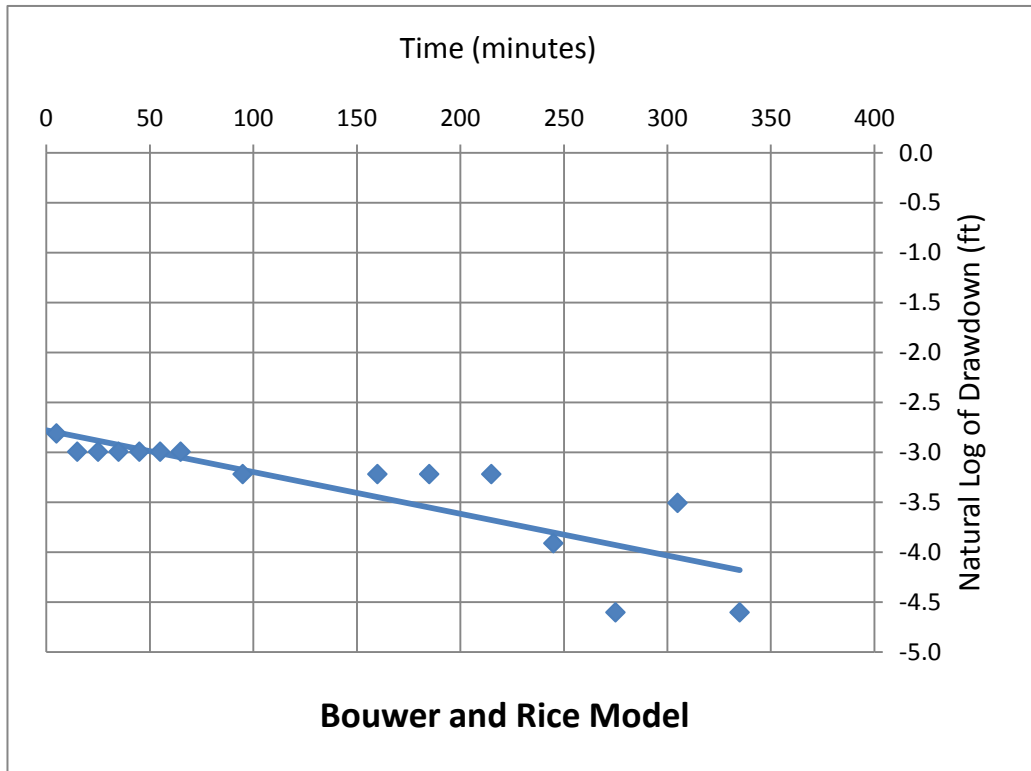
Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t - t_1)}$$

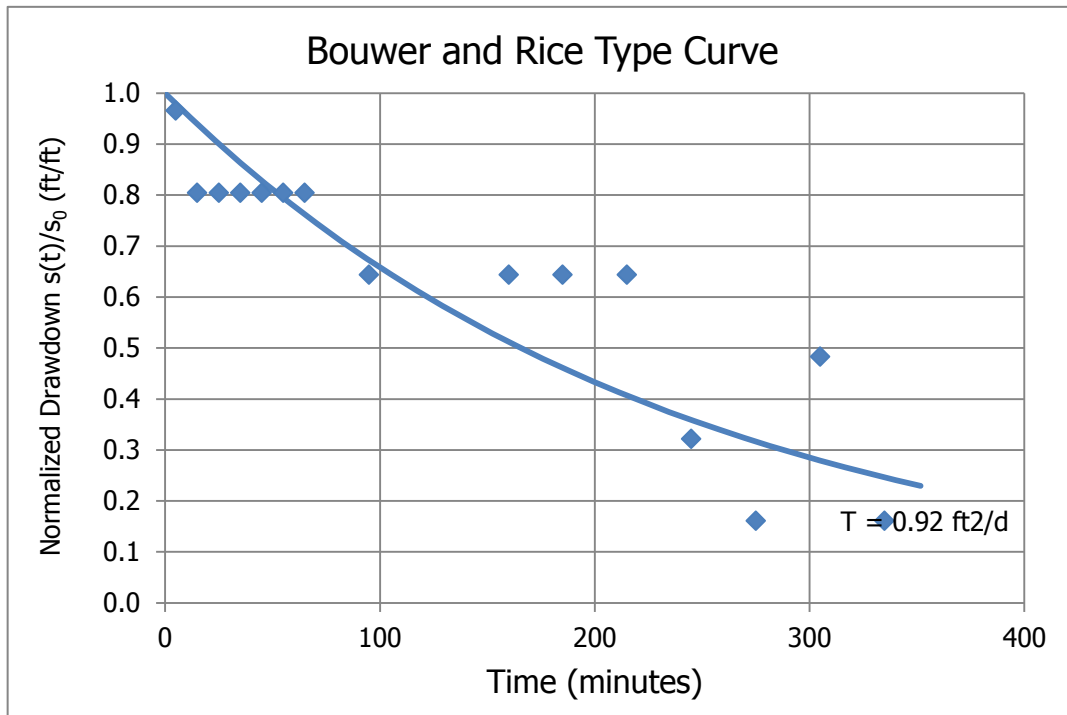
Enter early time cut-off for least-squares model fit

Time_{cut} <- Enter or change value here

Model Results: +/- ft²/d



C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15

<- Enter or change values here

Trial S_n:

0.076

<-- Change S_n value can be manual

Root-Mean-Square Error:

0.072

<-- Minimize this using "Solver"

Trial T_n (ft²/d):

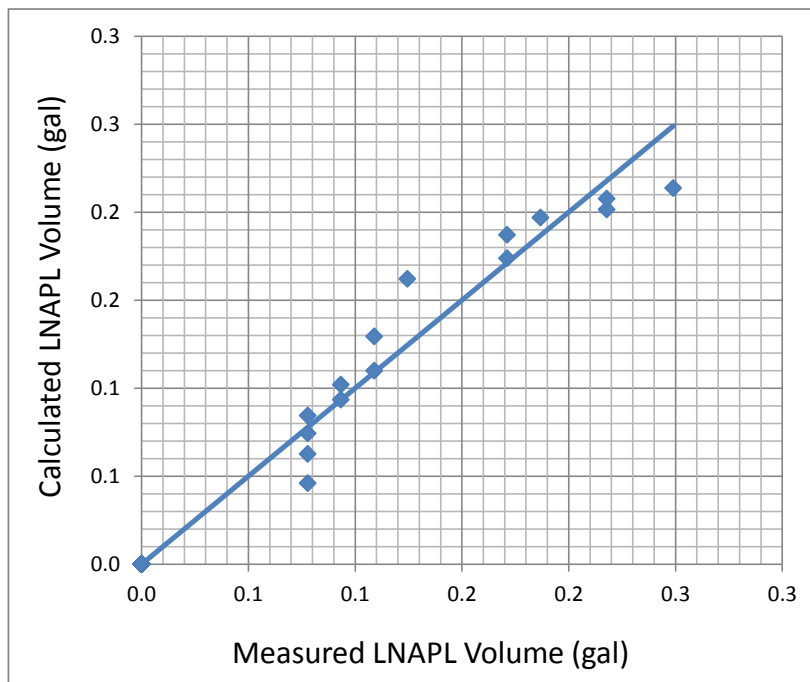
0.637

<-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result:

T_n (ft²/d) = 0.64



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15
Initial Drawdown s _n (ft):	0.09

<- Enter or change values here

Trial S_n: 0.075

<-- Adjust manually or through "Solver"

Root-Mean-Square Error: 0.392

<-- Minimize this using "Solver"

Trial T_n (ft²/d): 1.484

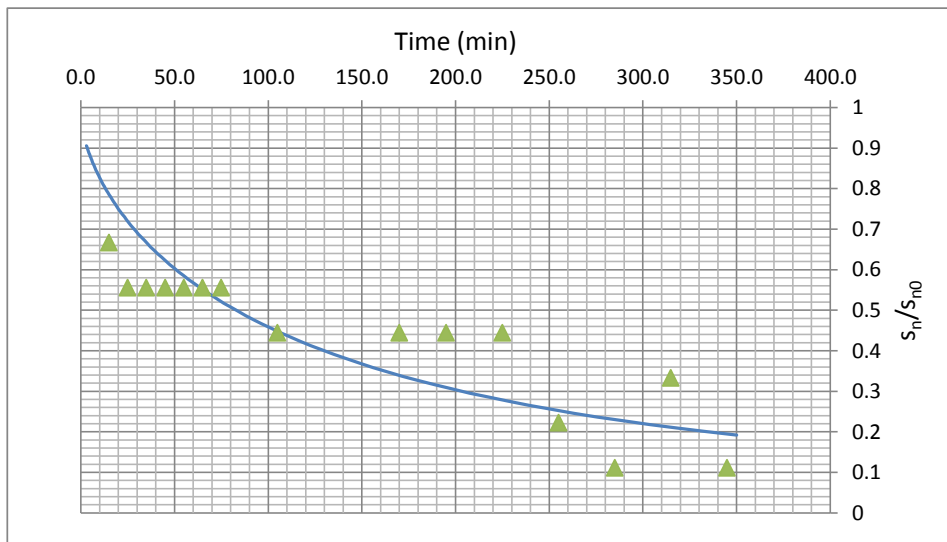
<-- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 1.48

T _{min}	3
T _{max}	350

J-Ratio
-0.364



Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

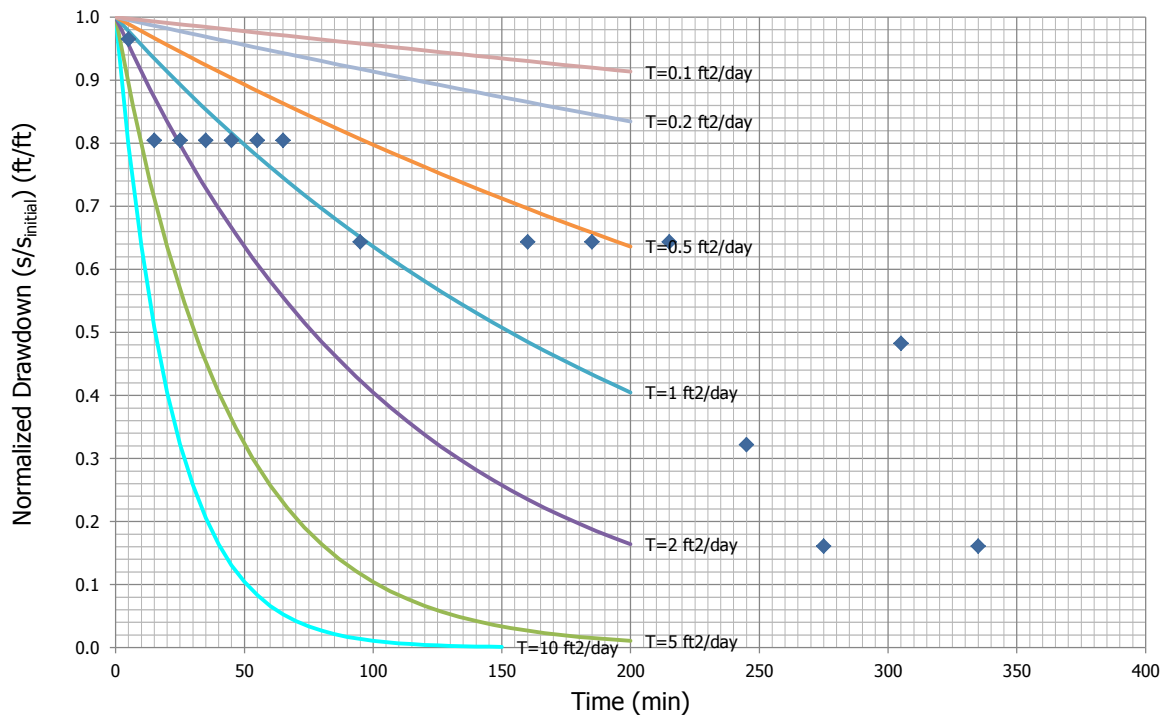
B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.364	<-- If uncertain use
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.165 ; Borehole Rad. (ft) = 0.5



Well Designation:

GAL-32
8-Sep-14

Date:

Ground Surface Elev (ft msl)	14.13	Enter These Data	r_{e1}	Drawdown Adjustment (ft) -0.06
Top of Casing Elev (ft msl)	13.77			
Well Casing Radius, r_c (ft):	0.083			
Well Radius, r_w (ft):	0.333			
LNAPL Specific Yield, S_y :	0.175			
LNAPL Density Ratio, ρ_r :	0.890			
Top of Screen (ft bgs):	5.0			
Bottom of Screen (ft bgs):	25.0			
LNAPL Baildown Vol. (gal.):	0.6	Calculated Parameters		
Effective Radius, r_{e3} (ft):	0.158			
Effective Radius, r_{e2} (ft):	0.152			
Initial Casing LNAPL Vol. (gal.):	0.49			
Initial Filter LNAPL Vol. (gal.):	1.30			

Enter Data Here				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)
0	11.35	14.4	11.71	14.76

Initial Fluid Levels:

Enter Test Data:

0.5	11.72	12.64	12.08	13.00
1.5	11.78	12.76	12.14	13.12
2.5	11.61	12.83	11.97	13.19
3.5	11.60	12.83	11.96	13.19
5.0	11.51	12.87	11.87	13.23
5.5	11.59	12.90	11.95	13.26
6.5	11.58	12.97	11.94	13.33
7.5	11.58	12.98	11.94	13.34
8.5	11.57	12.95	11.93	13.31
9.5	11.57	12.99	11.93	13.35
10.5	11.56	13.03	11.92	13.39
20.5	11.54	13.18	11.90	13.54
30.5	11.52	13.20	11.88	13.56
39.8	11.51	13.27	11.87	13.63
50.5	11.51	13.31	11.87	13.67
60.5	11.5	13.35	11.86	13.71
70.8	11.49	13.38	11.85	13.74
80.5	11.49	13.40	11.85	13.76
90.8	11.48	13.41	11.84	13.77
100.5	11.48	13.42	11.84	13.78
110.5	11.47	13.42	11.83	13.78
120.5	11.47	13.38	11.83	13.74
140.5	11.47	13.38	11.83	13.74

Figure 1

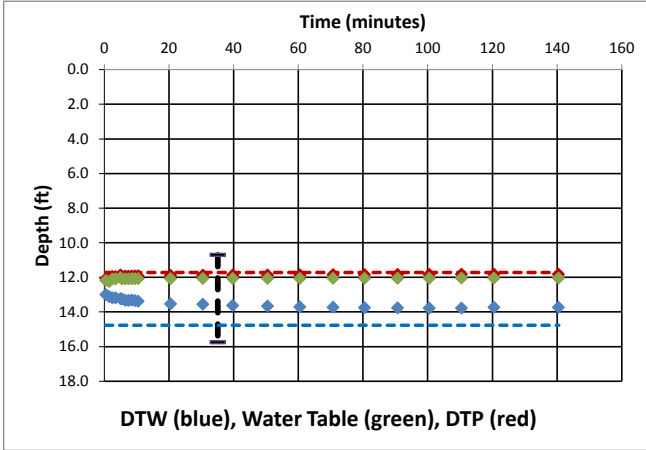


Figure 2

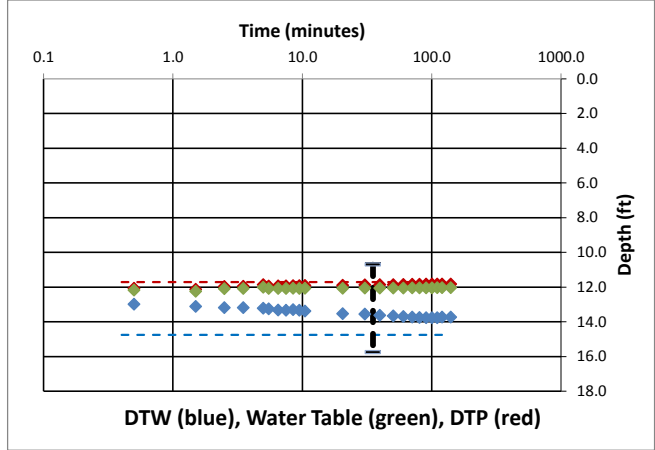


Figure 3

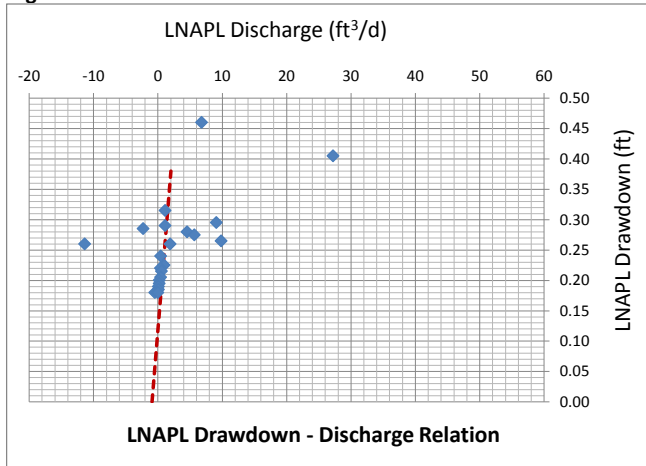


Figure 4

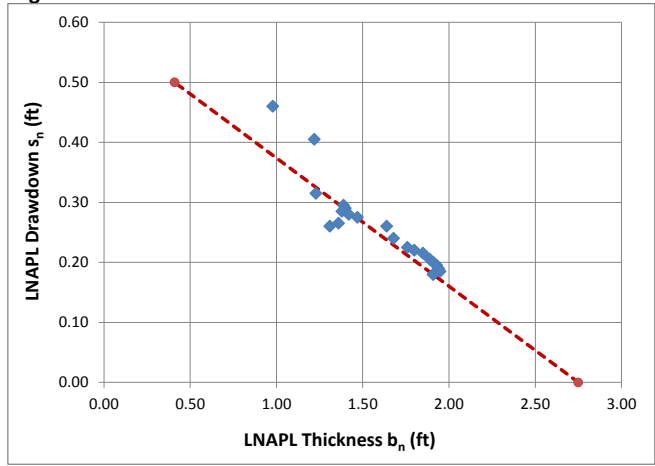


Figure 5

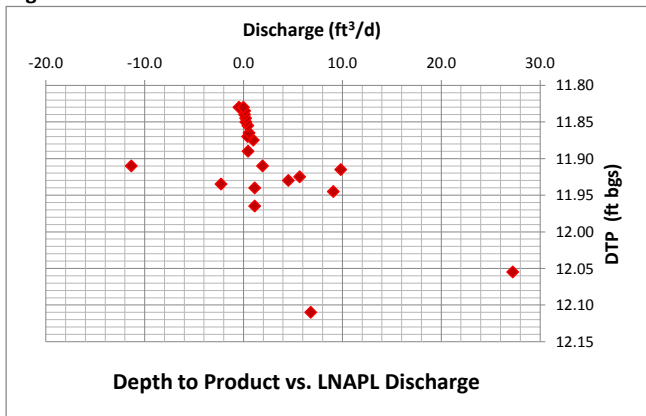


Figure 6

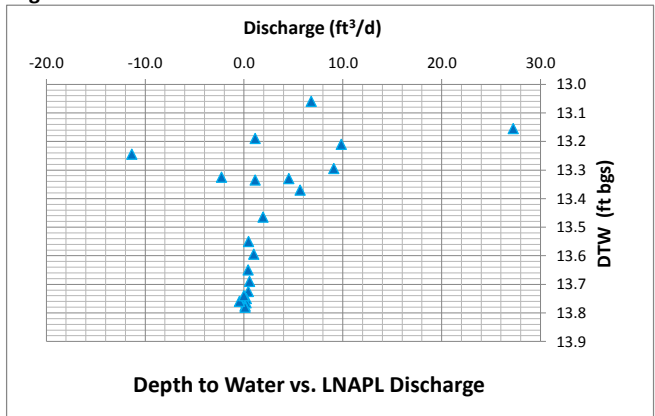


Figure 7

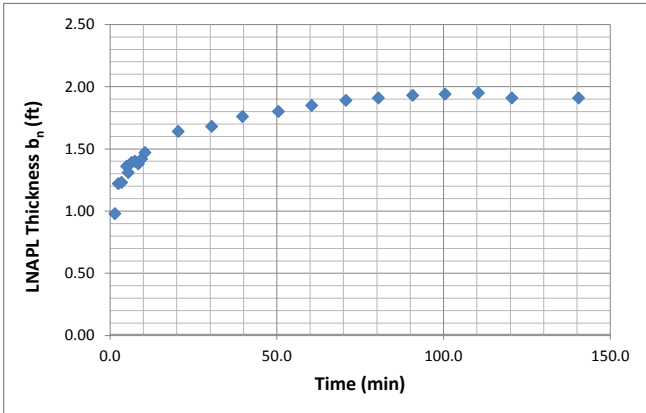


Figure 8

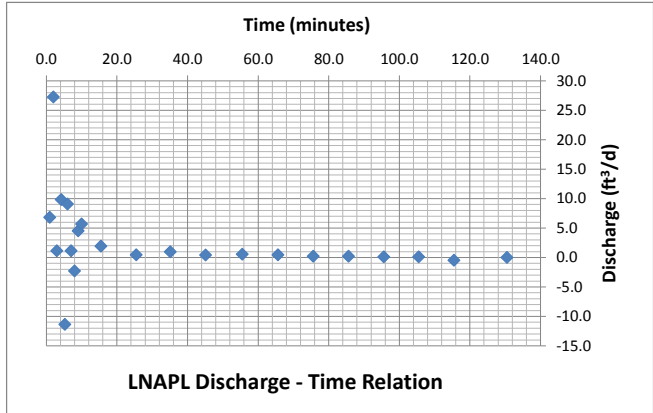


Figure 9

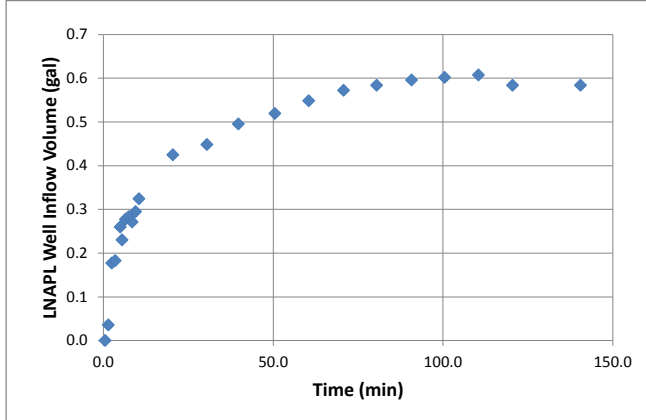
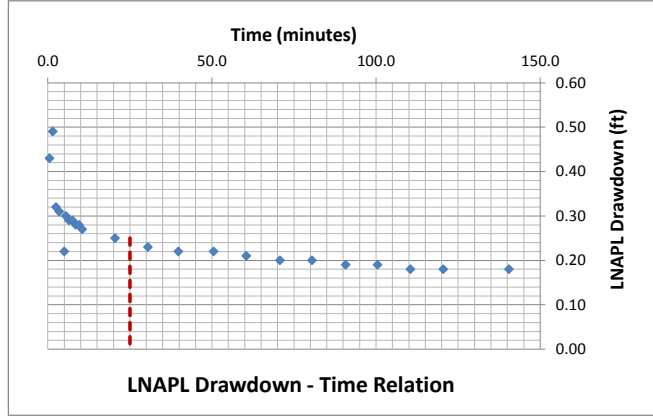


Figure 10



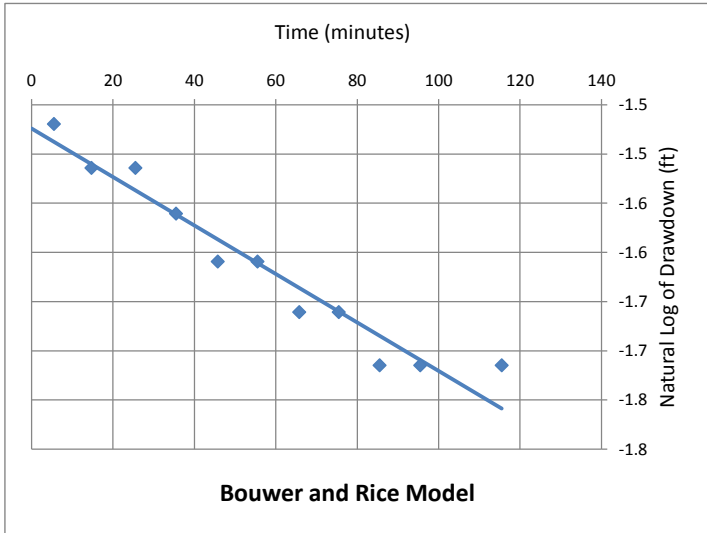
Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

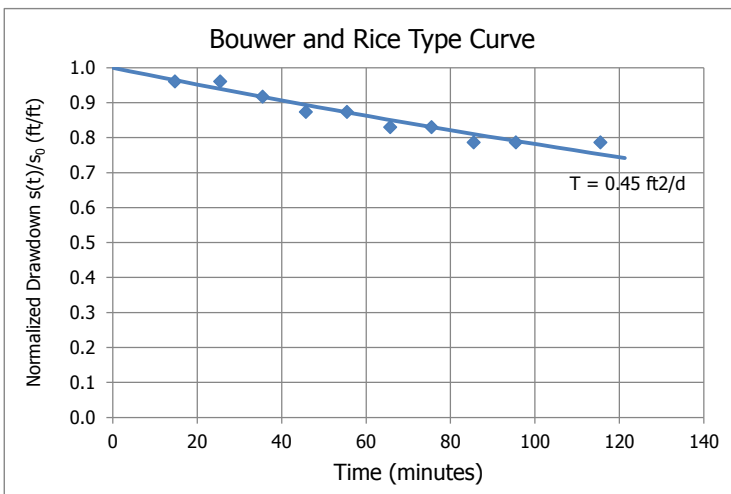
Enter early time cut-off for least-squares model fit

Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d



C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15

<- Enter or change values here

Trial S_n: 0.083

<-- Change S_n value can be manual

Root-Mean-Square Error: 0.083

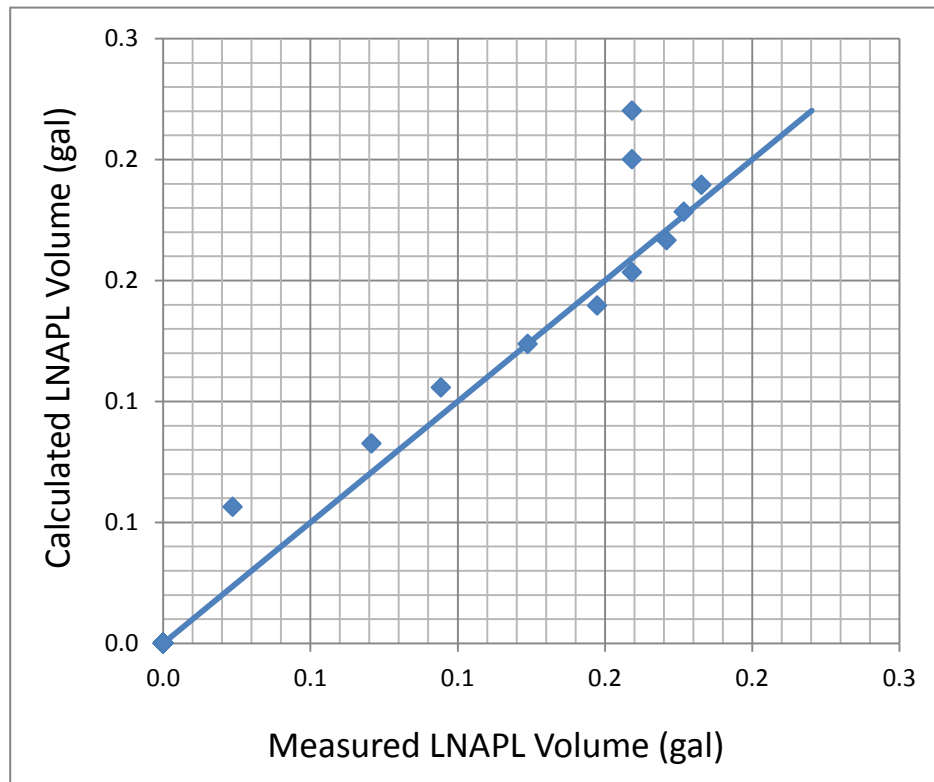
<-- Minimize this using "Solver"

Trial T_n (ft²/d): 0.270

<-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 0.27



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15
Initial Drawdown s _n (ft):	0.43

<- Enter or change values here

Trial S_n: 0.083

<- Adjust manually or through "Solver"

Root-Mean-Square Error: 0.288

<- Minimize this using "Solver"

Trial T_n (ft²/d): 1.472

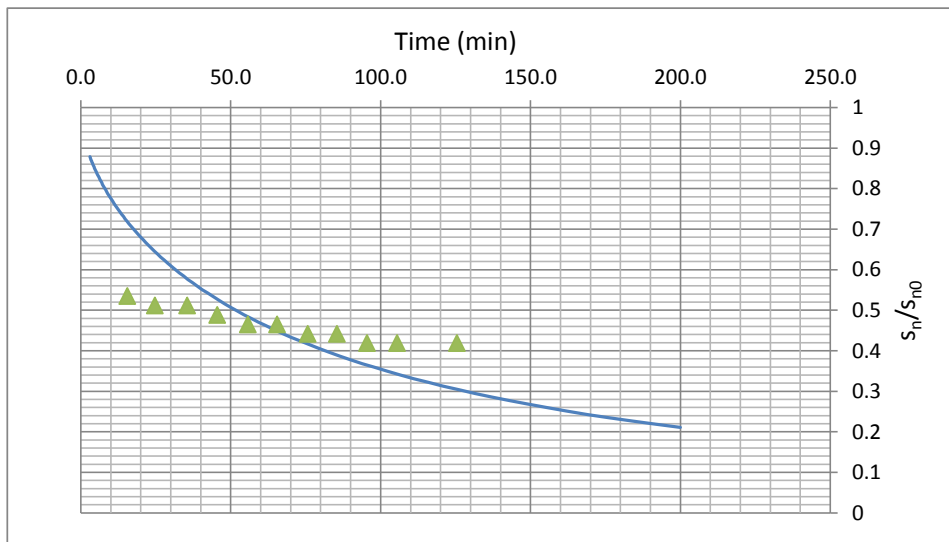
<- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 1.47

T _{min}	3
T _{max}	200

J-Ratio
-0.214



Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

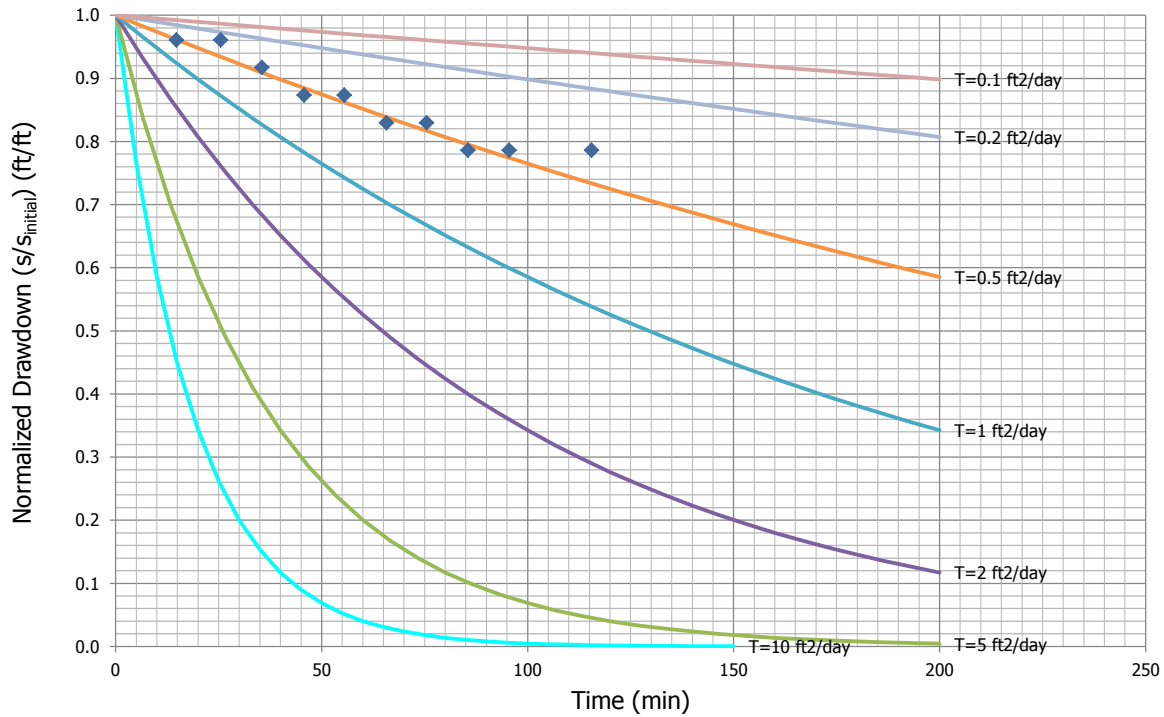
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.214	<-- If uncertain use
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



Well Designation:

GAL-33

Date:

8-Sep-14

Ground Surface Elev (ft msl)	16.49	Enter These Data	r_{e1}	Drawdown Adjustment (ft) -0.07
Top of Casing Elev (ft msl)	15.74			
Well Casing Radius, r_c (ft):	0.083			
Well Radius, r_w (ft):	0.333			
LNAPL Specific Yield, S_y :	0.175			
LNAPL Density Ratio, ρ_r :	0.900			
Top of Screen (ft bgs):	8.0			
Bottom of Screen (ft bgs):	28.0			
LNAPL Baildown Vol. (gal.):		Calculated Parameters		
Effective Radius, r_{e3} (ft):	0.158			
Effective Radius, r_{e2} (ft):	0.153			
Initial Casing LNAPL Vol. (gal.):	0.92			
Initial Filter LNAPL Vol. (gal.):	2.44			

Enter Data Here

Initial Fluid Levels:

Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)
0	12.97	18.67	13.72	19.42

Enter Test Data:

1.0	13.37	15.00	14.12	15.75
2.0	13.35	15.22	14.10	15.97
3.0	13.33	15.31	14.08	16.06
4.0	13.33	15.37	14.08	16.12
5.0	13.31	15.46	14.06	16.21
6.0	13.30	15.51	14.05	16.26
7.0	13.30	15.55	14.05	16.30
8.0	13.29	15.61	14.04	16.36
9.0	13.30	15.68	14.05	16.43
10.0	13.29	15.72	14.04	16.47
20.0	13.22	16.11	13.97	16.86
30.0	13.18	16.46	13.93	17.21
42.0	13.16	16.78	13.91	17.53
52.0	13.12	16.91	13.87	17.66
61.0	13.11	17.01	13.86	17.76
71.0	13.09	17.15	13.84	17.90
81.0	13.07	17.22	13.82	17.97
91.0	13.04	17.45	13.79	18.20
101.0	13.04	17.57	13.79	18.32
111.0	13.07	17.62	13.82	18.37
141.0	12.98	17.88	13.73	18.63
171.0	12.98	18.00	13.73	18.75
201.0	12.98	18.08	13.73	18.83

Figure 1

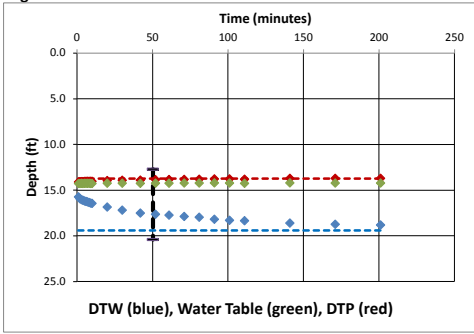


Figure 2

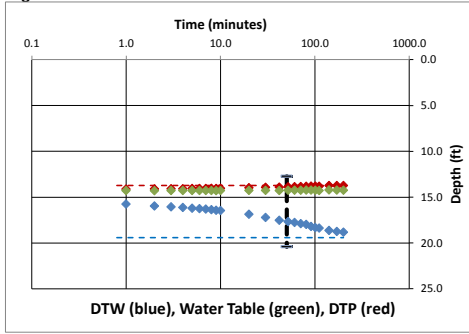


Figure 3

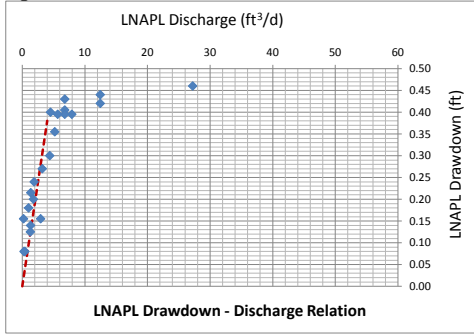


Figure 4

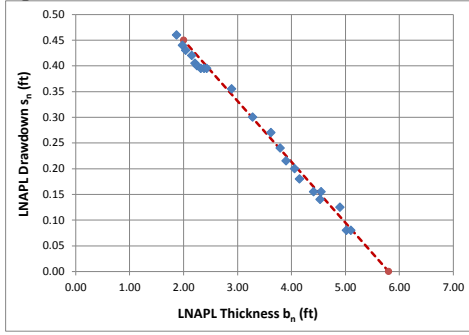


Figure 5

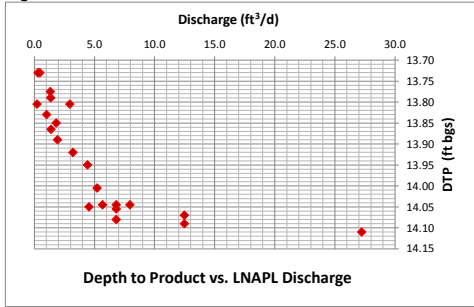


Figure 6

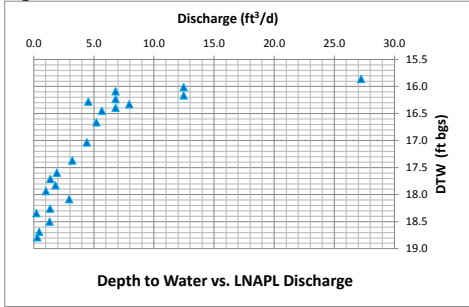


Figure 7

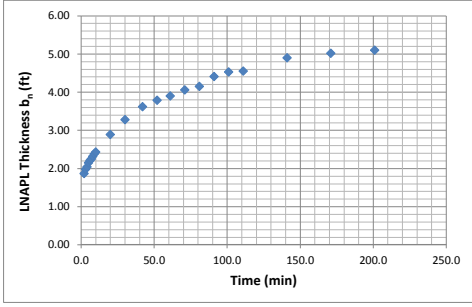


Figure 8

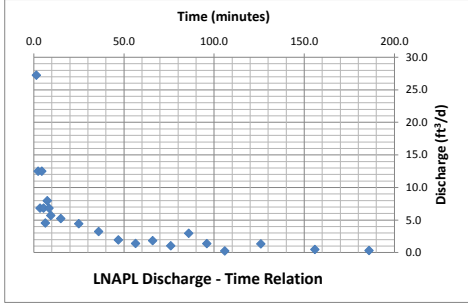


Figure 9

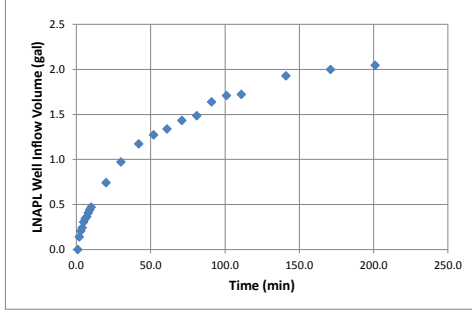
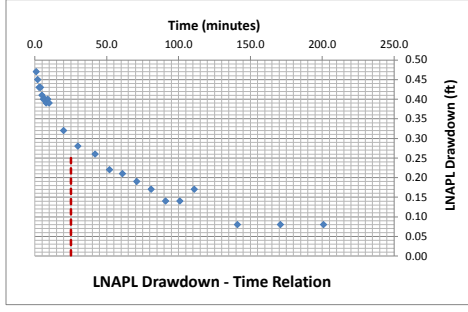


Figure 10



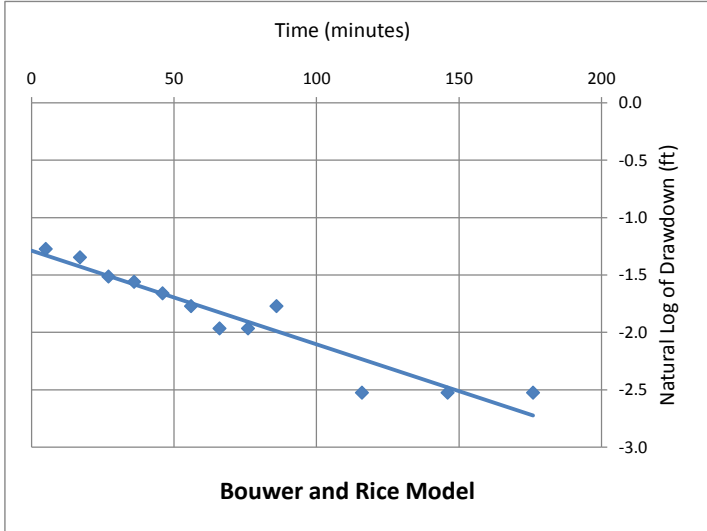
Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

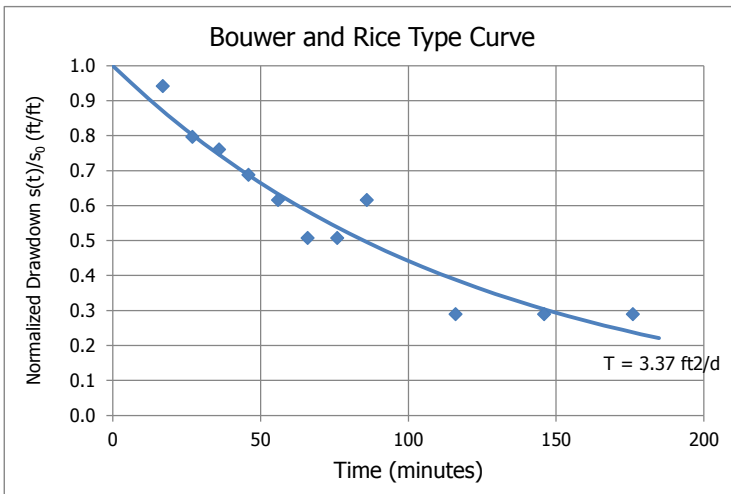
Enter early time cut-off for least-squares model fit

Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d



C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15

<- Enter or change values here

Trial S_n:

0.150

<-- Change S_n value can be manual

Root-Mean-Square Error:

0.112

<-- Minimize this using "Solver"

Trial T_n (ft²/d):

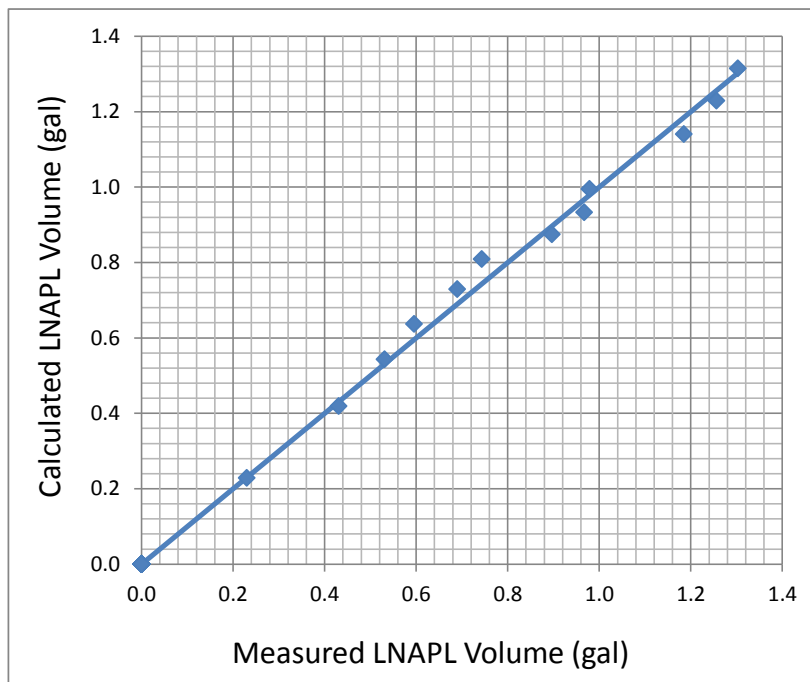
2.905

<-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result:

T_n (ft²/d) = 2.90



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25
Time Adjustment (min):	15
Initial Drawdown s _n (ft):	0.47

<- Enter or change values here

Trial S_n: 0.150

<- Adjust manually or through "Solver"

Root-Mean-Square Error: 0.119

<- Minimize this using "Solver"

Trial T_n (ft²/d): 3.224

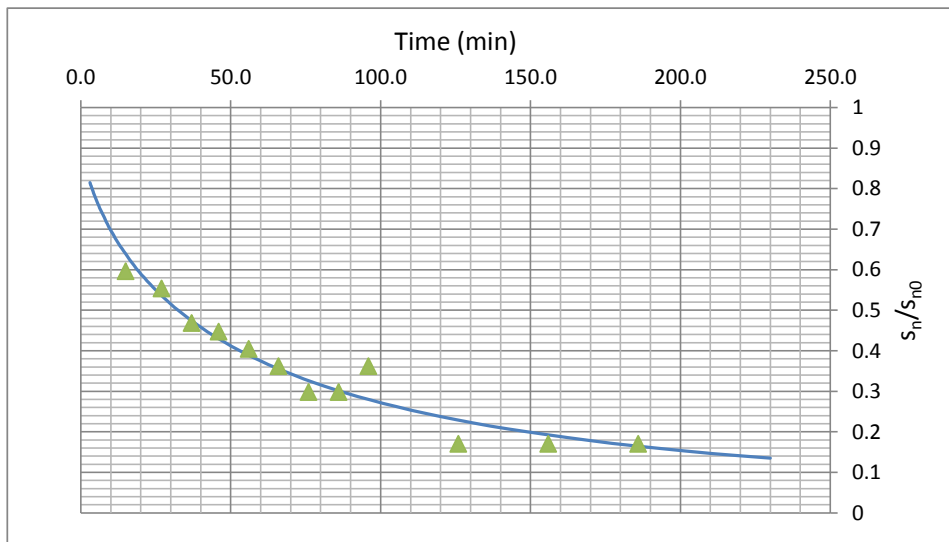
<- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 3.22

T _{min}	3
T _{max}	230

J-Ratio
-0.118



Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

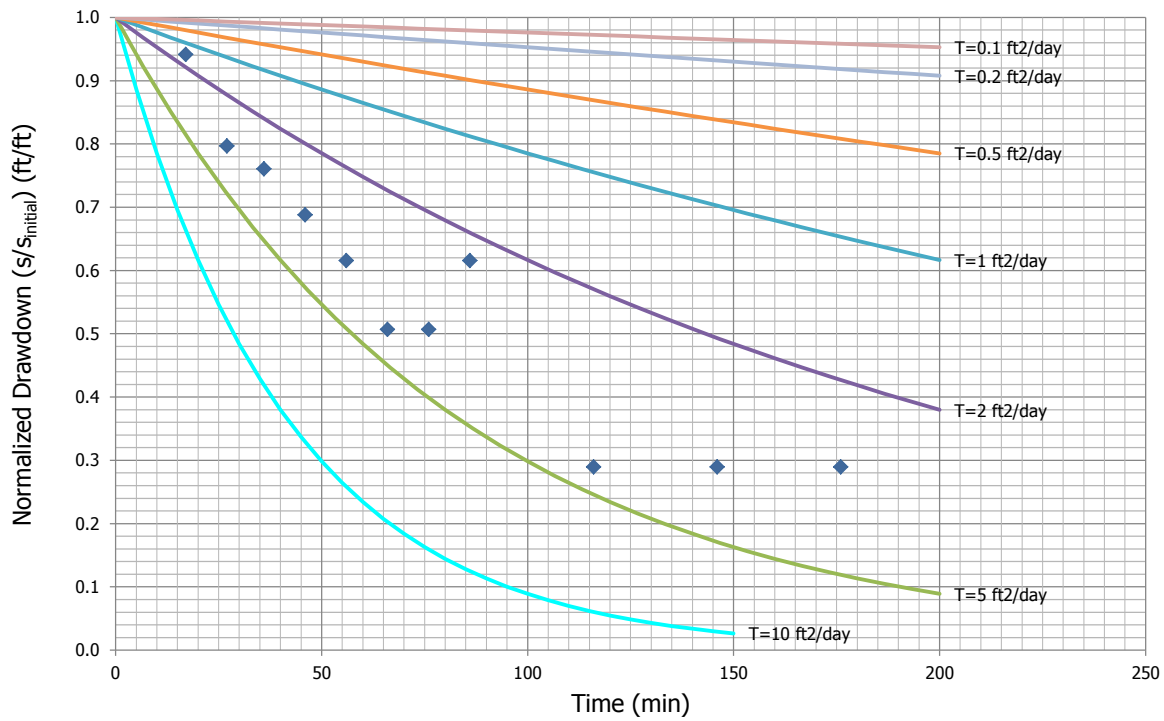
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.118	<-- If uncertain use
	-0.1

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



Well Designation:

GAL-35

Date:

8-Sep-14

Ground Surface Elev (ft msl)	16.57
Top of Casing Elev (ft msl)	16.00
Well Casing Radius, r_c (ft):	0.083
Well Radius, r_w (ft):	0.333
LNAPL Specific Yield, S_y :	0.175
LNAPL Density Ratio, ρ_r :	0.780
Top of Screen (ft bgs):	8.0
Bottom of Screen (ft bgs):	28.0
LNAPL Baildown Vol. (gal.):	
Effective Radius, r_{e3} (ft):	0.158
Effective Radius, r_{e2} (ft):	0.145
Initial Casing LNAPL Vol. (gal.):	0.93
Initial Filter LNAPL Vol. (gal.):	2.46

Enter These Data

r_{e1}

Drawdown Adjustment (ft)
0.08

Calculated Parameters

Enter Data Here				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)
0	13.28	19.03	13.85	19.6

Initial Fluid Levels:

Enter Test Data:

1.0	13.61	15.97	14.18	16.54
2.0	13.60	16.11	14.17	16.68
3.0	13.59	16.13	14.16	16.70
4.0	13.58	16.17	14.15	16.74
5.0	13.58	16.18	14.15	16.75
6.0	13.58	16.15	14.15	16.72
8.0	13.58	16.16	14.15	16.73
9.0	13.58	16.17	14.15	16.74
10.0	13.58	16.17	14.15	16.74
20.0	13.55	16.24	14.12	16.81
32.0	13.55	16.40	14.12	16.97
42.0	13.55	16.53	14.12	17.10
52.0	13.54	16.40	14.11	16.97
62.0	13.53	16.56	14.10	17.13
72.0	13.52	16.38	14.09	16.95
82.0	13.51	16.53	14.08	17.10
92.0	13.51	16.55	14.08	17.12
122.0	13.45	16.89	14.02	17.46
155.0	13.45	17.14	14.02	17.71
185.0	13.4	17.27	13.97	17.84
215.0	13.38	17.27	13.95	17.84
252.0	13.37	17.26	13.94	17.83

Figure 1

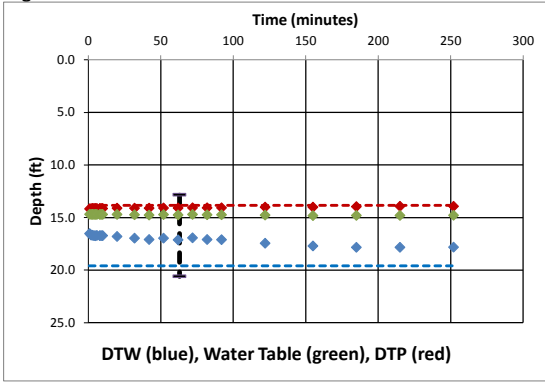


Figure 2

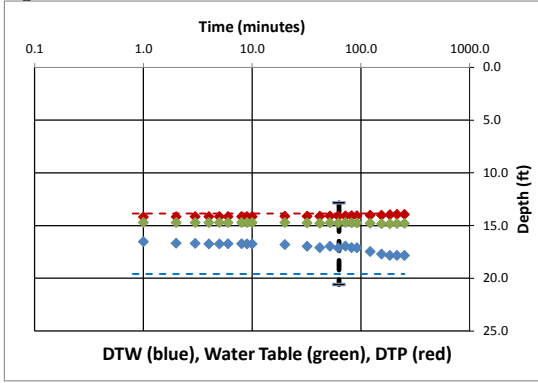


Figure 3

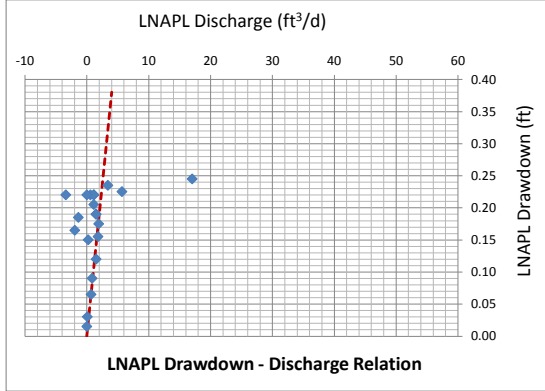


Figure 4

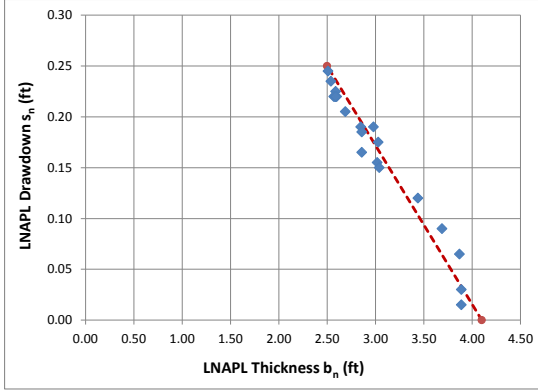


Figure 5

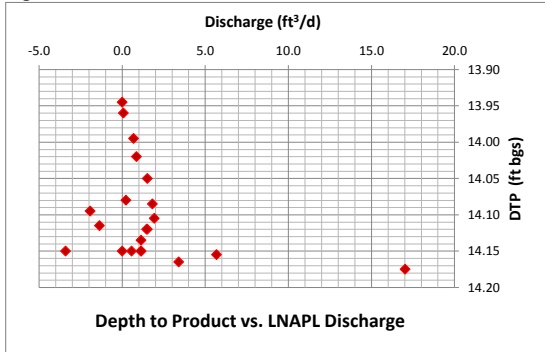


Figure 6

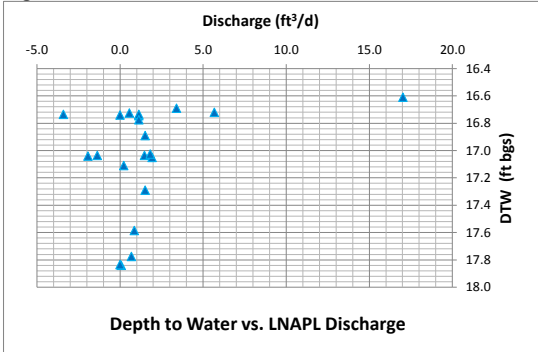


Figure 7

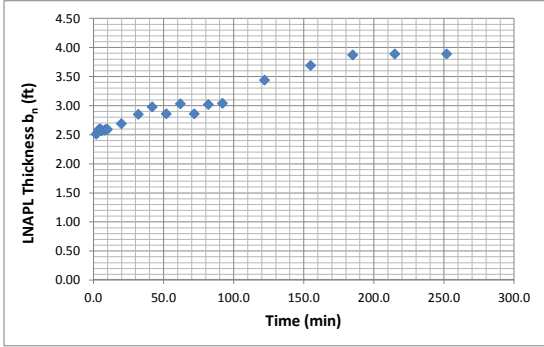


Figure 8

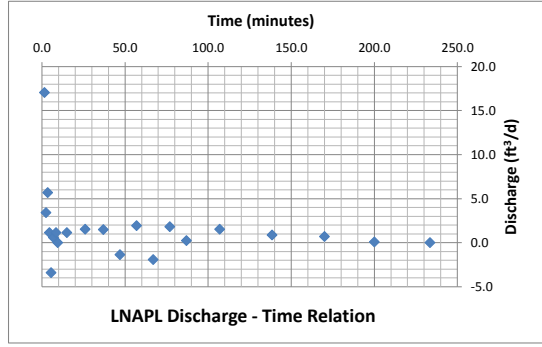


Figure 9

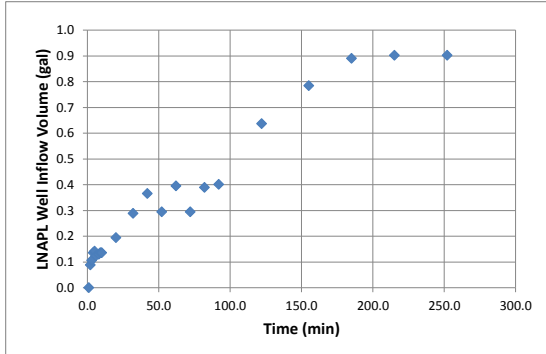
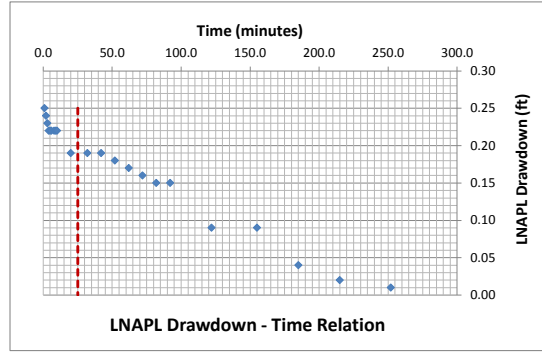


Figure 10



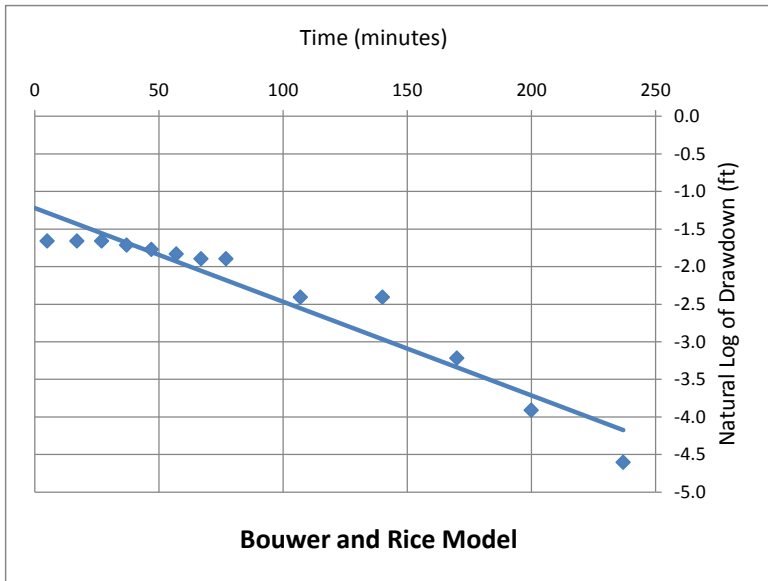
Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

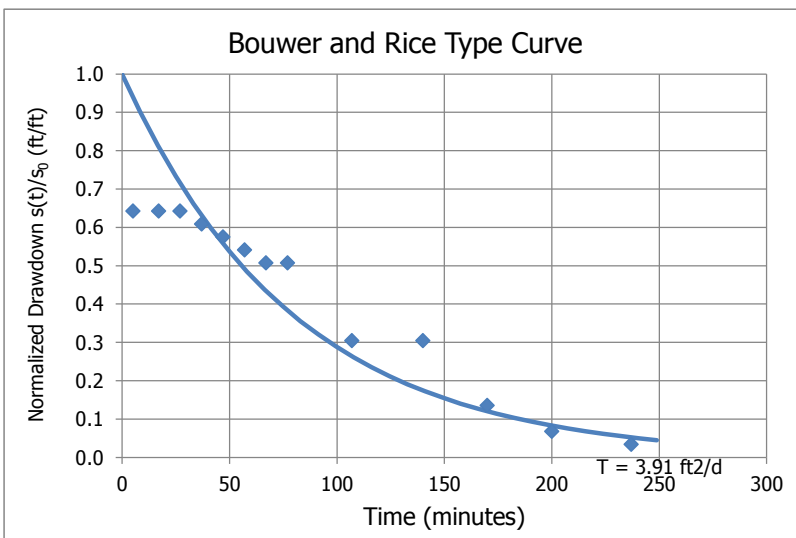
Enter early time cut-off for least-squares model fit

Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d



C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	15
Time Adjustment (min):	10

<- Enter or change values here

Trial S_n:

0.010

<-- Change S_n value can be manual

Root-Mean-Square Error:

0.376

<-- Minimize this using "Solver"

Trial T_n (ft²/d):

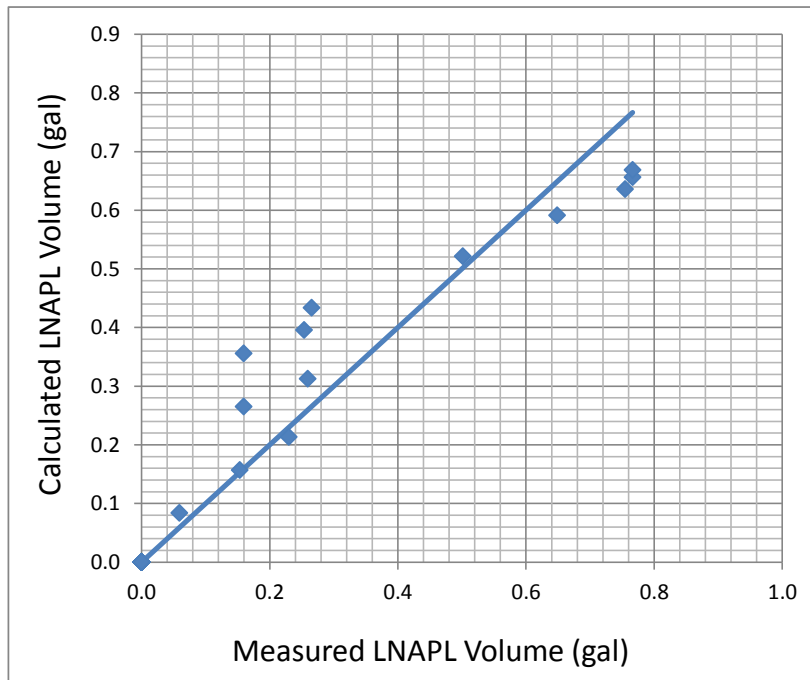
2.779

<-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result:

T_n (ft²/d) = 2.78



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	15
Time Adjustment (min):	10
Initial Drawdown s _n (ft):	0.25

<- Enter or change values here

Trial S_n: 0.010

<-- Adjust manually or through "Solver"

Root-Mean-Square Error: 0.358

<-- Minimize this using "Solver"

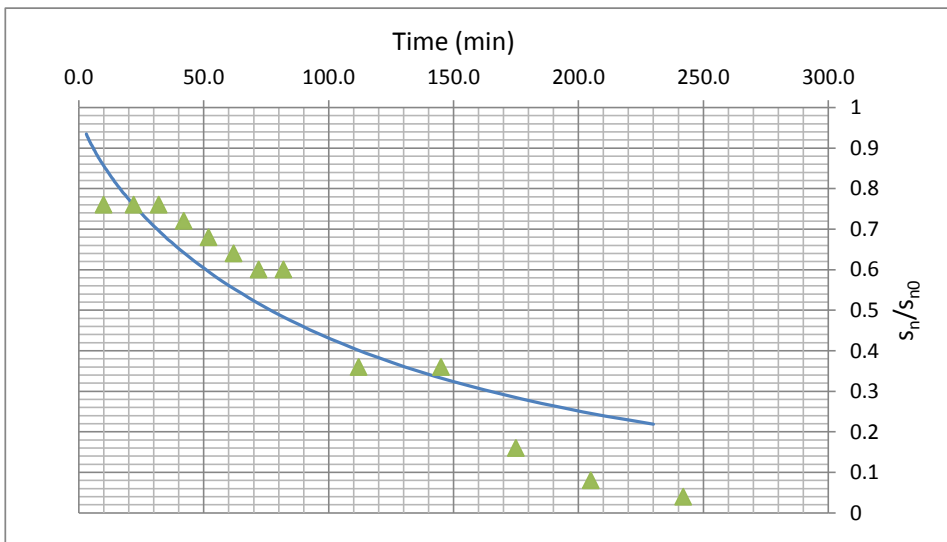
Trial T_n (ft²/d): 2.577

<-- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 2.58

T _{min}	3
T _{max}	230



J-Ratio
-0.156

Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

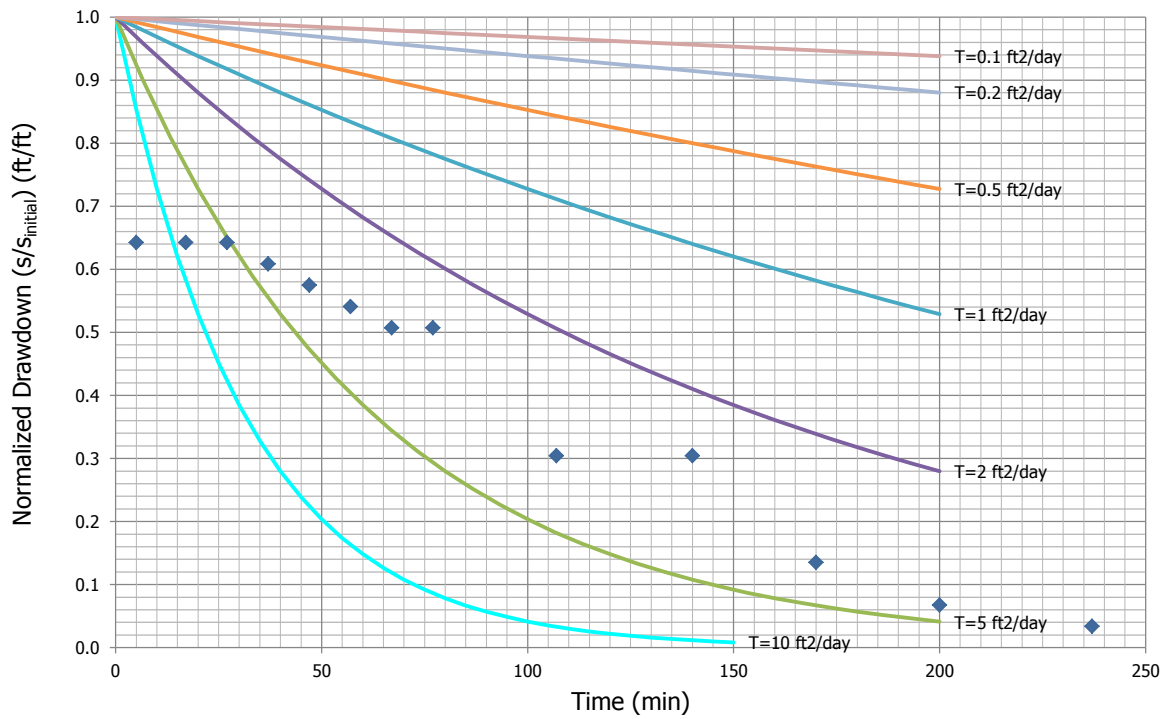
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.156	<-- If uncertain use
	-0.22

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



Well Designation: GAL-36
 Date: 5-Sep-14

Ground Surface Elev (ft msl)	16.65	Enter These Data	r_{e1}	Drawdown Adjustment (ft)	0.0008
Top of Casing Elev (ft msl)	16.28				
Well Casing Radius, r_c (ft):	0.083				
Well Radius, r_w (ft):	0.333				
LNAPL Specific Yield, S_y :	0.175				
LNAPL Density Ratio, ρ_l :	0.890				
Top of Screen (ft bgs):	8.0				
Bottom of Screen (ft bgs):	28.0	Calculated Parameters			
LNAPL Baildown Vol. (gal.):					
Effective Radius, r_{e2} (ft):	0.158				
Effective Radius, r_{e3} (ft):	0.152				
Initial Casing LNAPL Vol. (gal.):	0.79				
Initial Filter LNAPL Vol. (gal.):	2.09				

Enter Data Here					Water Table	LNAPL	LNAPL				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Depth (ft)	Drawdown s_n (ft)	Average Time (min)	Discharge Q_n (ft ³ /d)	s_n (ft)	b_n (ft)	r_e (ft)
Initial Fluid Levels:	0	13.42	18.3	13.79	18.67	14.33				4.88	
Enter Test Data:	1.0	13.70	15.84	14.07	16.21	14.31	0.28				
	2.0	13.68	16.03	14.05	16.40	14.31	0.26	1.5	23.835	0.27	2.35
	3.0	13.65	16.20	14.02	16.57	14.30	0.23	2.5	22.700	0.24	2.55
	4.0	13.64	16.36	14.01	16.73	14.31	0.22	3.5	19.295	0.22	2.72
	5.0	13.63	16.45	14.00	16.82	14.31	0.21	4.5	11.350	0.21	2.82
	6.0	13.62	16.51	13.99	16.88	14.31	0.20	5.5	7.945	0.20	2.89
	7.0	13.61	16.63	13.98	17.00	14.31	0.19	6.5	14.755	0.19	3.02
	8.0	13.60	16.58	13.97	16.95	14.30	0.18	7.5	-4.540	0.18	2.98
	9.0	13.59	16.78	13.96	17.15	14.31	0.17	8.5	23.835	0.17	3.19
	10.0	13.58	16.86	13.95	17.23	14.31	0.16	9.5	10.215	0.16	3.28
	20.0	13.52	17.23	13.89	17.60	14.30	0.10	15.0	4.880	0.13	3.71
	30.0	13.49	17.48	13.86	17.85	14.30	0.07	25.0	3.178	0.08	3.99
	40.0	13.48	17.68	13.85	18.05	14.31	0.06	35.0	2.383	0.06	4.20
	50.0	13.47	17.74	13.84	18.11	14.31	0.05	45.0	0.794	0.05	4.27
	60.0	13.46	17.76	13.83	18.13	14.30	0.04	55.0	0.340	0.04	4.30
	90.0	13.45	17.81	13.82	18.18	14.30	0.03	75.0	0.227	0.03	4.36
	120.0	13.45	17.87	13.82	18.24	14.31	0.03	105.0	0.227	0.03	4.42
	167.0	13.43	17.85	13.80	18.22	14.29	0.01	143.5	0.000	0.02	4.42

Figure 1

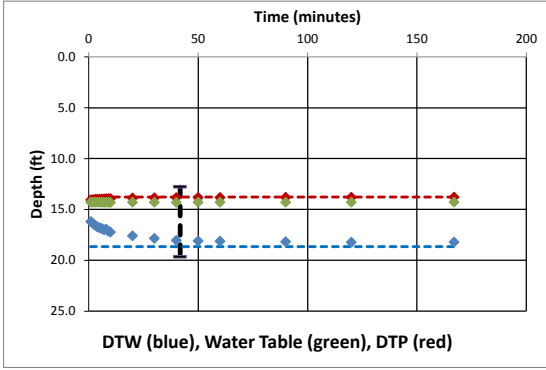


Figure 2

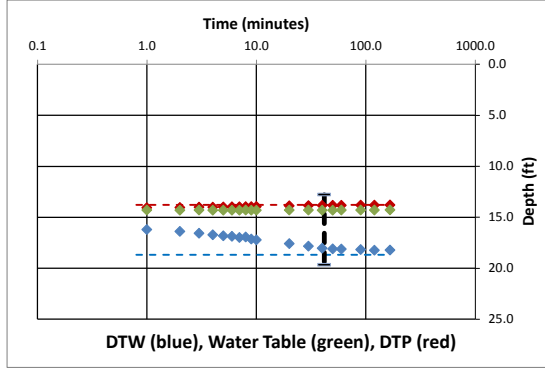


Figure 3

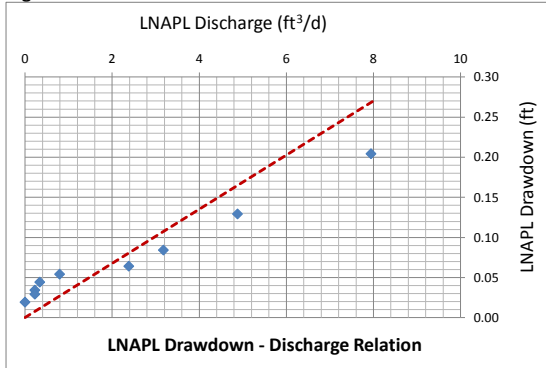


Figure 4

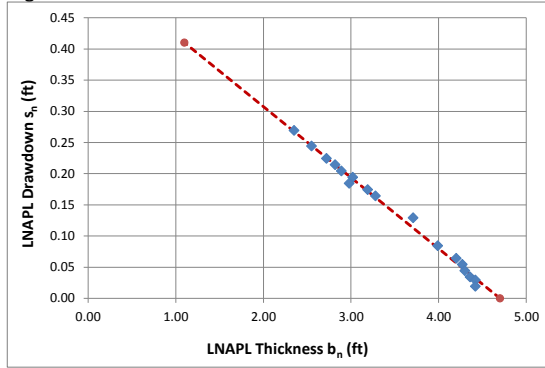


Figure 5

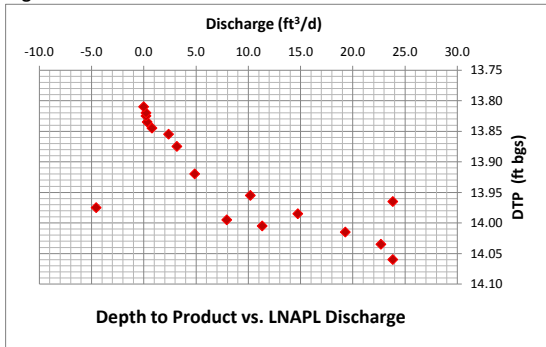


Figure 6

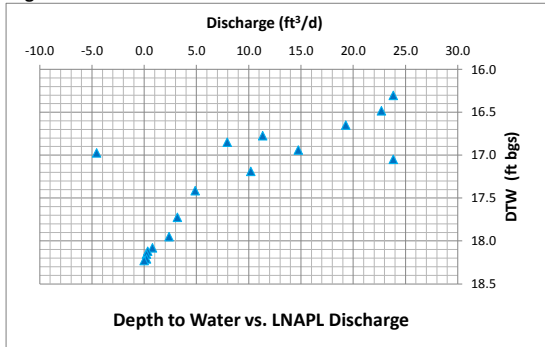


Figure 7

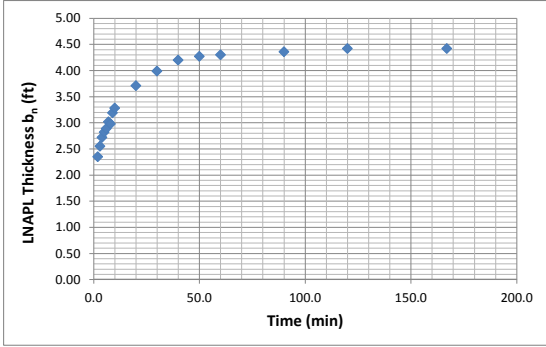


Figure 8

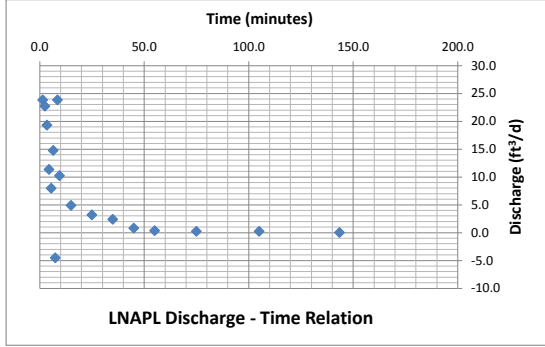


Figure 9

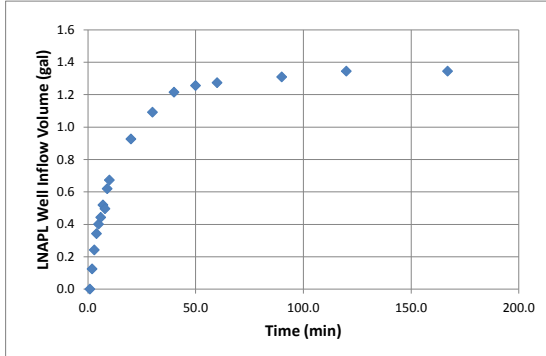
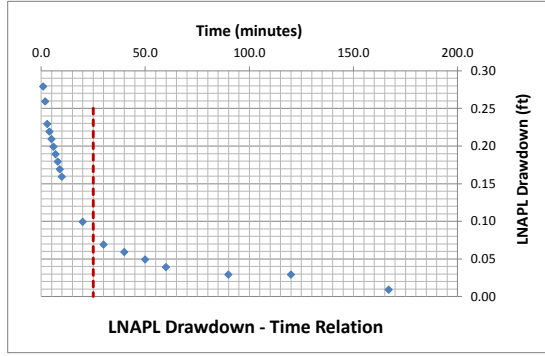


Figure 10



Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

Enter early time cut-off for least-squares model fit

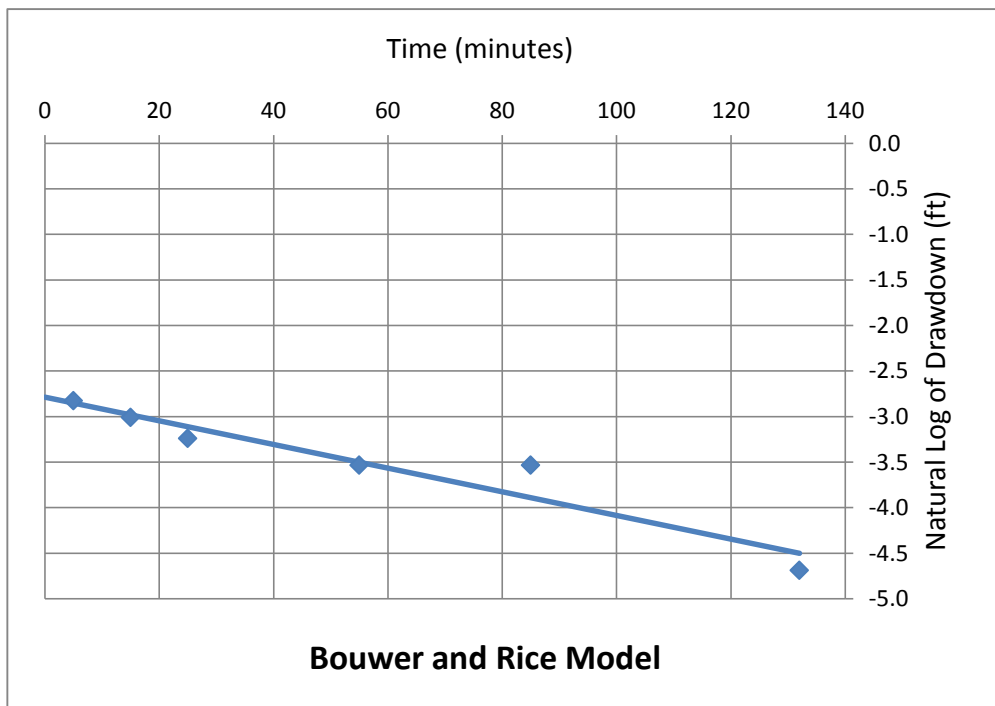
Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d

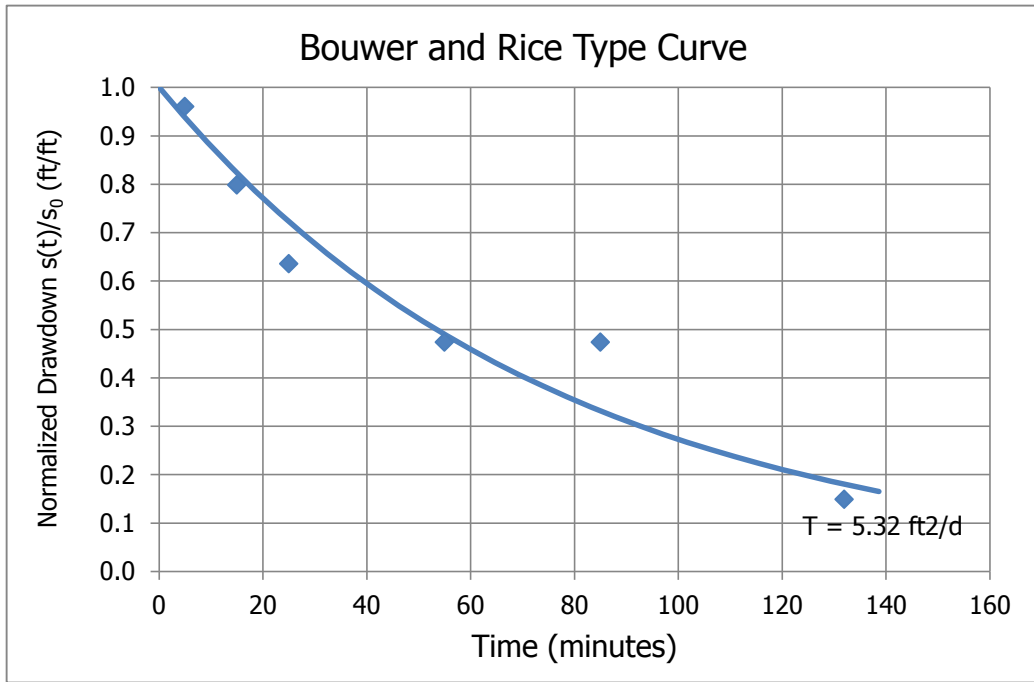
L_e/r_e	30.8
C	2.02
R/r_e	13.29

J-Ratio	-0.114
---------	--------

Coef. Of Variation	0.15
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C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	35	<- Enter or change values here
Time Adjustment (min):	15	

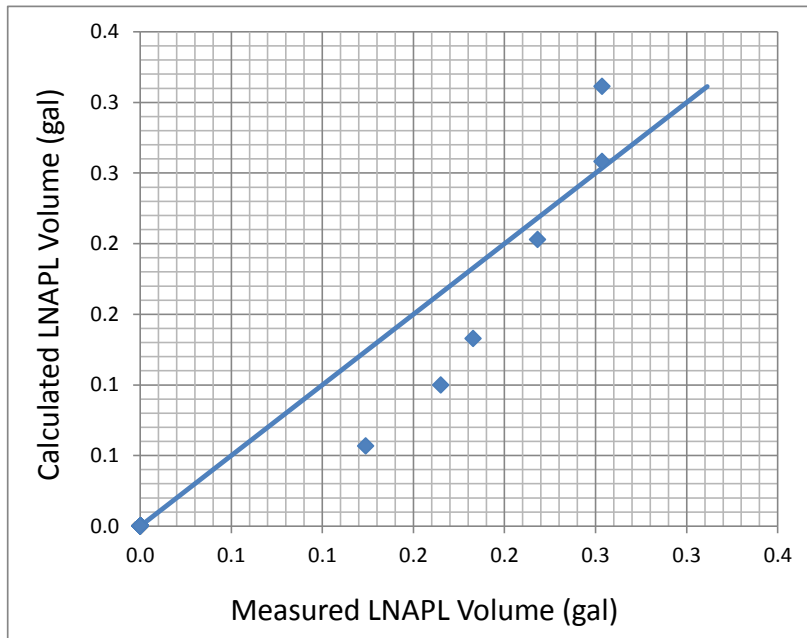
Trial S_n: 0.150 <-- Change S_n value can be manual

Root-Mean-Square Error: 0.122 <-- Minimize this using "Solver"

Trial T_n (ft²/d): 5.058 <-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 5.06



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	35	<- Enter or change values here
Time Adjustment (min):	20	
Initial Drawdown s _n (ft):	0.28	

Trial S_n: 0.000 <- Adjust manually or through "Solver"

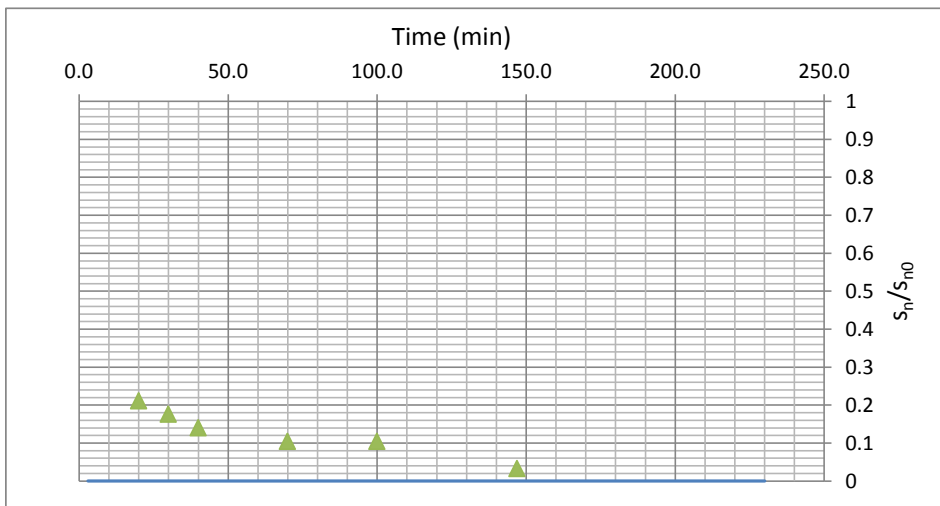
Root-Mean-Square Error: #VALUE! <- Minimize this using "Solver"

Trial T_n (ft²/d): 20.091 <- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 20.09

T _{min}	3
T _{max}	230



J-Ratio
-0.114

Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

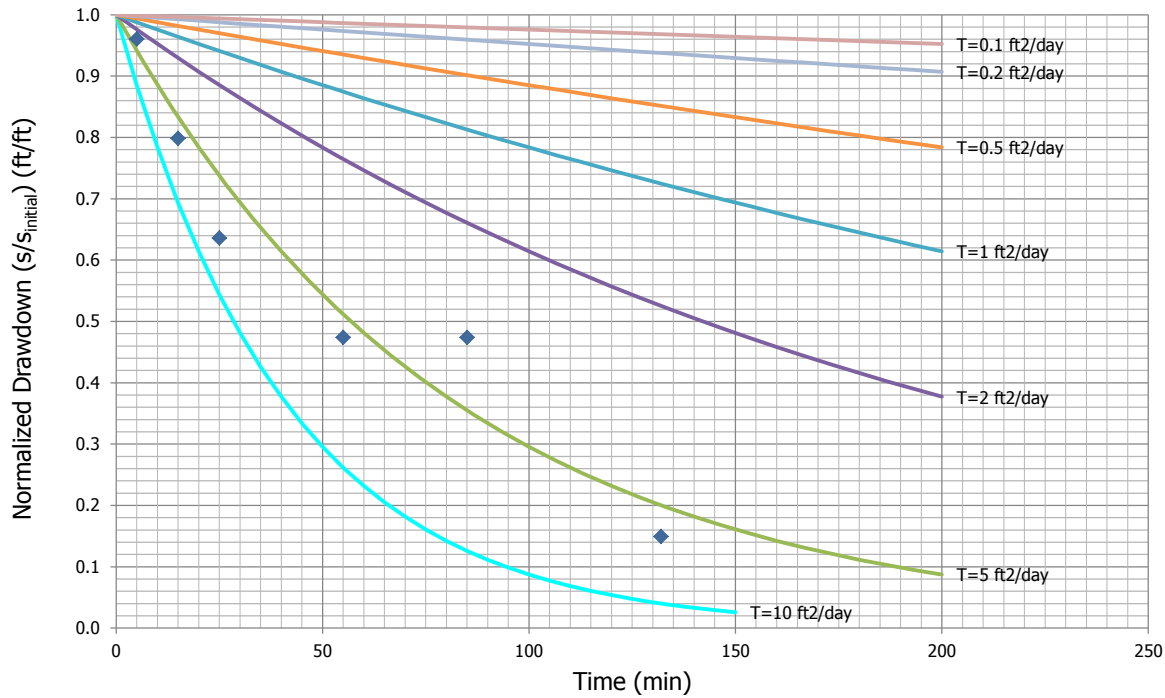
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	<-- If uncertain use
-0.114	
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



Well Designation: GAL-37
 Date: 4-Sep-14

Ground Surface Elev (ft msl)	16.6	Enter These Data	r_{e1}	Drawdown Adjustment (ft)	0.08
Top of Casing Elev (ft msl)	16.2				
Well Casing Radius, r_c (ft):	0.083				
Well Radius, r_w (ft):	0.333				
LNAPL Specific Yield, S_y :	0.175				
LNAPL Density Ratio, ρ_l :	0.890				
Top of Screen (ft bgs):	8.0				
Bottom of Screen (ft bgs):	28.0	Calculated Parameters			
LNAPL Baildown Vol. (gal.):					
Effective Radius, r_{e2} (ft):	0.158				
Effective Radius, r_{e3} (ft):	0.152				
Initial Casing LNAPL Vol. (gal.):	0.47				
Initial Filter LNAPL Vol. (gal.):	1.24				

Enter Data Here					Water Table	LNAPL	LNAPL				
Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Depth (ft)	Drawdown s_n (ft)	Average Time (min)	Discharge Q_n (ft ³ /d)	s_n (ft)	b_n (ft)	r_e (ft)
Initial Fluid Levels:	0	13.42	16.33	13.76	14.08					2.91	
Enter Test Data:	0.5	13.65	14.36	13.99	14.70	14.07	0.15				
	1.0	13.64	14.13	13.98	14.47	14.03	0.14	0.8	-49.940	0.15	0.49
	2.0	13.62	14.58	13.96	14.92	14.07	0.12	1.5	53.345	0.13	0.96
	3.0	13.62	14.50	13.96	14.84	14.06	0.12	2.5	-9.080	0.12	0.88
	4.0	13.60	14.61	13.94	14.95	14.05	0.10	3.5	14.755	0.11	1.01
	5.0	13.59	14.65	13.93	14.99	14.05	0.09	4.5	5.675	0.10	1.06
	6.0	13.58	14.67	13.92	15.01	14.04	0.08	5.5	3.405	0.09	1.09
	7.0	13.58	14.82	13.92	15.16	14.06	0.08	6.5	17.025	0.08	1.24
	8.0	13.58	14.73	13.92	15.07	14.05	0.08	7.5	-10.215	0.08	1.15
	9.0	13.57	14.73	13.91	15.07	14.04	0.07	8.5	1.135	0.08	1.16
	10.0	13.57	14.78	13.91	15.12	14.04	0.07	9.5	5.675	0.07	1.21
	11.0	13.57	14.78	13.91	15.12	14.04	0.07	10.5	0.000	0.07	1.21
	21.0	13.54	14.88	13.88	15.22	14.03	0.04	16.0	1.475	0.06	1.34
	31.0	13.53	15.24	13.87	15.58	14.06	0.03	26.0	4.199	0.04	1.71
	41.0	13.52	15.08	13.86	15.42	14.03	0.02	36.0	-1.702	0.03	1.56
	51.0	13.51	15.26	13.85	15.60	14.04	0.01	46.0	2.156	0.02	1.75
	61.0	13.51	15.25	13.85	15.59	14.04	0.01	56.0	-0.113	0.01	1.74

Figure 1

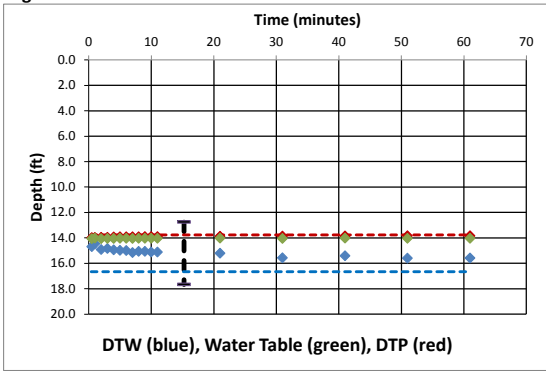


Figure 2

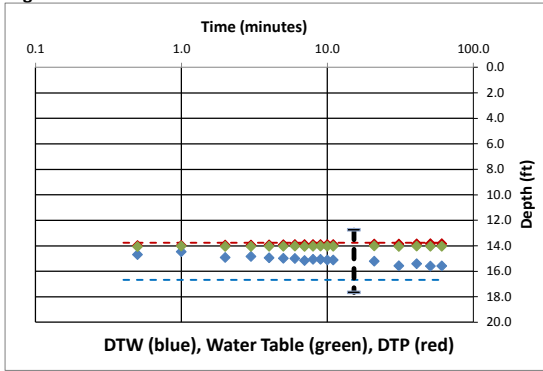


Figure 3

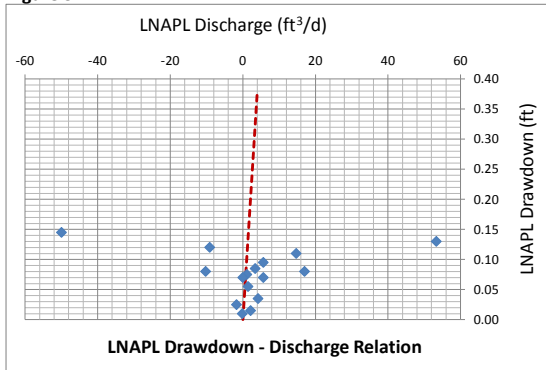


Figure 4

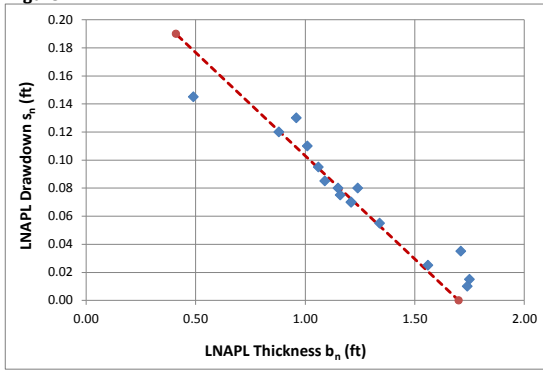


Figure 5

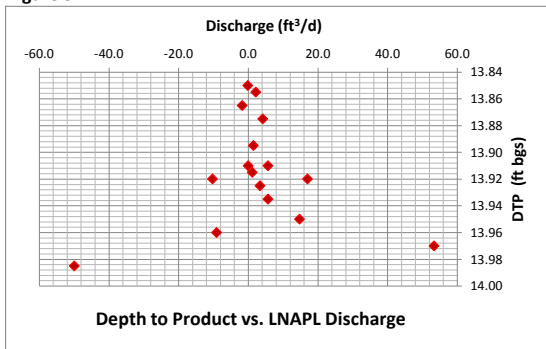


Figure 6

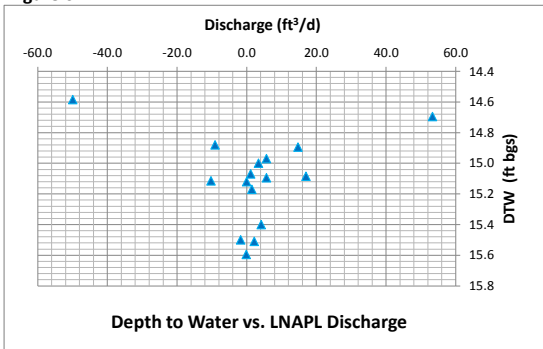


Figure 7

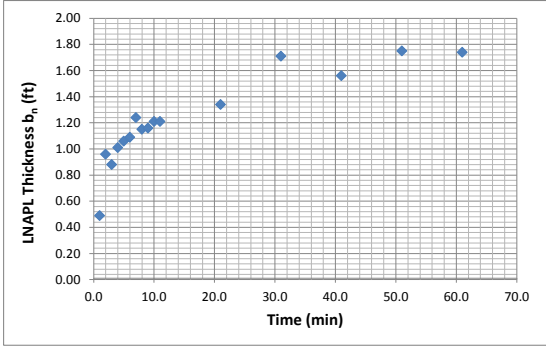


Figure 8

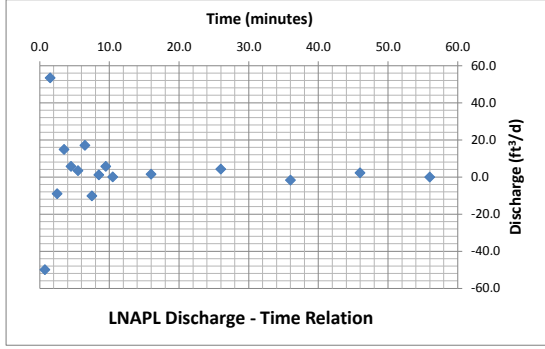


Figure 9

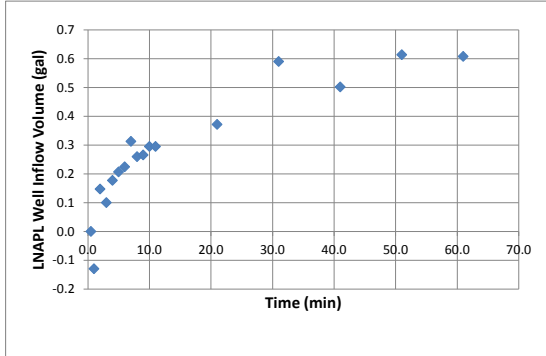
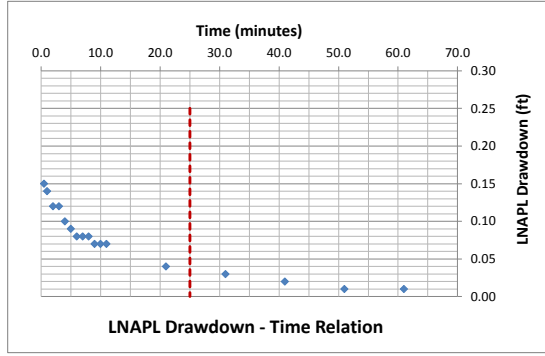


Figure 10



Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t - t_1)}$$

Enter early time cut-off for least-squares model fit

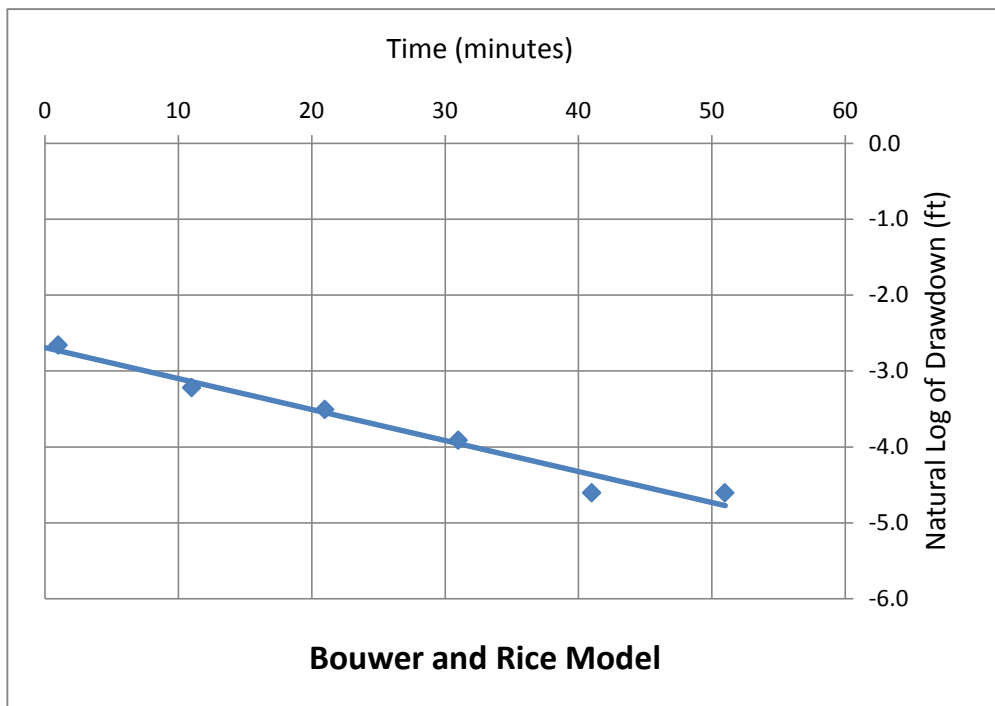
Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d

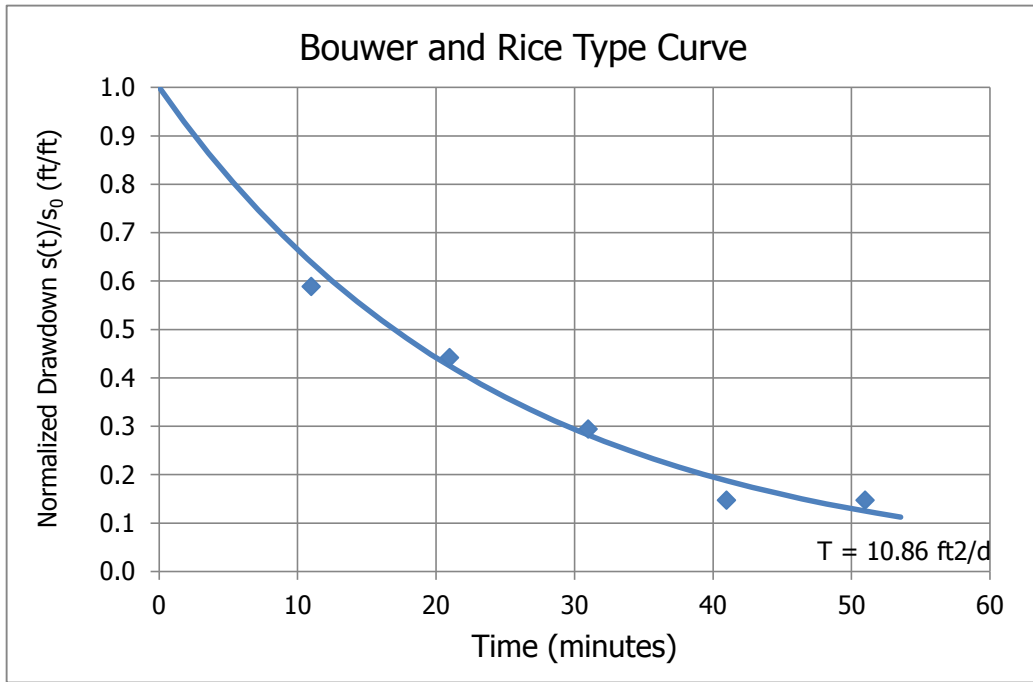
L_e/r_e	18.4
C	1.53
R/r_e	8.75

J-Ratio	-0.147
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Coef. Of Variation	0.09
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C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	10	<- Enter or change values here
Time Adjustment (min):	7	

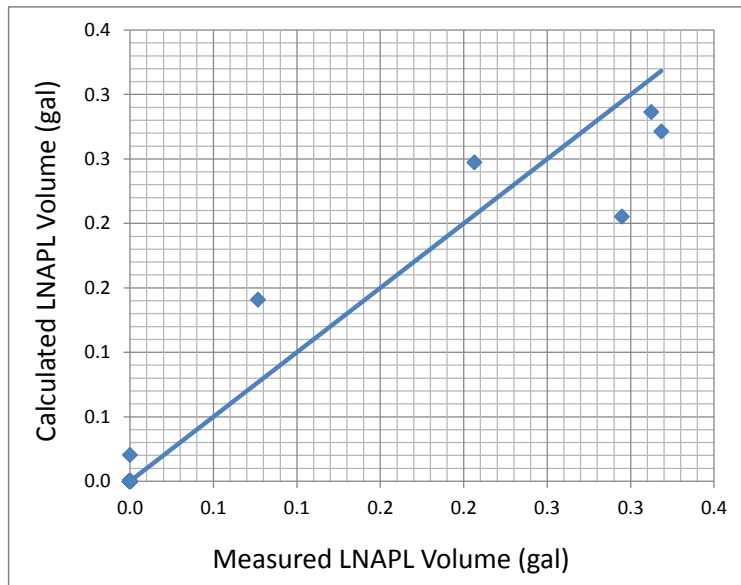
Trial S_n: 0.150 <- Change S_n value can be manual

Root-Mean-Square Error: 0.131 <- Minimize this using "Solver"

Trial T_n (ft²/d): 13.054 <- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 13.05



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	10	<- Enter or change values here
Time Adjustment (min):	7	
Initial Drawdown s _n (ft):	0.15	

Trial S_n: 0.150 <- Adjust manually or through "Solver"

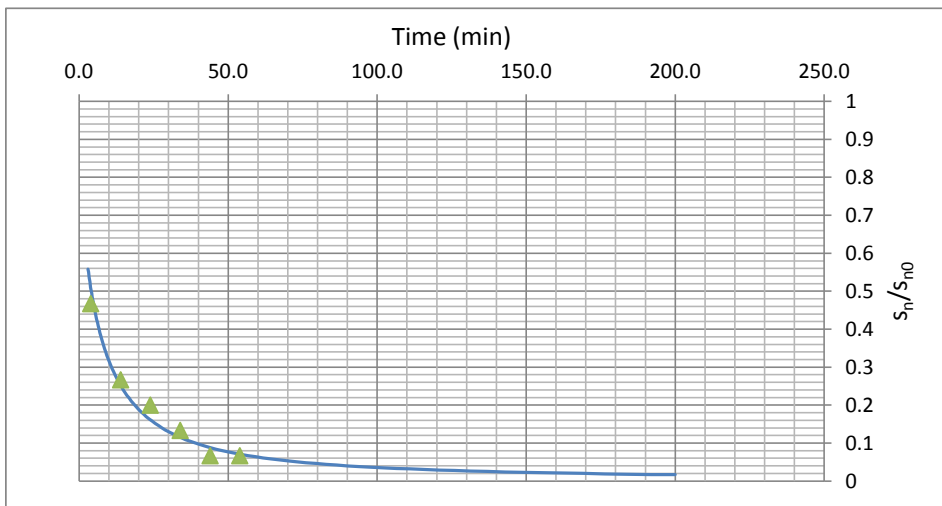
Root-Mean-Square Error: 0.063 <- Minimize this using "Solver"

Trial T_n (ft²/d): 20.663 <- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 20.66

T _{min}	3
T _{max}	200



J-Ratio
-0.147

Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

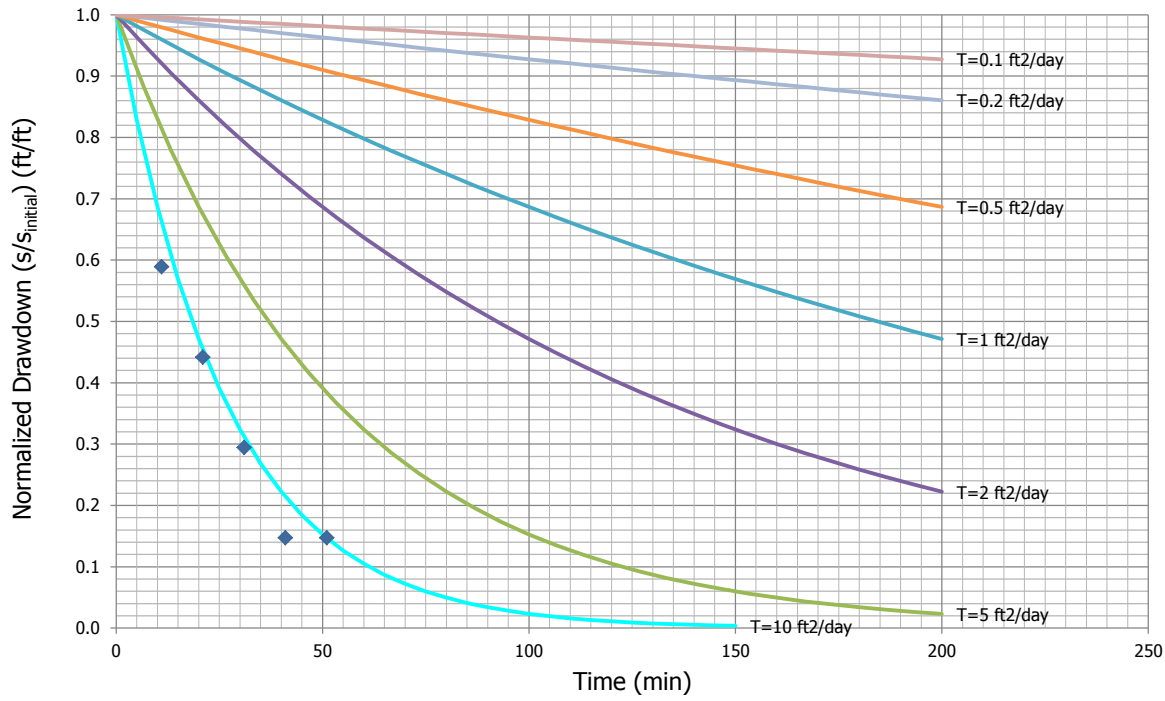
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	
-0.147	<-- If uncertain use
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



Well Designation: MW-8
 Date: 5-Sep-14

Ground Surface Elev (ft msl)	17.2	Enter These Data	r_{e1}	Drawdown Adjustment (ft) -0.04
Top of Casing Elev (ft msl)	16.96			
Well Casing Radius, r_c (ft):	0.083			
Well Radius, r_w (ft):	0.333			
LNAPL Specific Yield, S_y :	0.175			
LNAPL Density Ratio, ρ_r :	0.890			
Top of Screen (ft bgs):	9.0			
Bottom of Screen (ft bgs):	24.0			
LNAPL Baildown Vol. (gal.):		Calculated Parameters		
Effective Radius, r_{e3} (ft):	0.158			
Effective Radius, r_{e2} (ft):	0.152			
Initial Casing LNAPL Vol. (gal.):	0.95			
Initial Filter LNAPL Vol. (gal.):	2.51			

	Enter Data Here					Water Table	LNAPL	LNAPL				
	Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Depth (ft)	Drawdown s_n (ft)	Average Time (min)	Discharge Q_n (ft ³ /d)	s_n (ft)	b_n (ft)	r_e (ft)
Initial Fluid Levels:	0	14.04	19.92	14.25	20.13	14.90					5.88	
Enter Test Data:	1.0	14.45	15.53	14.66	15.74	14.78	0.45					
	2.0	14.42	15.62	14.63	15.83	14.76	0.42	1.5	13.620	0.44	1.20	0.158
	3.0	14.42	15.73	14.63	15.94	14.77	0.42	2.5	12.485	0.42	1.31	0.158
	4.0	14.41	15.83	14.62	16.04	14.78	0.41	3.5	12.485	0.42	1.42	0.158
	5.0	14.40	15.92	14.61	16.13	14.78	0.40	4.5	11.350	0.41	1.52	0.158
	6.0	14.39	16.02	14.60	16.23	14.78	0.39	5.5	12.485	0.40	1.63	0.158
	7.0	14.38	16.11	14.59	16.32	14.78	0.38	6.5	11.350	0.39	1.73	0.158
	8.0	14.37	16.22	14.58	16.43	14.78	0.37	7.5	13.620	0.38	1.85	0.158
	9.0	14.36	16.29	14.57	16.50	14.78	0.36	8.5	9.080	0.36	1.93	0.158
	10.0	14.37	16.37	14.58	16.58	14.80	0.37	9.5	7.945	0.36	2.00	0.158
	20.0	14.27	17.11	14.48	17.32	14.79	0.27	15.0	9.534	0.32	2.84	0.158
	30.0	14.22	17.64	14.43	17.85	14.81	0.22	25.0	6.583	0.25	3.42	0.158
	40.0	14.18	18.12	14.39	18.33	14.82	0.18	35.0	5.902	0.20	3.94	0.158
	50.0	14.14	18.32	14.35	18.53	14.81	0.14	45.0	2.724	0.16	4.18	0.158
	60.0	14.12	18.52	14.33	18.73	14.81	0.12	55.0	2.497	0.13	4.40	0.158
	70.0	14.1	18.67	14.31	18.88	14.81	0.10	65.0	1.929	0.11	4.57	0.158
	90.0	14.08	18.93	14.29	19.14	14.82	0.08	80.0	1.589	0.09	4.85	0.158
	120.0	14.11	19.12	14.32	19.33	14.87	0.11	105.0	0.605	0.09	5.01	0.158
	180.0	14.08	19.17	14.29	19.38	14.85	0.08	150.0	0.151	0.09	5.09	0.158

Figure 1

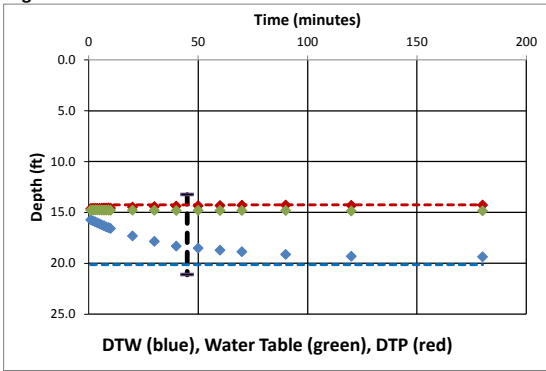


Figure 2

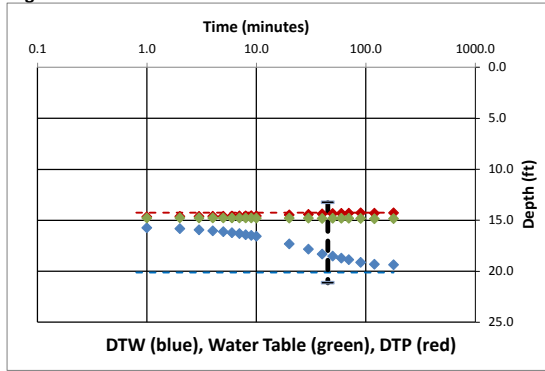


Figure 3

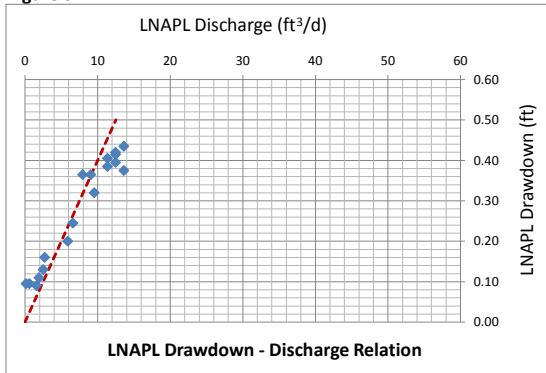


Figure 4

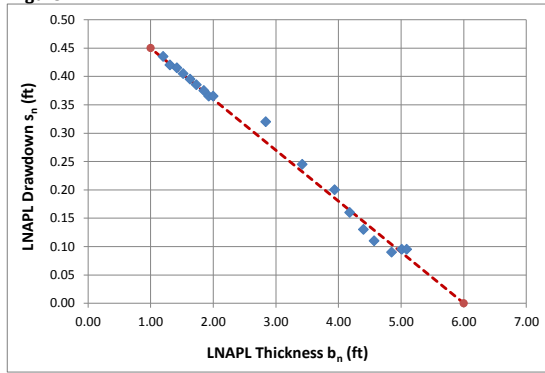


Figure 5

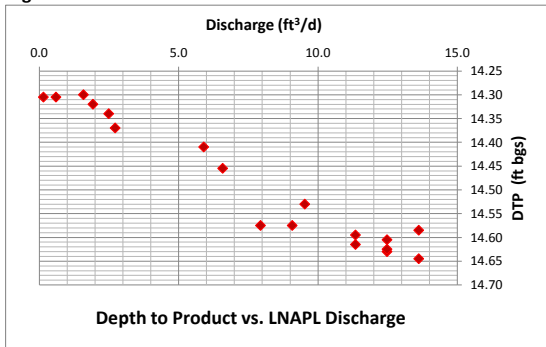


Figure 6

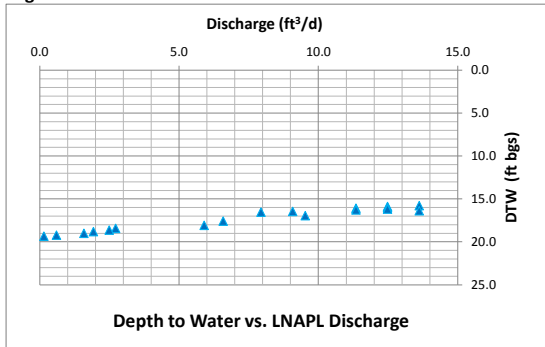


Figure 7

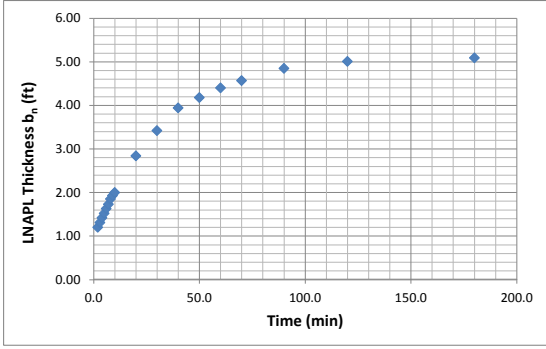


Figure 8

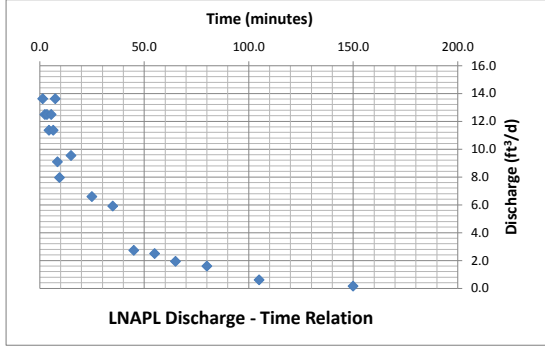


Figure 9

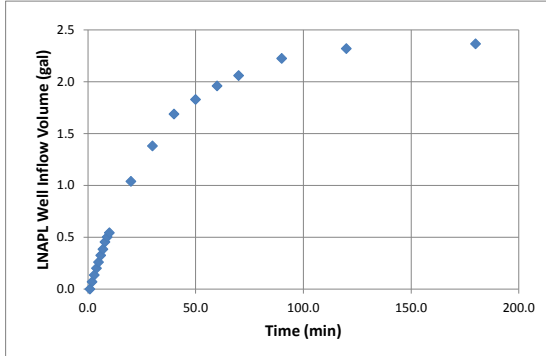
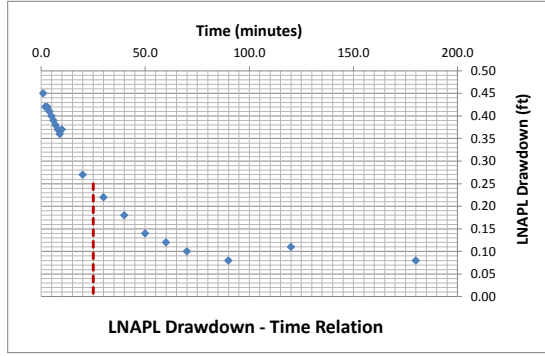


Figure 10



Generalized Bouwer and Rice (1976)

$$T_n = \frac{r_e^2 \ln(R/r_e) \ln(s_n(t_1)/s_n(t))}{2(-J)(t - t_1)}$$

Enter early time cut-off for least-squares model fit

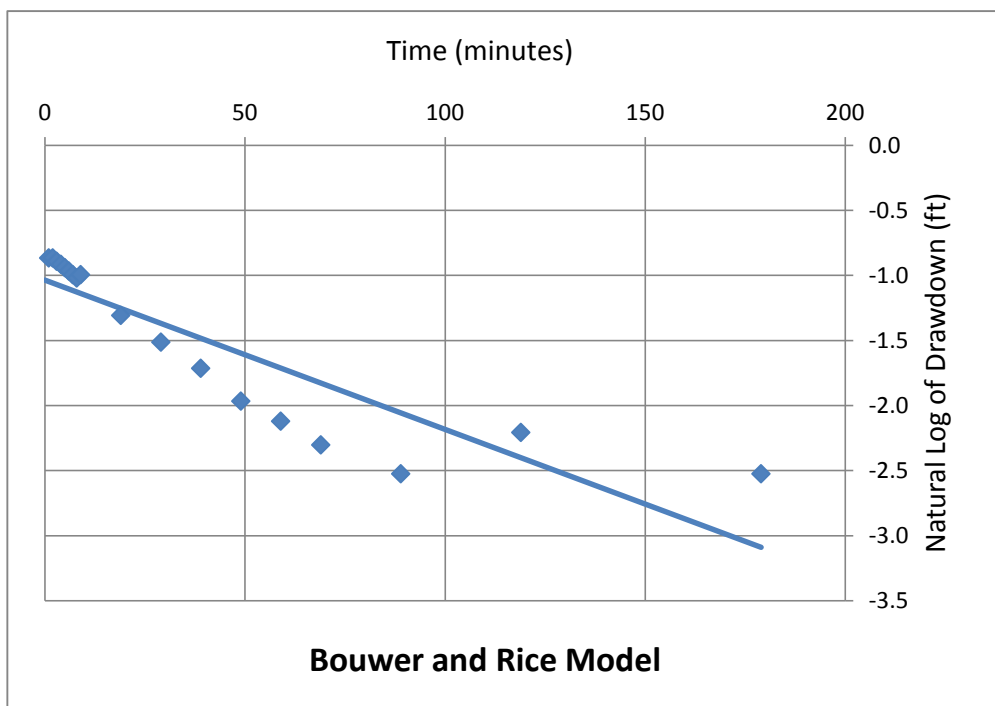
Time_{cut} <- Enter or change value here

Model Results: T_n (ft²/d) = +/- ft²/d

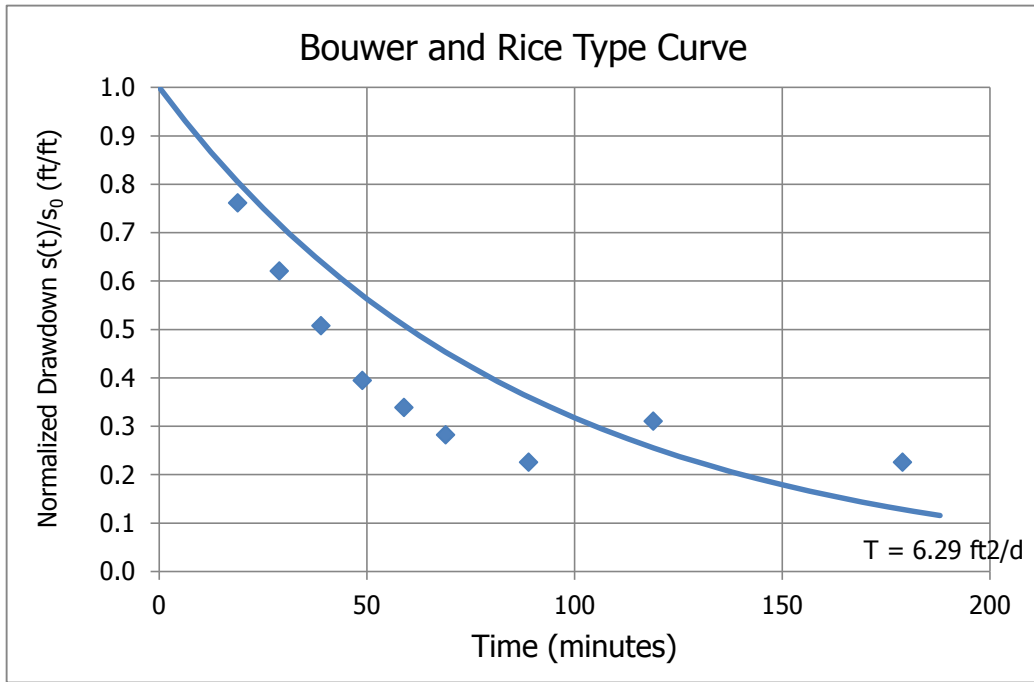
L_e/r_e	37.1
C	2.28
R/r_e	15.41

J-Ratio	-0.090
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Coef. Of Variation	0.13
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C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and Analysis of Slug Tests, CRC Press, 2000.



Cooper and Jacob (1946)

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n S_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	1	<- Enter or change values here
Time Adjustment (min):	0.5	

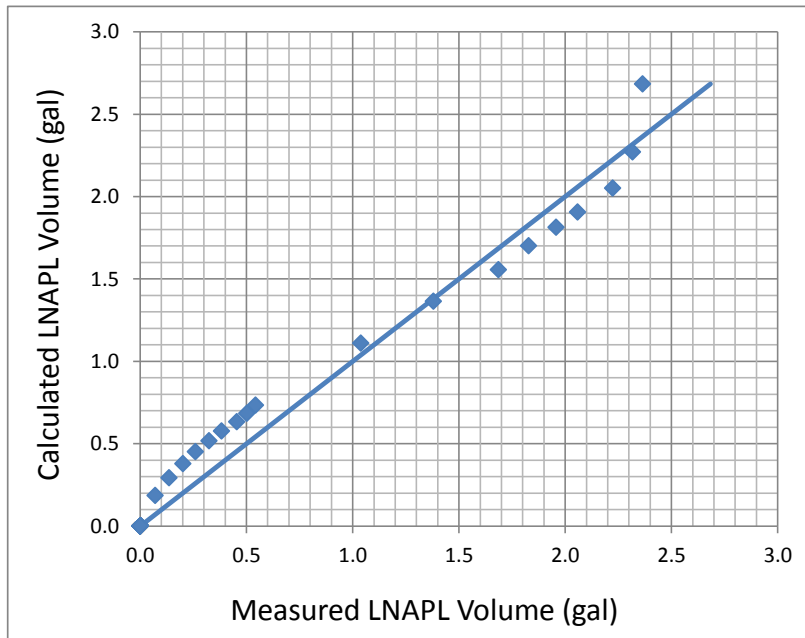
Trial S_n: 0.150 <-- Change S_n value can be manual

Root-Mean-Square Error: 0.706 <-- Minimize this using "Solver"

Trial T_n (ft²/d): 6.681 <-- By changing T_n through "Solver" (and S_n)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 6.68



Cooper, Bredehoeft and Papadopoulos (1967)

Enter early time cut-off for least-squares model fit

Time _{cut} (min):	25	<- Enter or change values here
Time Adjustment (min):	15	
Initial Drawdown s _n (ft):	0.45	

Trial S_n: 0.150 <- Adjust manually or through "Solver"

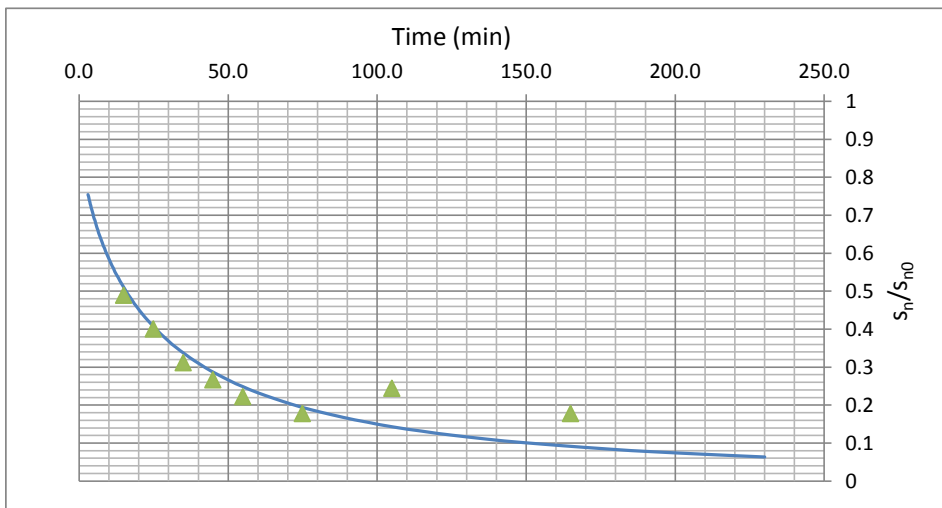
Root-Mean-Square Error: 0.142 <- Minimize this using "Solver"

Trial T_n (ft²/d): 8.731 <- By changing T_n through "Solver" (and S)

Add constraint T_n > 0.00001

Model Result: T_n (ft²/d) = 8.73

T _{min}	3
T _{max}	230



J-Ratio
-0.090

Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

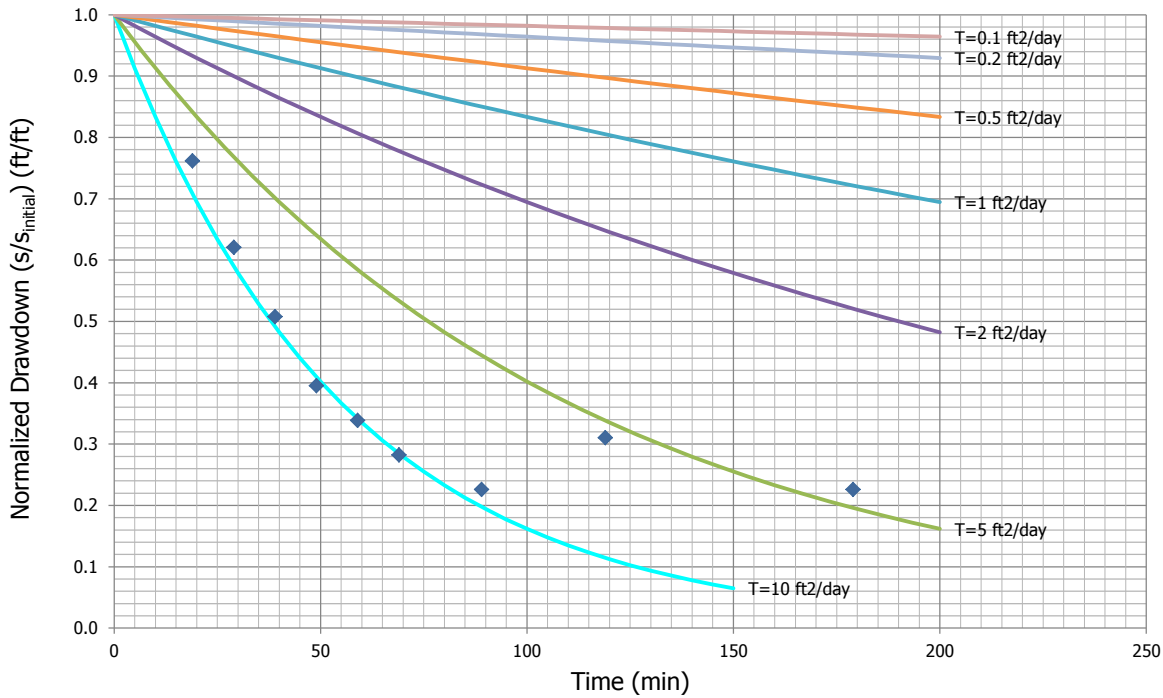
B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333

Enter these values

Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft ² /day)
1	T=10 ft ² /day		150	10
2	T=5 ft ² /day		200	5
3	T=2 ft ² /day		200	2
4	T=1 ft ² /day		200	1
5	T=0.5 ft ² /day		200	0.5
6	T=0.2 ft ² /day		200	0.2
7	T=0.1 ft ² /day		200	0.1

J-Ratio	←- If uncertain use
-0.090	
	-0.11

B&R Type Curves: Casing Rad. (ft) = 0.083 ; Borehole Rad. (ft) = 0.333



APPENDIX G
INDOOR AIR METHANE SURVEY

**TABLE G-1
FIELD SURVEY AND ANALYTICAL DATA RESULTS
PHOENIX BEVERAGES PROPERTY
37-88 REVIEW AVENUE
LONG ISLAND CITY, NEW YORK**

Survey Location	Survey Location	Survey Time	Date (mm/dd/yy)	Field Survey Instrumentation				Analytical Laboratory Samples					Description of Sample Location
				GEMS Gas Monitor			FID	Analytical Laboratory Sample ID	Sample Time	Analytical Laboratory Results ¹ - Methane (%)			
				Methane (CH ₄) (%)	CO ₂ (%)	O ₂ (%)	Methane (CH ₄) (ppm)			Result (% v/v)	Qualifier ²	Reporting Limit (RL)	
Loft	1	12:50	11/5/2014	0.0	0.0	21.3	1.5-2.5	IA-M2	15:10	<0.058	U	0.058	Above Onion storage - 12 feet above storage
West Warehouse	2	12:55	11/5/2014	0.0	0.0	21.8	2.0-2.2	IA-M3	15:17	<0.058	U	0.058	Crack on the floor - West end traffic path
GAL-34 Area	3	12:58	11/5/2014	0.0	0.0	21.8	0.9-1.8	-	-				Near location 2 - West end of the building
Onion Room-Center	4	13:04	11/5/2014	0.0	0.0	21.8	4.9	-	-				Onion Room, bottom floor - cracks in floor
Onion Storage Office	5	13:07	11/5/2014	0.0	0.0	21.7	3.6	IA-M1	15:00	<0.056	U	0.056	Office near onion room - floor upon door entry
GAL-33-Area	6	13:11	11/5/2014	0.0	0.1	21.8	4.4	-	-				GAL-33 Well head area-located near bay door,open
Grand Avenue Food Office	7	13:15	11/5/2014	0.0	0.0	21.8	1.4	IA-M5	15:36	<0.057	U	0.057	located near bay door, door entrance closed prior
GAL-35 Area	8	13:20	11/5/2014	0.0	0.1	21.7	0.9-4.6	-	-				GAL-35 well head area (0.9-4.6) surrounded by packaged goods
Sewer Sump Injection Area	9	13:25	11/5/2014	0.0	0.1	21.8	3.4-5.5	-	-				Fenced in area, across from onion office, water 10.75 feet from grade- circular steel containment area for sewer.
Strip Drain Bay Door	10	13:29	11/5/2014	0.0	0.1	21.8	0.9-1.4	-	-				Run-off drain-inch or two of water, 3 feet deep
GAL-32 Area	11	13:32	11/5/2014	0.0	0.1	21.9	2.2	-	-				GAL-32 Well Area-in landing bay, doors open
GAL-26 Area - Catch Basin	12	13:35	11/5/2014	0.0	0.1	21.9	7.0	-	-				Near Strip drain bay door
Center Warehouse-Floor Drain	13	13:36	11/5/2014	0.0	0.1	21.9	343-370	IA-M4(FD) ³	15:28	<0.060	U	0.060	Floor Drain Strip (7 inches deep) 35 feet from start (8 feet by 10 feet) - Measured breathing zone at 2.6 ppm on FID
East End Floor Drain	14	13:38	11/5/2014	0.0	0.1	21.9	0.0-0.5	-	-				End of floor drain strip, east end of filled in drain
Elevator Room/ Equipment	15	13:45	11/5/2014	0.0	0.1	21.9	0.0	-	-				Contains circuit breaker, elevator pumps
Store room/ Telephone	16	13:49	11/5/2014	0.0	0.1	22.0	9.3	IA-M8	16:14	<0.056	U	0.056	Gasoline powered snow-blower, near elevator
Elevator Shaft	17	13:50	11/5/2014	0.0	0.1	21.8	1.4	-	-				Measured opening between elevator and concrete
Far East Side Warehouse	18	13:55	11/5/2014	0.0	0.1	22.0	2.9	IA-M7	15:54	<0.055	U	0.055	As far east as could go, last gate we have key for
Bay Door/ Center Floor Drain	19	14:00	11/5/2014	0.0	0.1	22.0	0.0	-	-				Bay door open-center floor drain, Windy-open to east side
GAL 37-Area	20	14:03	11/5/2014	0.0	0.1	22.0	0.0	-	-				Bay door open-area around well, near lift
Stair Well Center	21	14:10	11/5/2014	0.0	0.1	22.2	0.0	-	-				Base floor in stairwell
Storage Room 1	22	14:05	11/5/2014	0.0	0.1	22.0	0.0	-	-				To the right of the maintenance room, containing misc items and boiler
Storage Room 2	23	14:08	11/5/2014	0.0	0.1	22.0	0.0	-	-				To the left of the maintenance room, containing misc items and boiler
Above Boiler	24	14:11	11/5/2014	0.0	0.1	22.2	0.0	-	-				Floor Directly above boiler - warm rooms - empty
1st Floor	25	14:13	11/5/2014	0.0	0.1	22.1	0.0	IA-M6	15:45	<0.059	U	0.059	1st Floor of offices
2nd Floor Hallway	26	14:15	11/5/2014	0.0	0.1	22.1	0.0	-	-				Hallway- through glass door, out of the stairwell
Guardian Data Destruction - Office	27	15:20	11/5/2014	0.0	0.1	22.0	0.0	-	-				Above Grand Ave. foods office, upper floor office within the warehouse
East End Warehouse-Sump	28	15:45	11/5/2014	0.0	0.1	22.1	0.0	-	-				East End of warehouse - near sump pump, close wall
Wall behind location 2 - West Warehouse	29	16:20	11/5/2014	0.0	0.1	22.0	0.0	-	-				Crack in south western wall - near second survey location
Location 1 - adjacent to elevator entrance	30	16:23	11/5/2014	0.0	0.1	22.0	0.0	-	-				Small hole/crack in wall- left side of elevator - to elevator
Location 2 - near elevator entrance	31	16:27	11/5/2014	0.0	0.1	22.0	0.0	-	-				Small hole/crack in wall- left side of elevator - closest to elevator - near floor level
Location 3 - near elevator entrance	32	16:30	11/5/2014	0.0	0.1	22.0	0.0	-	-				Small hole/crack in wall- left side of elevator - farthest from elevator - near floor level

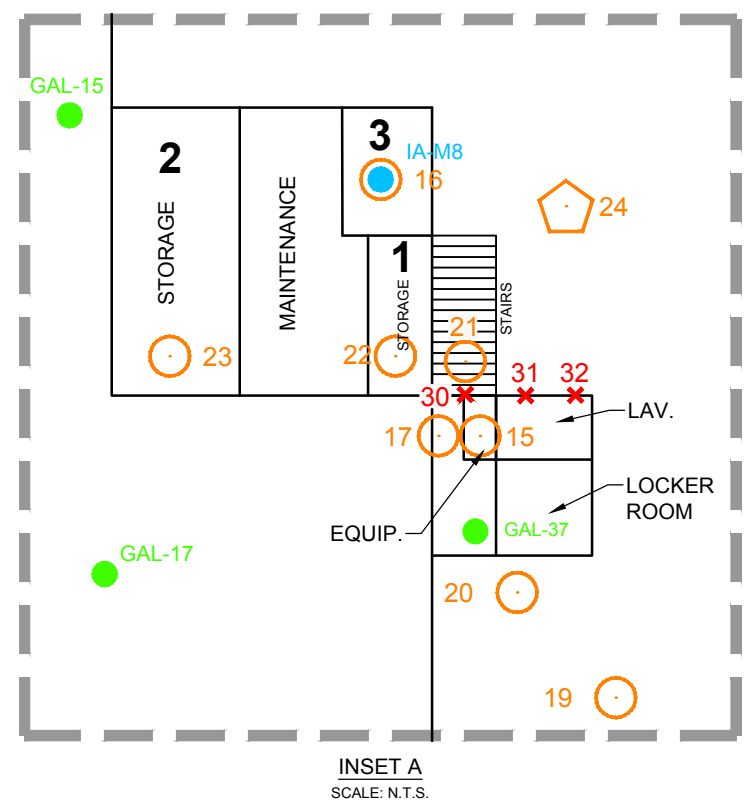
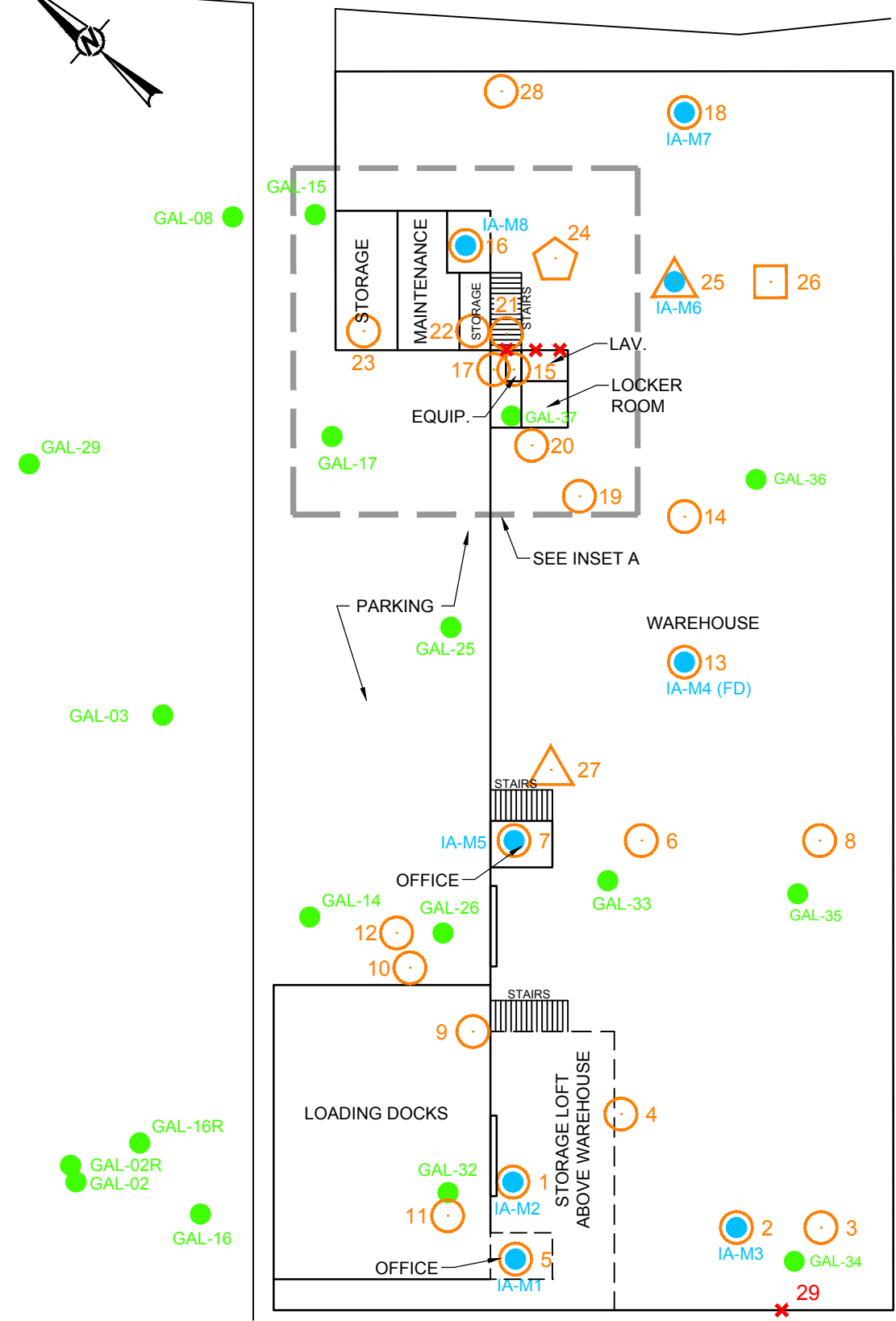
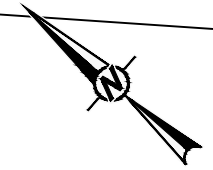
Notes:

- ¹ TestAmerica Analytical Laboratory Report received on November 7, 2014. Golder performed a preliminary validation of the data package on November 7, 2014 and noted no issues with the exception for the receipt pressure in the Summa Cannister for Field Duplicate sample IA-M4(FD). The pressure in this cannister was received at ambient pressure (0-inches of mercury).
- ² U - Not-Detect above the analytical laboratory reporting limit.
- ³ IA-M4 collected at ground surface with Quality Control sample (field duplicate) included

Created by: RW
Checked by: JG / SDM



REVIEW AVENUE



LEGEND

- 1 FIELD SCREENING LOCATION (GROUND FLOOR)
- 25 FIELD SCREENING LOCATION (1st FLOOR)
- 26 FIELD SCREENING LOCATION (2nd FLOOR)
- 24 FIELD SCREENING LOCATION (ABOVE BOILER ROOM)
- 30 FIELD SCREENING LOCATION (WALL)
- IA-M1 ANALYTICAL SAMPLE LOCATION
- LNAPL MONITORING WELL (GOLDER ASSOCIATES 2003/2004/2005/2008/2014)

NOTES

- 1.) SAMPLE LOCATIONS AND FIELD SCREENING LOCATIONS ARE APPROXIMATE.
- 2.) NOT TO SCALE.

Drawing file: 1302414B011 - Figure G-1.dwg Nov 18, 2014 - 3:26pm

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RWW
PROJECT 37-88 REVIEW AVENUE/PHOENIX PROPERTY LONG ISLAND CITY, QUEENS, NEW YORK						
TITLE METHANE FIELD SCREENING AND SAMPLING LOCATIONS						
PROJECT No. 1302414			FILE No. 1302414B011			
DESIGN	RMW	11/18/14	SCALE	N.T.S.	REV.	0
CADD	GLS	11/18/14	FIGURE G-1			
CHECK	HAL	11/18/14				
REVIEW	SDM	11/18/14				



NOVEMBER 2014 INDOOR AIR SAMPLING DUSR

**Data Usability Summary Report
November 2014 Indoor Air Sampling
Phoenix Property
Long Island City, Queens, New York**

This report presents the findings of the data quality assessment performed on the analysis of environmental indoor air samples collected on November 5, 2014 at the Phoenix Property Site (Site), located at 37-88 Review Avenue in Long Island City, Queens, New York. In accordance with the Quality Assurance Project Plan (QAPP)¹, the chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

A total of eight (8) indoor air samples, as well as one (1) field duplicate, for Quality Control (QC) purposes, were collected for chemical analysis during the sampling event. Information regarding the sample point identifications, analytical parameters, QC samples, sampling dates, and contract laboratory sample delivery group (SDG) designations are summarized in Table 1.

Samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) of Burlington, Vermont utilizing the following method guidelines:

- Methane by United States Environmental Protection Agency (USEPA) Method 3C, Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources (June 1996).

Data were evaluated for completeness, general method conformance, holding times, blank contamination, laboratory control samples, surrogate and spike recoveries, field precision, precision of duplicate measurements, and calibration and instrument performance. Analytical results were reported in NYSDEC ASP Category B Data Deliverables format, suitable for data evaluation. Data evaluation was performed by Golder Associates Inc. following guidelines provided by the USEPA Region II Standard Operating Procedures (SOPs) shown below, where applicable to the analytical methodology previously noted. When there was a conflict between the Region II guidelines and the analytical methodology, method-specific criteria and professional judgment were used.

- HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15, Revision 4 (October 2006);

In general, chemical results for the samples collected at the Site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide a brief explanation of the qualifiers which may have been assigned to data during the data evaluation process.

¹ Quality Assurance Project Plan, Appendix B of the Remedial Investigation / Focused Feasibility Study Work Plan for the Phoenix Property; Golder, December 2013.

- UJ** The analyte was not detected at a level greater than or equal to the RL. However, the RL is approximate and may be inaccurate or imprecise.

Table 2 summarizes all qualifications applied to the data, with applicable qualifier codes. In general, the data generated during the sampling event met the QC criteria established in the respective USEPA method, Region II SOP, and the QAPP, with the exception of the following bulleted items highlighting qualifications to specific parameters. Although these qualifications were applied to some of the samples collected at the site, the qualifications may not have been required or applied to all samples collected.

- The methane result for field duplicate sample IA-M4 FD was qualified as estimated (UJ) when the laboratory received the sample at ambient pressure. As the pressure in the canister was less than expected, the reporting limit for the non-detected result should be considered an estimated value.

Based on the data evaluation and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data but excluding rejected data) for their intended use. The overall data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated data (J/UJ)) was 100%.

Table 1
Sample Point Identifications
November 2014 Indoor Air Sampling
Phoenix Property
Long Island City, Queens, New York

Lab SDG	Sample ID	Matrix	Date Sampled	Methane
Primary Samples				
200-25225-1	IA-M1	Indoor Air	11/5/2014	x
200-25225-1	IA-M2	Indoor Air	11/5/2014	x
200-25225-1	IA-M3	Indoor Air	11/5/2014	x
200-25225-1	IA-M4	Indoor Air	11/5/2014	x
200-25225-1	IA-M5	Indoor Air	11/5/2014	x
200-25225-1	IA-M6	Indoor Air	11/5/2014	x
200-25225-1	IA-M7	Indoor Air	11/5/2014	x
200-25225-1	IA-M8	Indoor Air	11/5/2014	x
Field Duplicates				
200-25225-1	IA-M4 FD (IA-M4)	Indoor Air	11/5/2014	x

Notes and Abbreviations:

1. Primary samples associated with each field duplicate are shown in parenthesis.

SDG - Sample Delivery Group

Table 2
Data Qualifications
November 2014 Indoor Air Sampling
Phoenix Property
Long Island City, Queens, New York

<i>SDG</i>	<i>Matrix</i>	<i>Sample Name</i>	<i>Constituent</i>	<i>New Result</i>	<i>New RL</i>	<i>Qualifier</i>	<i>Reason</i>
200-25225-1	Indoor Air	IA-M4 FD	Methane	-	-	UJ	Sample received at ambient pressure.

Abbreviations:

FD - Field Duplicate

RL - Reporting Limit

SDG - Sample Delivery Group

Qualifiers:

UJ The analyte was not detected at a level greater than or equal to the RL. However, the RL is approximate and may be inaccurate or imprecise.

NOVEMBER 2014 METHANE ANALYSIS DATA PACKAGE

ANALYTICAL REPORT

Job Number: 200-25225-1

SDG Number: 200-25225-1

Job Description: Phoenix

For:

Golder Associates Inc.

Newark

744 Broad Street

25th Floor

Newark, NJ 07102

Attention: Ms. Alison Zoll



Approved for release.
Rayburn J Lavigne
Project Manager II
11/7/2014 2:22 PM

Rayburn J Lavigne, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)660-1990
rayburnj.lavigne@testamericainc.com
11/07/2014

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Golder Associates Inc.

Project: Phoenix

Report Number: 200-25225-1

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

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

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

RECEIPT

The samples were received on 11/06/2014; the samples arrived in good condition.

Please note that the canister asset number listed on the COC for sample IA-M3 (#3264) is incorrect. The correct canister asset number is #3265.

FIXED GASES - 3C - Methane Only

Samples IA-M1, IA-M2, IA-M3, IA-M4, IA-M4 FD, IA-M5, IA-M6, IA-M7 and IA-M8 were analyzed for Fixed Gases in accordance with EPA Method 3C. The samples were analyzed on 11/06/2014 and 11/07/2014.

Samples IA-M1[1.41X], IA-M2[1.46X], IA-M3[1.45X], IA-M4[1.49X], IA-M4 FD[1.36X], IA-M5[1.43X], IA-M6[1.48X], IA-M7[1.38X] and IA-M8[1.41X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SAMPLE SUMMARY

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-25225-1	IA-M1	Air	11/05/2014 1501	11/06/2014 1020
200-25225-2	IA-M2	Air	11/05/2014 1511	11/06/2014 1020
200-25225-3	IA-M3	Air	11/05/2014 1518	11/06/2014 1020
200-25225-4	IA-M4	Air	11/05/2014 1529	11/06/2014 1020
200-25225-5FD	IA-M4 FD	Air	11/05/2014 1529	11/06/2014 1020
200-25225-6	IA-M5	Air	11/05/2014 1537	11/06/2014 1020
200-25225-7	IA-M6	Air	11/05/2014 1546	11/06/2014 1020
200-25225-8	IA-M7	Air	11/05/2014 1555	11/06/2014 1020
200-25225-9	IA-M8	Air	11/05/2014 1615	11/06/2014 1020

EXECUTIVE SUMMARY - Detections

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
---------------	------------------	--------	-----------	-----------------	-------	--------

No Detections

METHOD SUMMARY

Client: Golder Associates Inc.

Job Number: 200-25225-1
Sdg Number: 200-25225-1

Description	Lab Location	Method	Preparation Method
Matrix: Air			
Fixed Gases from Stationary Sources	TAL BUR	EPA EPA 3C	
Collection via Summa Canister	TAL BUR		Summa Canister

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Method	Analyst	Analyst ID
EPA EPA 3C	Lyons, Benjamin P	BPL

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M1

Lab Sample ID: 200-25225-1

Date Sampled: 11/05/2014 1501

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-1@1.41001
Dilution:	1.41			Initial Weight/Volume:	2 mL
Analysis Date:	11/06/2014 1445			Final Weight/Volume:	2 mL
Prep Date:	11/06/2014 1445			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.056	U	0.056	0.056

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M2

Lab Sample ID: 200-25225-2

Date Sampled: 11/05/2014 1511

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-2@1.46001
Dilution:	1.46			Initial Weight/Volume:	2 mL
Analysis Date:	11/06/2014 1532			Final Weight/Volume:	2 mL
Prep Date:	11/06/2014 1532			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.058	U	0.058	0.058

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M3

Lab Sample ID: 200-25225-3

Date Sampled: 11/05/2014 1518

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-3@1.45001
Dilution:	1.45			Initial Weight/Volume:	2 mL
Analysis Date:	11/06/2014 1620			Final Weight/Volume:	2 mL
Prep Date:	11/06/2014 1620			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.058	U	0.058	0.058

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M4

Lab Sample ID: 200-25225-4

Date Sampled: 11/05/2014 1529

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-4@1.49001
Dilution:	1.49			Initial Weight/Volume:	2 mL
Analysis Date:	11/06/2014 1707			Final Weight/Volume:	2 mL
Prep Date:	11/06/2014 1707			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.060	U	0.060	0.060

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M4 FD

Lab Sample ID: 200-25225-5FD

Date Sampled: 11/05/2014 1529

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-5@1.36001
Dilution:	1.36			Initial Weight/Volume:	2 mL
Analysis Date:	11/06/2014 1755			Final Weight/Volume:	2 mL
Prep Date:	11/06/2014 1755			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.054	U	0.054	0.054

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M5

Lab Sample ID: 200-25225-6

Date Sampled: 11/05/2014 1537

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80106	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-6@1.43001
Dilution:	1.43			Initial Weight/Volume:	2 mL
Analysis Date:	11/07/2014 0842			Final Weight/Volume:	2 mL
Prep Date:	11/07/2014 0842			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.057	U	0.057	0.057

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M6

Lab Sample ID: 200-25225-7

Date Sampled: 11/05/2014 1546

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80131	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-7@1.48001
Dilution:	1.48			Initial Weight/Volume:	2 mL
Analysis Date:	11/07/2014 1130			Final Weight/Volume:	2 mL
Prep Date:	11/07/2014 1130			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.059	U	0.059	0.059

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M7

Lab Sample ID: 200-25225-8

Date Sampled: 11/05/2014 1555

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80131	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-8@1.38001
Dilution:	1.38			Initial Weight/Volume:	2 mL
Analysis Date:	11/07/2014 1202			Final Weight/Volume:	2 mL
Prep Date:	11/07/2014 1202			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.055	U	0.055	0.055

Analytical Data

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Client Sample ID: IA-M8

Lab Sample ID: 200-25225-9

Date Sampled: 11/05/2014 1615

Client Matrix: Air

Date Received: 11/06/2014 1020

EPA 3C Fixed Gases from Stationary Sources

Analysis Method:	EPA 3C	Analysis Batch:	200-80131	Instrument ID:	CH0001.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	200-25225-a-9@1.41001
Dilution:	1.41			Initial Weight/Volume:	2 mL
Analysis Date:	11/07/2014 1234			Final Weight/Volume:	2 mL
Prep Date:	11/07/2014 1234			Injection Volume:	2 mL

Analyte	Result (% v/v)	Qualifier	MDL	RL
Methane	0.056	U	0.056	0.056

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1
Sdg Number: 200-25225-1

Method Blank - Batch: 200-80106

Lab Sample ID: MB 200-80106/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 11/06/2014 1223
Prep Date: 11/06/2014 1223
Leach Date: N/A

Analysis Batch: 200-80106
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

**Method: EPA 3C
Preparation: Summa Canister**

Instrument ID: CH0001.i
Lab File ID: mb110614001.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

Analyte	Result	Qual	MDL	RL
Methane	0.040	U	0.040	0.040

Lab Control Sample - Batch: 200-80106

Lab Sample ID: LCS 200-80106/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 11/06/2014 1144
Prep Date: 11/06/2014 1144
Leach Date: N/A

Analysis Batch: 200-80106
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

**Method: EPA 3C
Preparation: Summa Canister**

Instrument ID: CH0001.i
Lab File ID: 3clcs110614001.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methane	4.00	3.51	88	70 - 130	

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1
Sdg Number: 200-25225-1

Method Blank - Batch: 200-80131

Lab Sample ID: MB 200-80131/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 11/07/2014 1038
Prep Date: 11/07/2014 1038
Leach Date: N/A

Analysis Batch: 200-80131
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Method: EPA 3C

Preparation: Summa Canister

Instrument ID: CH0001.i
Lab File ID: mb110614003.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

Analyte	Result	Qual	MDL	RL
Methane	0.040	U	0.040	0.040

Lab Control Sample - Batch: 200-80131

Lab Sample ID: LCS 200-80131/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 11/07/2014 0955
Prep Date: 11/07/2014 0955
Leach Date: N/A

Analysis Batch: 200-80131
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Method: EPA 3C

Preparation: Summa Canister

Instrument ID: CH0001.i
Lab File ID: 3clcs110614002.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methane	4.00	3.51	88	70 - 130	

DATA REPORTING QUALIFIERS

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

Lab Section	Qualifier	Description
Air - GC VOA	U	Indicates the analyte was analyzed for but not detected.

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1

Sdg Number: 200-25225-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Air - GC VOA					
Analysis Batch:200-80106					
LCS 200-80106/2	Lab Control Sample	T	Air	EPA 3C	
MB 200-80106/3	Method Blank	T	Air	EPA 3C	
200-25225-1	IA-M1	T	Air	EPA 3C	
200-25225-2	IA-M2	T	Air	EPA 3C	
200-25225-3	IA-M3	T	Air	EPA 3C	
200-25225-4	IA-M4	T	Air	EPA 3C	
200-25225-5FD	IA-M4 FD	T	Air	EPA 3C	
200-25225-6	IA-M5	T	Air	EPA 3C	
Analysis Batch:200-80131					
LCS 200-80131/2	Lab Control Sample	T	Air	EPA 3C	
MB 200-80131/3	Method Blank	T	Air	EPA 3C	
200-25225-7	IA-M6	T	Air	EPA 3C	
200-25225-8	IA-M7	T	Air	EPA 3C	
200-25225-9	IA-M8	T	Air	EPA 3C	

Report Basis

T = Total

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1
SDG: 200-25225-1

Laboratory Chronicle

Lab ID: 200-25225-1

Client ID: IA-M1

Sample Date/Time: 11/05/2014 15:01 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-1		200-80106		11/06/2014 14:45	1.41	TAL BUR	BPL
A:EPA 3C	200-25225-A-1		200-80106		11/06/2014 14:45	1.41	TAL BUR	BPL

Lab ID: 200-25225-2

Client ID: IA-M2

Sample Date/Time: 11/05/2014 15:11 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-2		200-80106		11/06/2014 15:32	1.46	TAL BUR	BPL
A:EPA 3C	200-25225-A-2		200-80106		11/06/2014 15:32	1.46	TAL BUR	BPL

Lab ID: 200-25225-3

Client ID: IA-M3

Sample Date/Time: 11/05/2014 15:18 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-3		200-80106		11/06/2014 16:20	1.45	TAL BUR	BPL
A:EPA 3C	200-25225-A-3		200-80106		11/06/2014 16:20	1.45	TAL BUR	BPL

Lab ID: 200-25225-4

Client ID: IA-M4

Sample Date/Time: 11/05/2014 15:29 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-4		200-80106		11/06/2014 17:07	1.49	TAL BUR	BPL
A:EPA 3C	200-25225-A-4		200-80106		11/06/2014 17:07	1.49	TAL BUR	BPL

Lab ID: 200-25225-5

Client ID: IA-M4 FD

Sample Date/Time: 11/05/2014 15:29 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-5		200-80106		11/06/2014 17:55	1.36	TAL BUR	BPL
A:EPA 3C	200-25225-A-5		200-80106		11/06/2014 17:55	1.36	TAL BUR	BPL

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1
SDG: 200-25225-1

Laboratory Chronicle

Lab ID: 200-25225-6

Client ID: IA-M5

Sample Date/Time: 11/05/2014 15:37 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-6		200-80106		11/07/2014 08:42	1.43	TAL BUR	BPL
A:EPA 3C	200-25225-A-6		200-80106		11/07/2014 08:42	1.43	TAL BUR	BPL

Lab ID: 200-25225-7

Client ID: IA-M6

Sample Date/Time: 11/05/2014 15:46 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-7		200-80131		11/07/2014 11:30	1.48	TAL BUR	BPL
A:EPA 3C	200-25225-A-7		200-80131		11/07/2014 11:30	1.48	TAL BUR	BPL

Lab ID: 200-25225-8

Client ID: IA-M7

Sample Date/Time: 11/05/2014 15:55 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-8		200-80131		11/07/2014 12:02	1.38	TAL BUR	BPL
A:EPA 3C	200-25225-A-8		200-80131		11/07/2014 12:02	1.38	TAL BUR	BPL

Lab ID: 200-25225-9

Client ID: IA-M8

Sample Date/Time: 11/05/2014 16:15 Received Date/Time: 11/06/2014 10:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	200-25225-A-9		200-80131		11/07/2014 12:34	1.41	TAL BUR	BPL
A:EPA 3C	200-25225-A-9		200-80131		11/07/2014 12:34	1.41	TAL BUR	BPL

Lab ID: MB

Client ID: N/A

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

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	MB 200-80106/3		200-80106		11/06/2014 12:23	1	TAL BUR	BPL
A:EPA 3C	MB 200-80106/3		200-80106		11/06/2014 12:23	1	TAL BUR	BPL
P:Summa Canister	MB 200-80131/3		200-80131		11/07/2014 10:38	1	TAL BUR	BPL
A:EPA 3C	MB 200-80131/3		200-80131		11/07/2014 10:38	1	TAL BUR	BPL

Quality Control Results

Client: Golder Associates Inc.

Job Number: 200-25225-1
SDG: 200-25225-1

Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:Summa Canister	LCS 200-80106/2		200-80106		11/06/2014 11:44	1	TAL BUR	BPL
A:EPA 3C	LCS 200-80106/2		200-80106		11/06/2014 11:44	1	TAL BUR	BPL
P:Summa Canister	LCS 200-80131/2		200-80131		11/07/2014 09:55	1	TAL BUR	BPL
A:EPA 3C	LCS 200-80131/2		200-80131		11/07/2014 09:55	1	TAL BUR	BPL

Lab References:

TAL BUR = TestAmerica Burlington

Method EPA 3C

Fixed Gases from Stationary Sources
by Method EPA - 3C

FORM III
AIR - GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Matrix: Air Level: Low Lab File ID: 3clcs110614001.d-avg
 Lab ID: LCS 200-80106/2 Client ID: _____

COMPOUND	SPIKE ADDED (% v/v)	LCS CONCENTRATION (% v/v)	LCS % REC	QC LIMITS REC	#
Methane	4.00	3.51	88	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Matrix: Air Level: Low Lab File ID: 3clcs110614002.d-avg
 Lab ID: LCS 200-80131/2 Client ID: _____

COMPOUND	SPIKE ADDED (% v/v)	LCS CONCENTRATION (% v/v)	LCS % REC	QC LIMITS REC	#
Methane	4.00	3.51	88	70-130	

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab File ID: mb110614001.d-avg Lab Sample ID: MB 200-80106/3
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CH0001.i Date Analyzed: 11/06/2014 12:23
 GC Column: CTR-1 ID: 3.175 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-80106/2	3clcs110614001.d-avg	11/06/2014 11:44
IA-M1	200-25225-1	200-25225-a-1@1.41001.d-avg	11/06/2014 14:45
IA-M2	200-25225-2	200-25225-a-2@1.46001.d-avg	11/06/2014 15:32
IA-M3	200-25225-3	200-25225-a-3@1.45001.d-avg	11/06/2014 16:20
IA-M4	200-25225-4	200-25225-a-4@1.49001.d-avg	11/06/2014 17:07
IA-M4 FD	200-25225-5	200-25225-a-5@1.36001.d-avg	11/06/2014 17:55
IA-M5	200-25225-6	200-25225-a-6@1.43001.d-avg	11/07/2014 08:42

FORM IV
AIR - GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab File ID: mb110614003.d-avg Lab Sample ID: MB 200-80131/3
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CH0001.i Date Analyzed: 11/07/2014 10:38
 GC Column: CTR-1 ID: 3.175 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-80131/2	3clcs110614002.d-avg	11/07/2014 09:55
IA-M6	200-25225-7	200-25225-a-7@1.48001.d-avg	11/07/2014 11:30
IA-M7	200-25225-8	200-25225-a-8@1.38001.d-avg	11/07/2014 12:02
IA-M8	200-25225-9	200-25225-a-9@1.41001.d-avg	11/07/2014 12:34

FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M1 Lab Sample ID: 200-25225-1
 Matrix: Air Lab File ID: 200-25225-a-1@1.41001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:01
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 14:45
 Soil Aliquot Vol: _____ Dilution Factor: 1.41
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.056	U	0.056	0.056

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-1@1.41001.d
 Lims ID: 200-25225-A-1 Lab Sample ID: 200-25225-1
 Client ID: IA-M1
 Sample Type: Client
 Inject. Date: 06-Nov-2014 14:45:05 ALS Bottle#: 0 Worklist Smp#: 14
 Purge Vol: 2.000 mL Dil. Factor: 1.4100
 Sample Info: 200-25225-A-1@1.41
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-1@1.41.d
 Lims ID: 200-25225-A-1 Lab Sample ID: 200-25225-1
 Client ID: IA-M1
 Sample Type: Client
 Inject. Date: 06-Nov-2014 14:29:11 ALS Bottle#: 0 Worklist Smp#: 13
 Purge Vol: 2.000 mL Dil. Factor: 1.4100
 Sample Info: 200-25225-A-1@1.41
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-1@1.41001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-1@1.41-80047-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

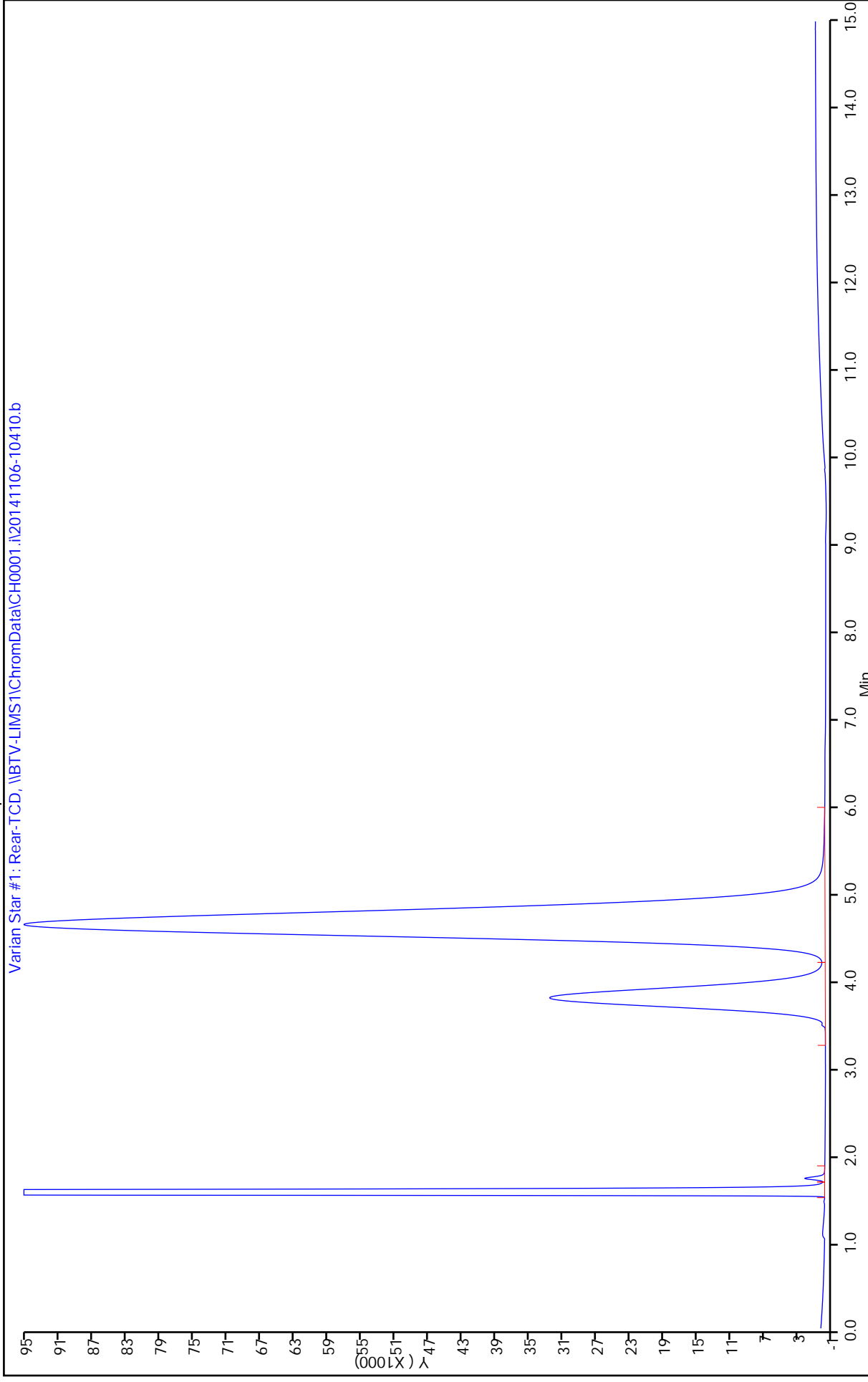
----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-1@1.41001.d
Injection Date: 06-Nov-2014 14:45:05
Lims ID: 200-25225-A-1
Client ID: IA-M1
Purge Vol: 2.000 mL
Method: EPA3C_CH00001.i

Operator ID: BPL
Worklist Smp#: 14
ALS Bottle#: 0

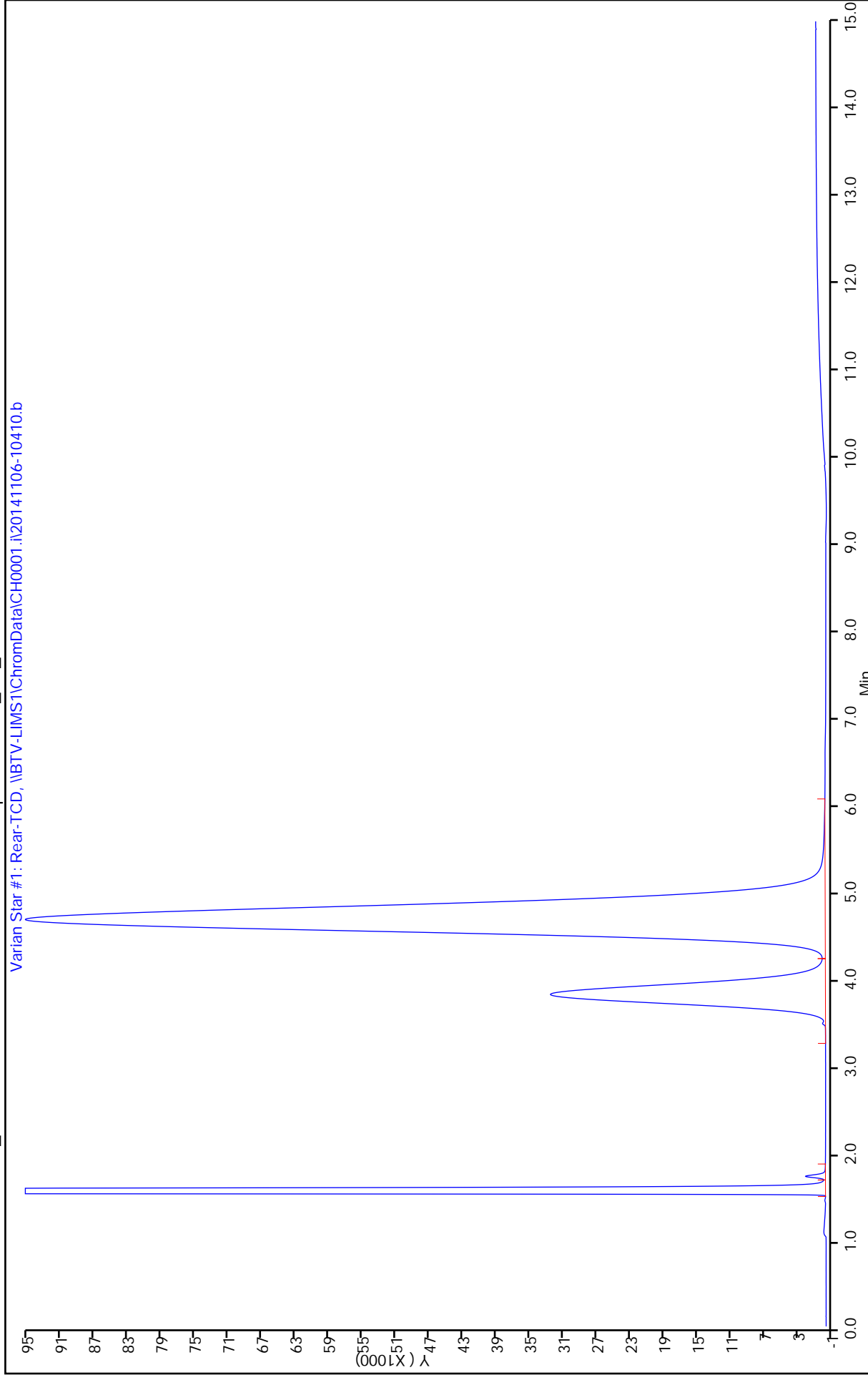
Dil. Factor: 1.4100
Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-1@1.41.d
Injection Date: 06-Nov-2014 14:29:11 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-1 Lab Sample ID: 200-25225-1 Worklist Smp#: 13
Client ID: IA-M1 Dil. Factor: 1.4100 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b

FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M2 Lab Sample ID: 200-25225-2
 Matrix: Air Lab File ID: 200-25225-a-2@1.46001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:11
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 15:32
 Soil Aliquot Vol: _____ Dilution Factor: 1.46
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.058	U	0.058	0.058

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-2@1.46001.d
 Lims ID: 200-25225-A-2 Lab Sample ID: 200-25225-2
 Client ID: IA-M2
 Sample Type: Client
 Inject. Date: 06-Nov-2014 15:32:39 ALS Bottle#: 0 Worklist Smp#: 17
 Purge Vol: 2.000 mL Dil. Factor: 1.4600
 Sample Info: 200-25225-A-2@1.46
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-2@1.46.d
 Lims ID: 200-25225-A-2 Lab Sample ID: 200-25225-2
 Client ID: IA-M2
 Sample Type: Client
 Inject. Date: 06-Nov-2014 15:16:48 ALS Bottle#: 0 Worklist Smp#: 16
 Purge Vol: 2.000 mL Dil. Factor: 1.4600
 Sample Info: 200-25225-A-2@1.46
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-2@1.46001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-2@1.46-80047-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

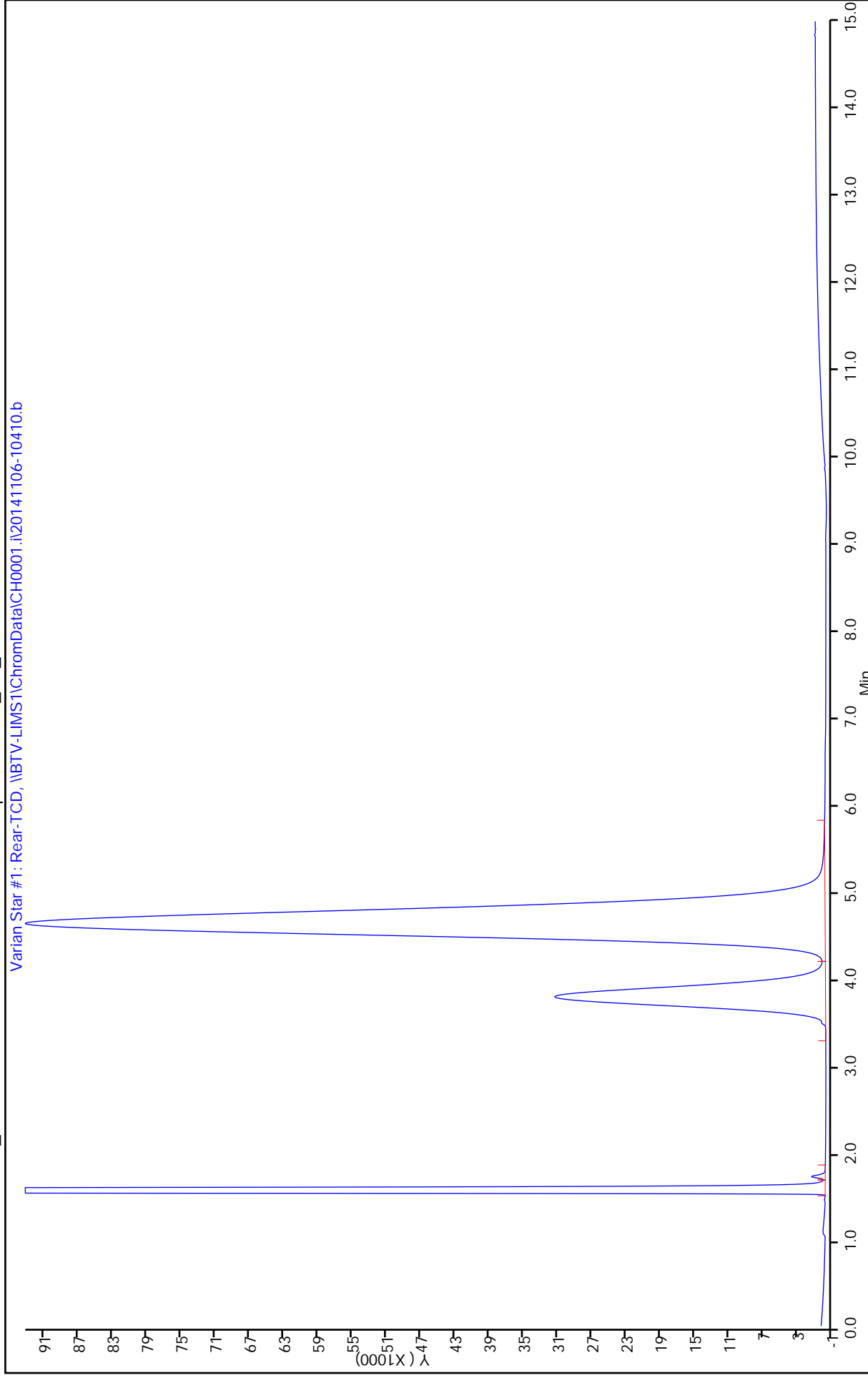
Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-2@1.46001.d
Injection Date: 06-Nov-2014 15:32:39 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-2 Lab Sample ID: 200-25225-2 Worklist Smp#: 17
Client ID: IA-M2 Dil. Factor: 1.4600 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i

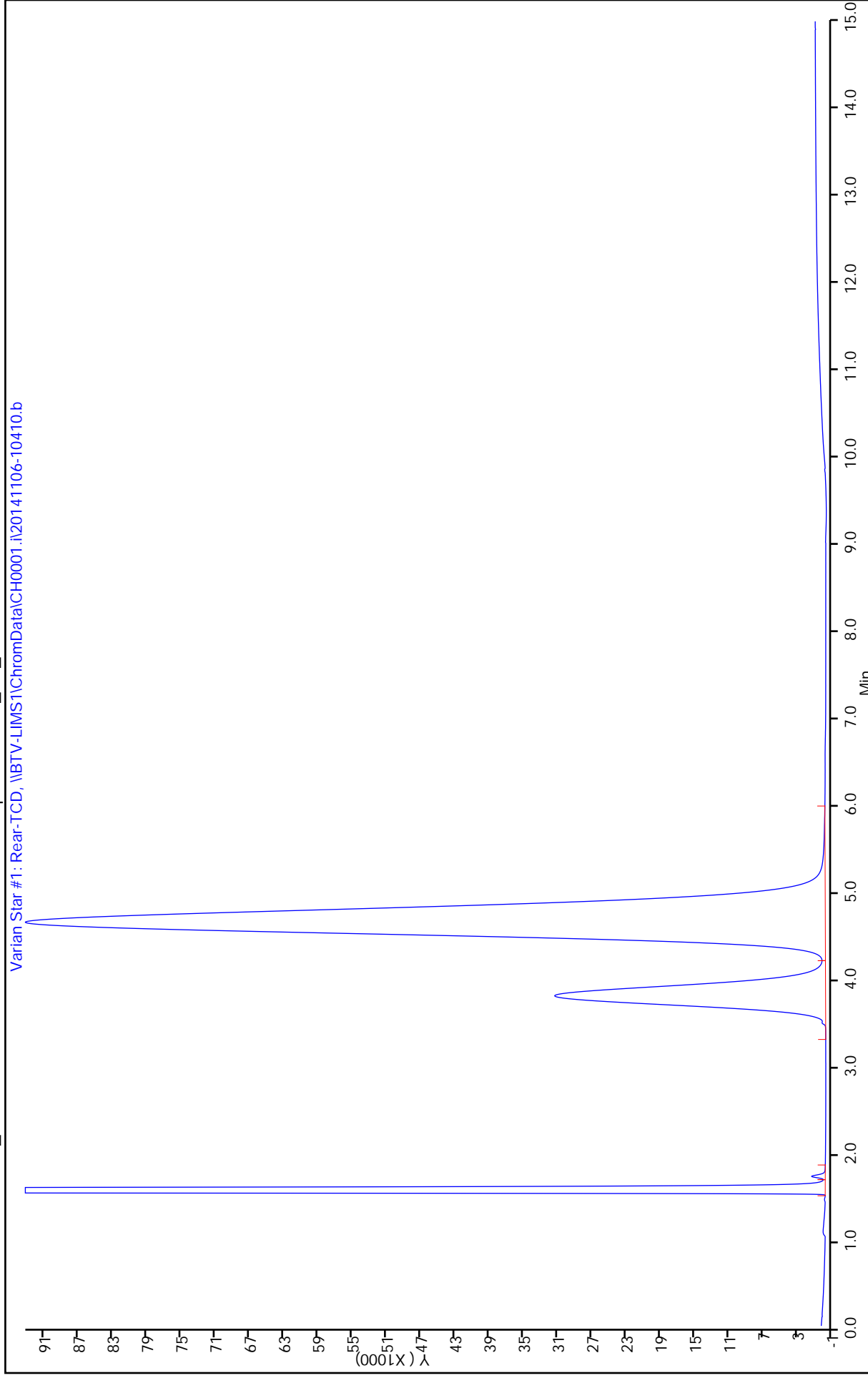


TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-252225-a-2@1.46.d
Injection Date: 06-Nov-2014 15:16:48
Lims ID: 200-252225-A-2
Client ID: IA-M2
Purge Vol: 2.000 mL
Method: EPA3C_CH00001.i

Operator ID: BPL
Worklist Smp#: 16
ALS Bottle#: 0

Dil. Factor: 1.4600
Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M3 Lab Sample ID: 200-25225-3
 Matrix: Air Lab File ID: 200-25225-a-3@1.45001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:18
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 16:20
 Soil Aliquot Vol: _____ Dilution Factor: 1.45
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.058	U	0.058	0.058

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-3@1.45001.d
 Lims ID: 200-25225-A-3 Lab Sample ID: 200-25225-3
 Client ID: IA-M3
 Sample Type: Client
 Inject. Date: 06-Nov-2014 16:20:16 ALS Bottle#: 0 Worklist Smp#: 20
 Purge Vol: 2.000 mL Dil. Factor: 1.4500
 Sample Info: 200-25225-A-3@1.45
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-3@1.45.d
 Lims ID: 200-25225-A-3 Lab Sample ID: 200-25225-3
 Client ID: IA-M3
 Sample Type: Client
 Inject. Date: 06-Nov-2014 16:04:23 ALS Bottle#: 0 Worklist Smp#: 19
 Purge Vol: 2.000 mL Dil. Factor: 1.4500
 Sample Info: 200-25225-A-3@1.45
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-3@1.45001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-3@1.45-80047-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

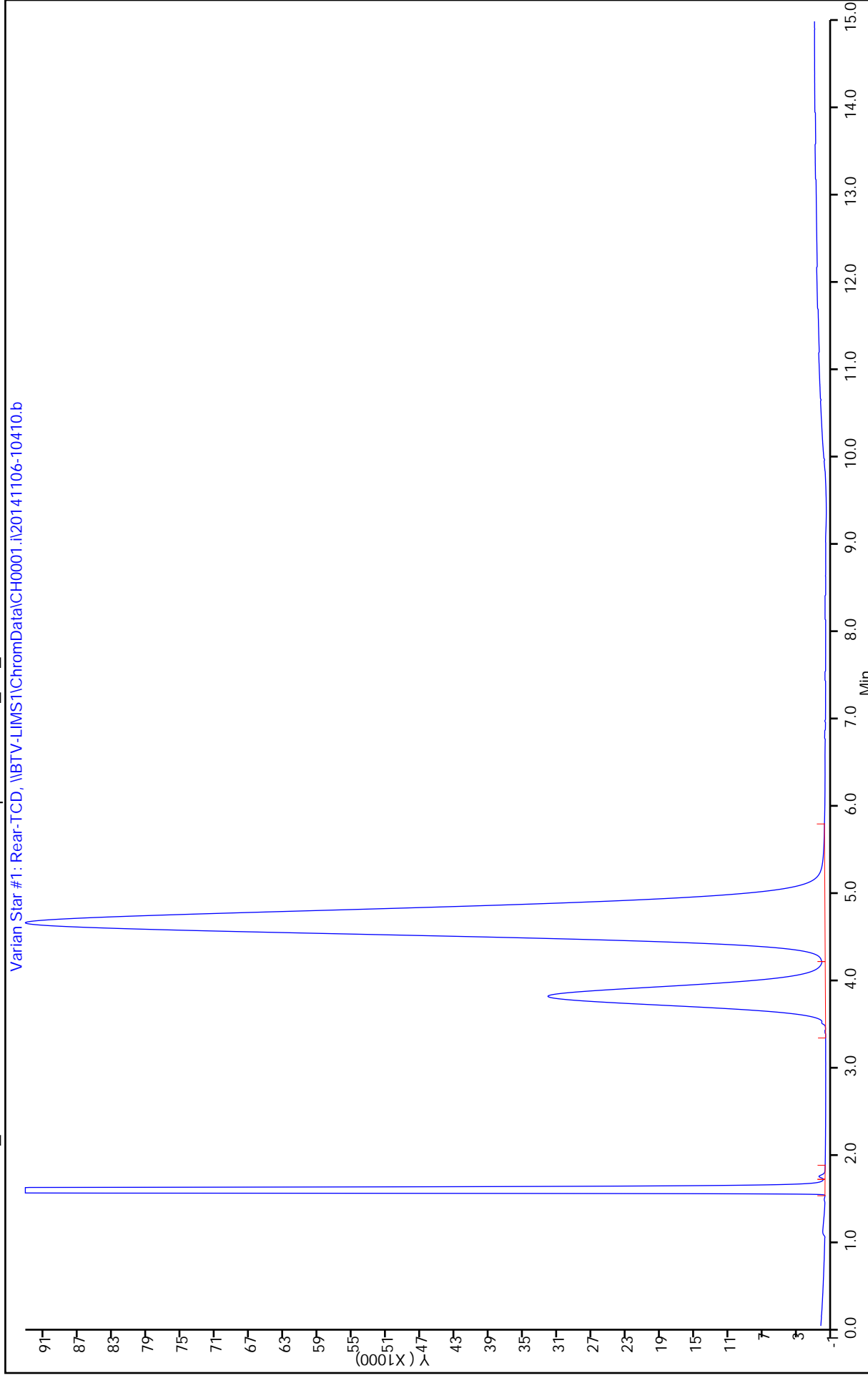
Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

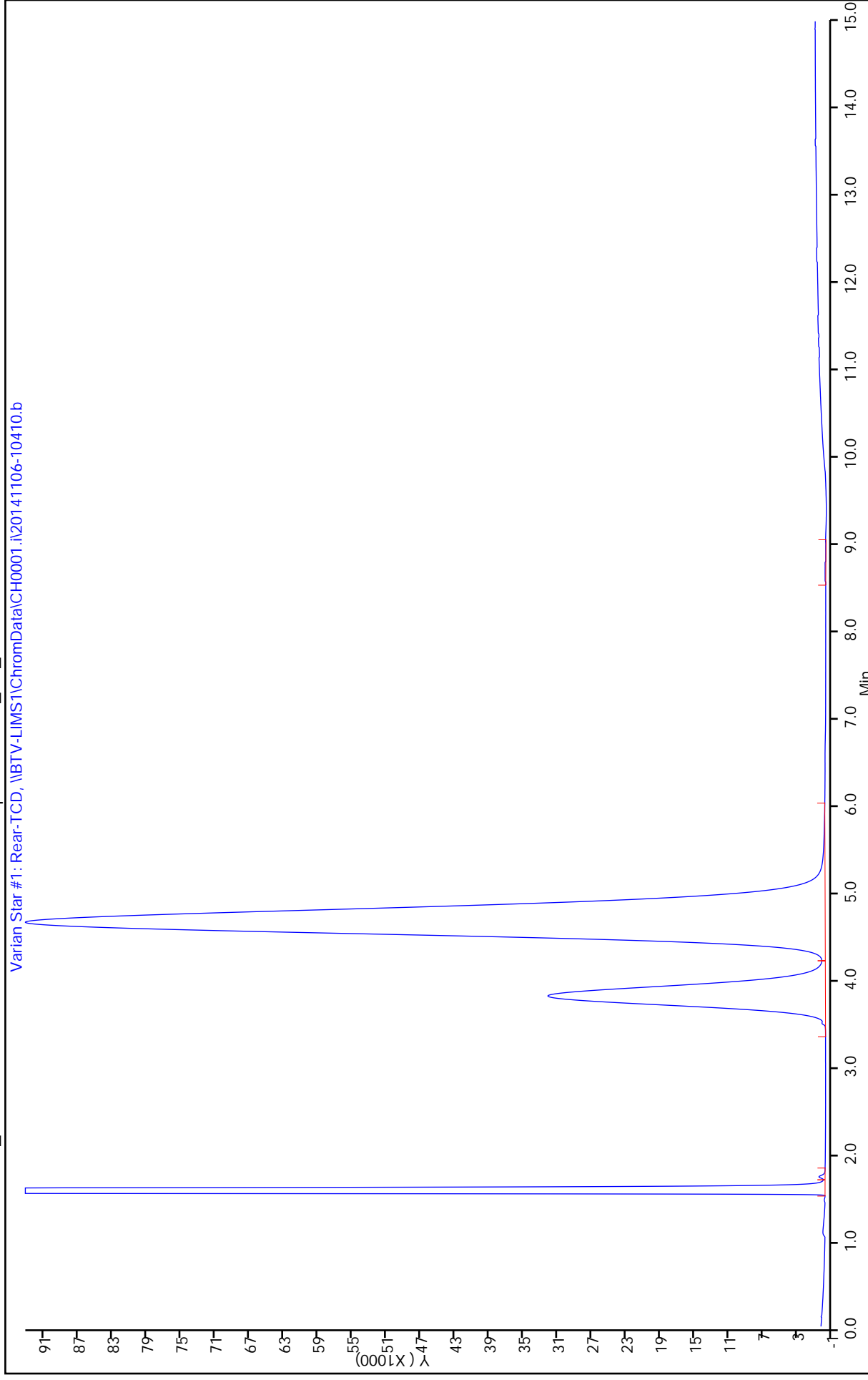
Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-252225-a-3@1.45001.d
Injection Date: 06-Nov-2014 16:20:16 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-252225-A-3 Lab Sample ID: 200-252225-3 Worklist Smp#: 20
Client ID: IA-M3 Dil. Factor: 1.4500 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-252225-a-3@1.45.d
Injection Date: 06-Nov-2014 16:04:23 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-252225-A-3 Lab Sample ID: 200-252225-3 Worklist Smp#: 19
Client ID: IA-M3 Dil. Factor: 1.4500 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits

Method: EPA3C_CH0001.i



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M4 Lab Sample ID: 200-25225-4
 Matrix: Air Lab File ID: 200-25225-a-4@1.49001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:29
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 17:07
 Soil Aliquot Vol: _____ Dilution Factor: 1.49
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.060	U	0.060	0.060

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-4@1.49001.d
 Lims ID: 200-25225-A-4 Lab Sample ID: 200-25225-4
 Client ID: IA-M4
 Sample Type: Client
 Inject. Date: 06-Nov-2014 17:07:55 ALS Bottle#: 0 Worklist Smp#: 23
 Purge Vol: 2.000 mL Dil. Factor: 1.4900
 Sample Info: 200-25225-A-4@1.49
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-4@1.49.d
 Lims ID: 200-25225-A-4 Lab Sample ID: 200-25225-4
 Client ID: IA-M4
 Sample Type: Client
 Inject. Date: 06-Nov-2014 16:52:03 ALS Bottle#: 0 Worklist Smp#: 22
 Purge Vol: 2.000 mL Dil. Factor: 1.4900
 Sample Info: 200-25225-A-4@1.49
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-4@1.49001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-4@1.49-80047-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-4@1.49001.d

Injection Date: 06-Nov-2014 17:07:55

Operator ID: BPL

Lims ID: 200-25225-A-4

Worklist Smp#: 23

Client ID: IA-M4

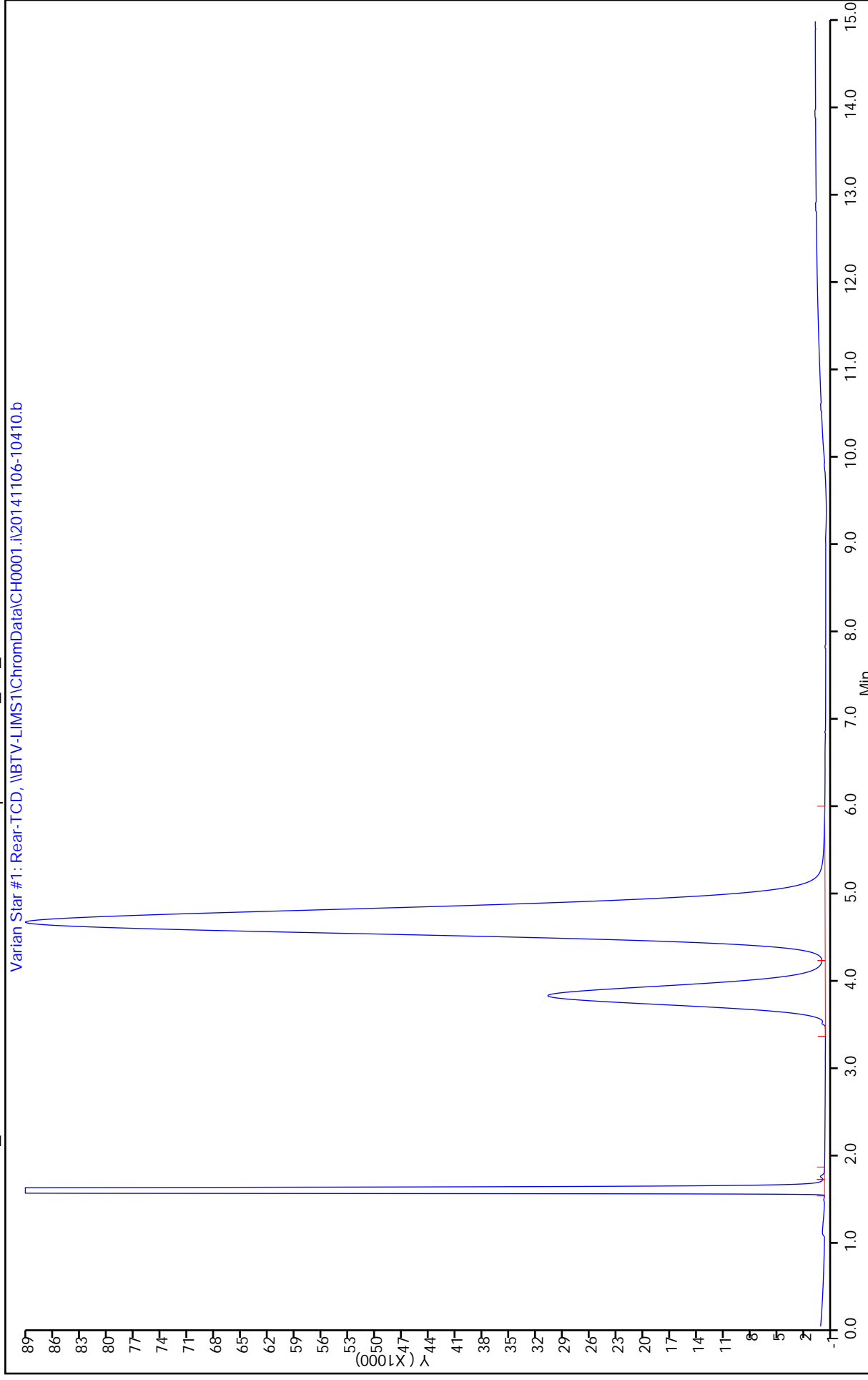
Purge Vol: 2.000 mL

ALS Bottle#: 0

Method: EPA3C_CH00001.i

Dil. Factor: 1.4900

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-4@1.49.d

Injection Date: 06-Nov-2014 16:52:03

Operator ID: BPL

Lims ID: 200-25225-A-4

Worklist Smp#: 22

Client ID: IA-M4

Purge Vol: 2.000 mL

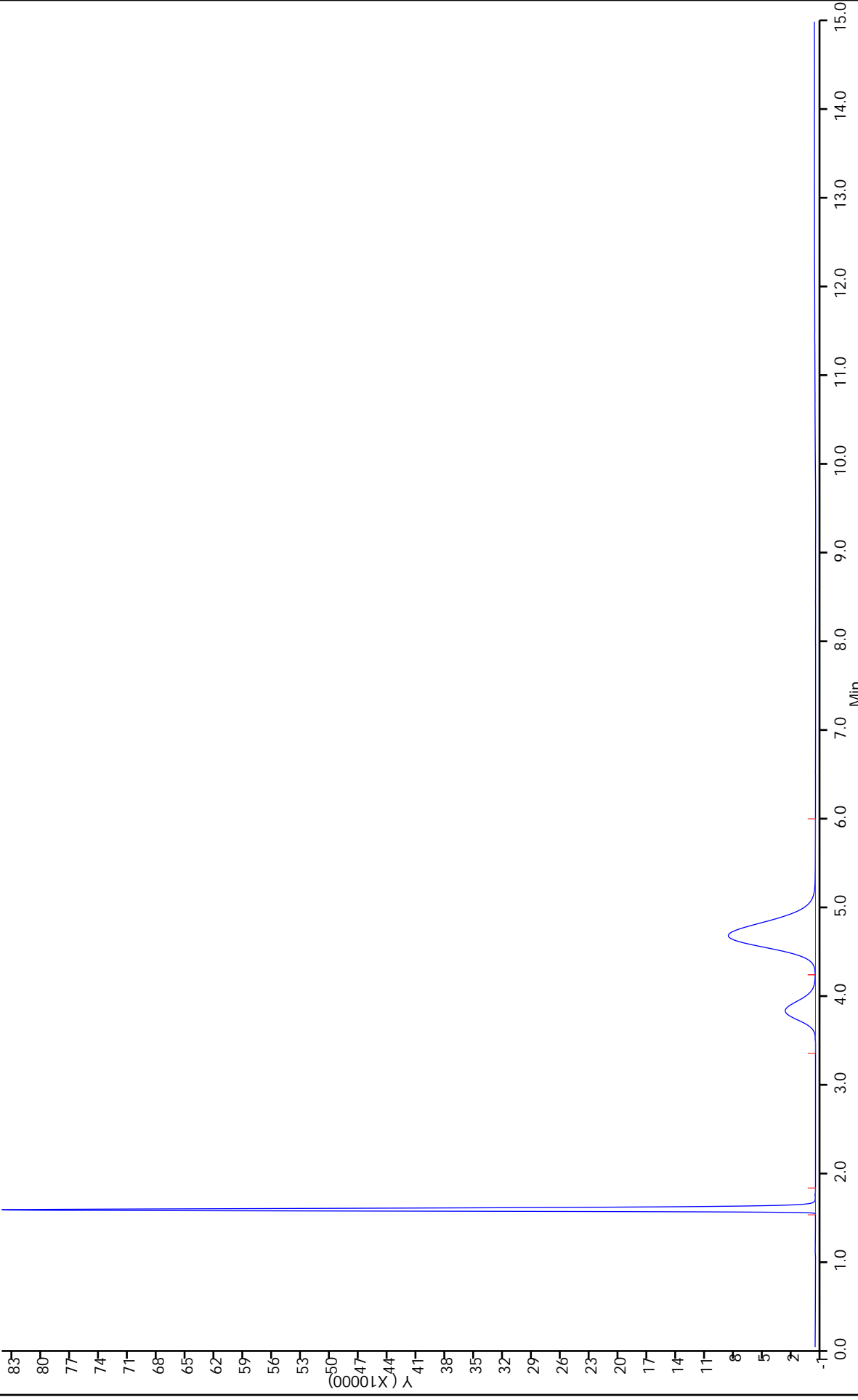
Dil. Factor: 1.4900

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits

Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M4 FD Lab Sample ID: 200-25225-5
 Matrix: Air Lab File ID: 200-25225-a-5@1.36001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:29
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 17:55
 Soil Aliquot Vol: _____ Dilution Factor: 1.36
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.054	U	0.054	0.054

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-5@1.36001.d
 Lims ID: 200-25225-A-5 Lab Sample ID: 200-25225-5
 Client ID: IA-M4 FD
 Sample Type: Client
 Inject. Date: 06-Nov-2014 17:55:33 ALS Bottle#: 0 Worklist Smp#: 26
 Purge Vol: 2.000 mL Dil. Factor: 1.3600
 Sample Info: 200-25225-A-5@1.36
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-5@1.36.d
 Lims ID: 200-25225-A-5 Lab Sample ID: 200-25225-5
 Client ID: IA-M4 FD
 Sample Type: Client
 Inject. Date: 06-Nov-2014 17:39:41 ALS Bottle#: 0 Worklist Smp#: 25
 Purge Vol: 2.000 mL Dil. Factor: 1.3600
 Sample Info: 200-25225-A-5@1.36
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 08:54:22 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-5@1.36001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-5@1.36-80047-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-5@1.36001.d

Injection Date: 06-Nov-2014 17:55:33

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: 200-25225-A-5

Lab Sample ID: 200-25225-5

Worklist Smp#: 26

Client ID: IA-M4 FD

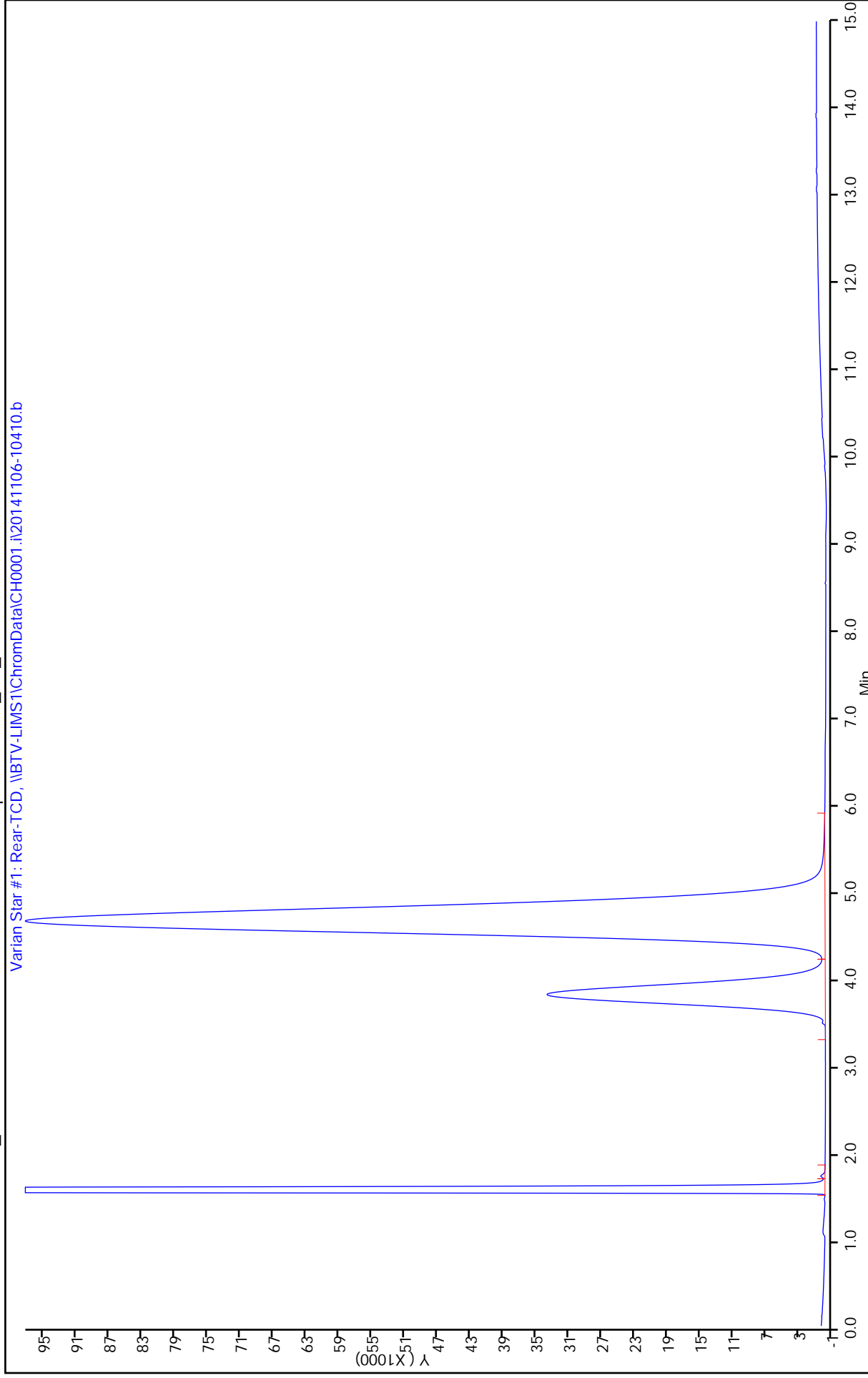
Dil. Factor: 1.3600

ALS Bottle#: 0

Purge Vol: 2.000 mL

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits

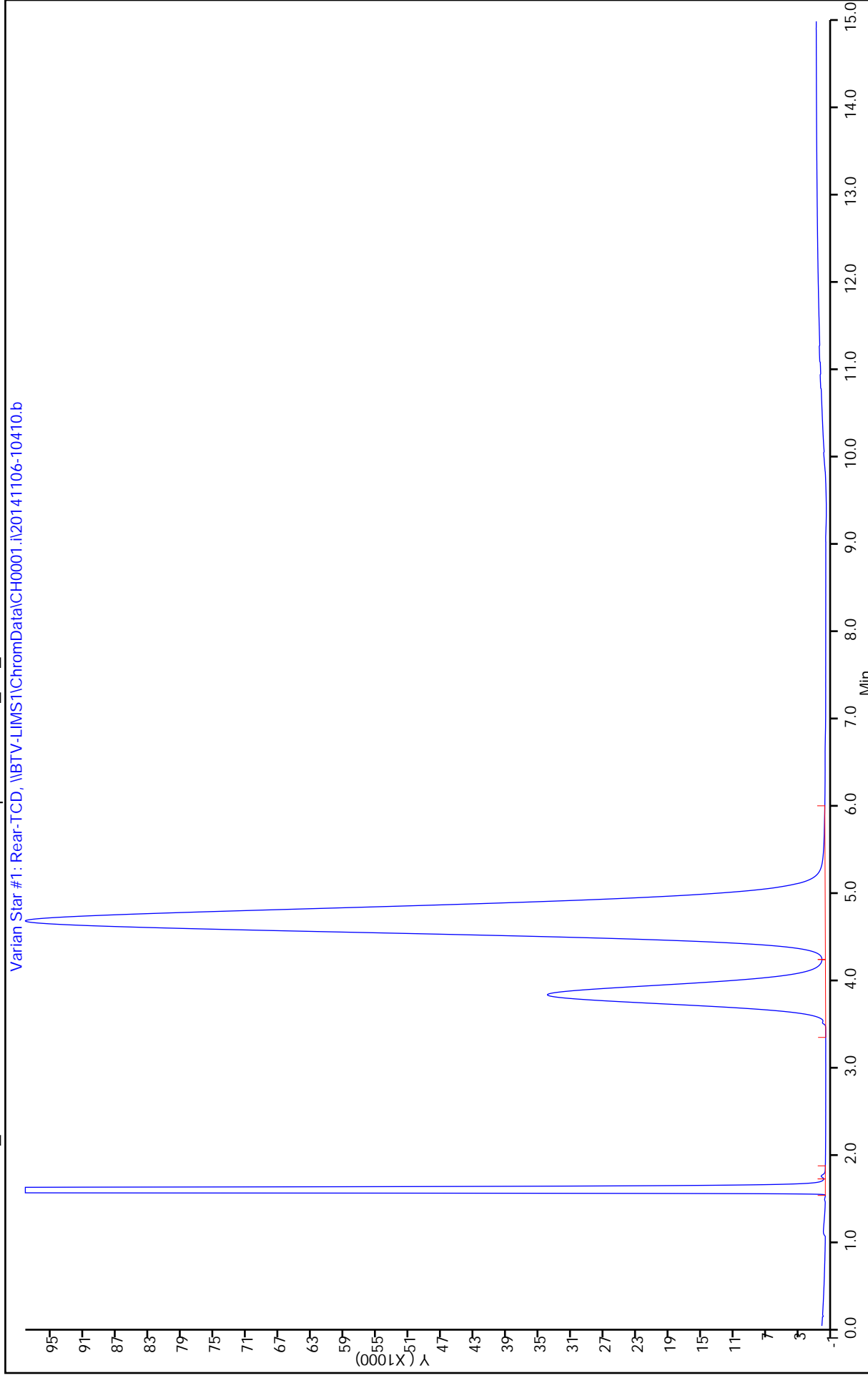


TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-252225-a-5@1.36.d
Injection Date: 06-Nov-2014 17:39:41
Lims ID: 200-25225-A-5
Client ID: IA-M4 FD
Purge Vol: 2.000 mL
Method: EPA3C_CH00001.i

Operator ID: BPL
Worklist Smp#: 25
ALS Bottle#: 0

Dil. Factor: 1.3600
Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M5 Lab Sample ID: 200-25225-6
 Matrix: Air Lab File ID: 200-25225-a-6@1.43001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:37
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 08:42
 Soil Aliquot Vol: _____ Dilution Factor: 1.43
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.057	U	0.057	0.057

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-6@1.43001.d
 Lims ID: 200-25225-A-6 Lab Sample ID: 200-25225-6
 Client ID: IA-M5
 Sample Type: Client
 Inject. Date: 07-Nov-2014 08:42:33 ALS Bottle#: 0 Worklist Smp#: 29
 Purge Vol: 2.000 mL Dil. Factor: 1.4300
 Sample Info: 200-25225-A-6@1.43
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 09:41:07 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-6@1.43002.d
 Lims ID: 200-25225-A-6 Lab Sample ID: 200-25225-6
 Client ID: IA-M5
 Sample Type: Client
 Inject. Date: 07-Nov-2014 08:58:26 ALS Bottle#: 0 Worklist Smp#: 30
 Purge Vol: 2.000 mL Dil. Factor: 1.4300
 Sample Info: 200-25225-A-6@1.43
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 09:41:07 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-6@1.43001-8004

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-6@1.43002-8004

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

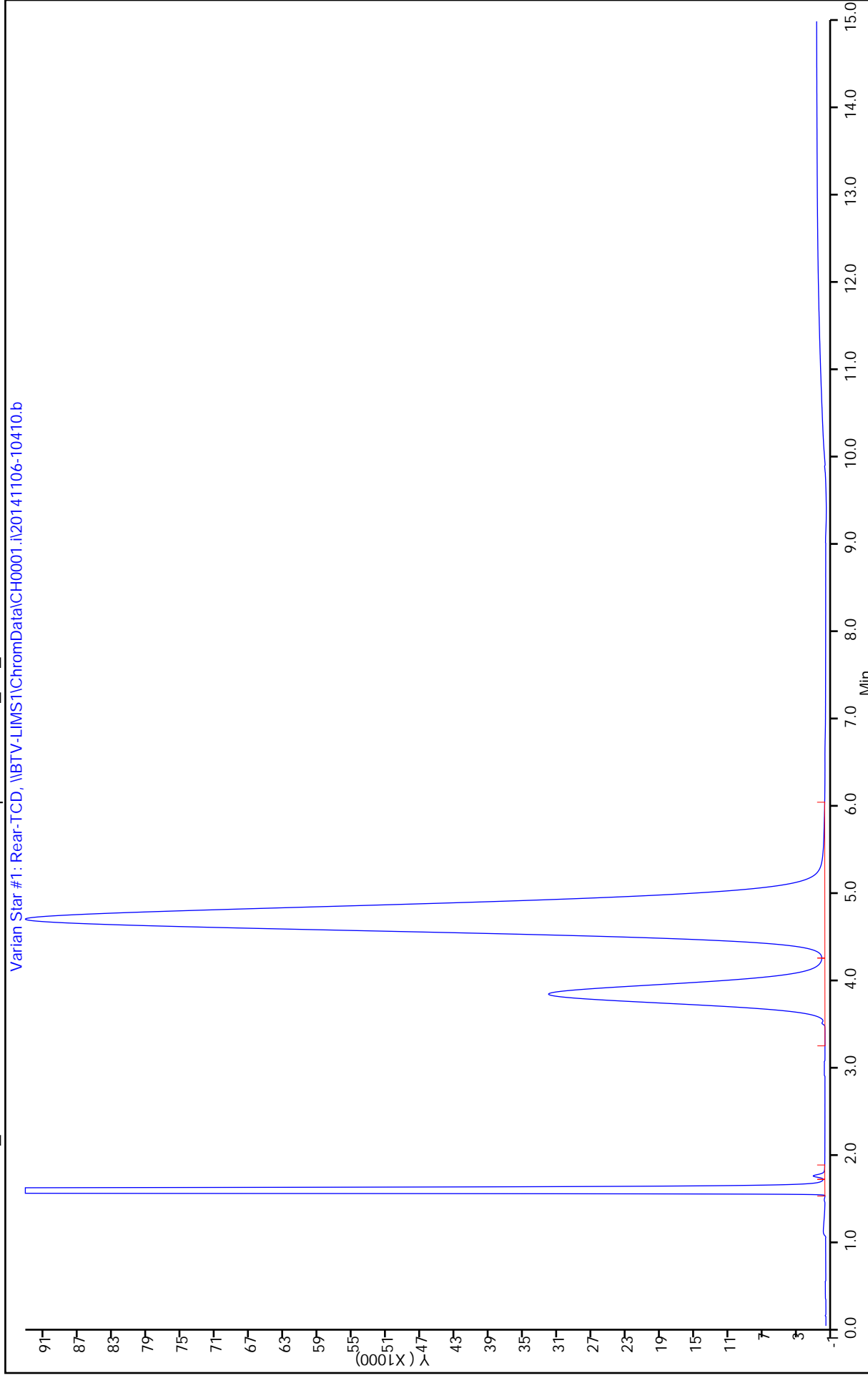
Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-6@1.43001.d
Injection Date: 07-Nov-2014 08:42:33 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-6 Lab Sample ID: 200-25225-6 Worklist Smp#: 29
Client ID: IA-M5 Dil. Factor: 1.4300 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i

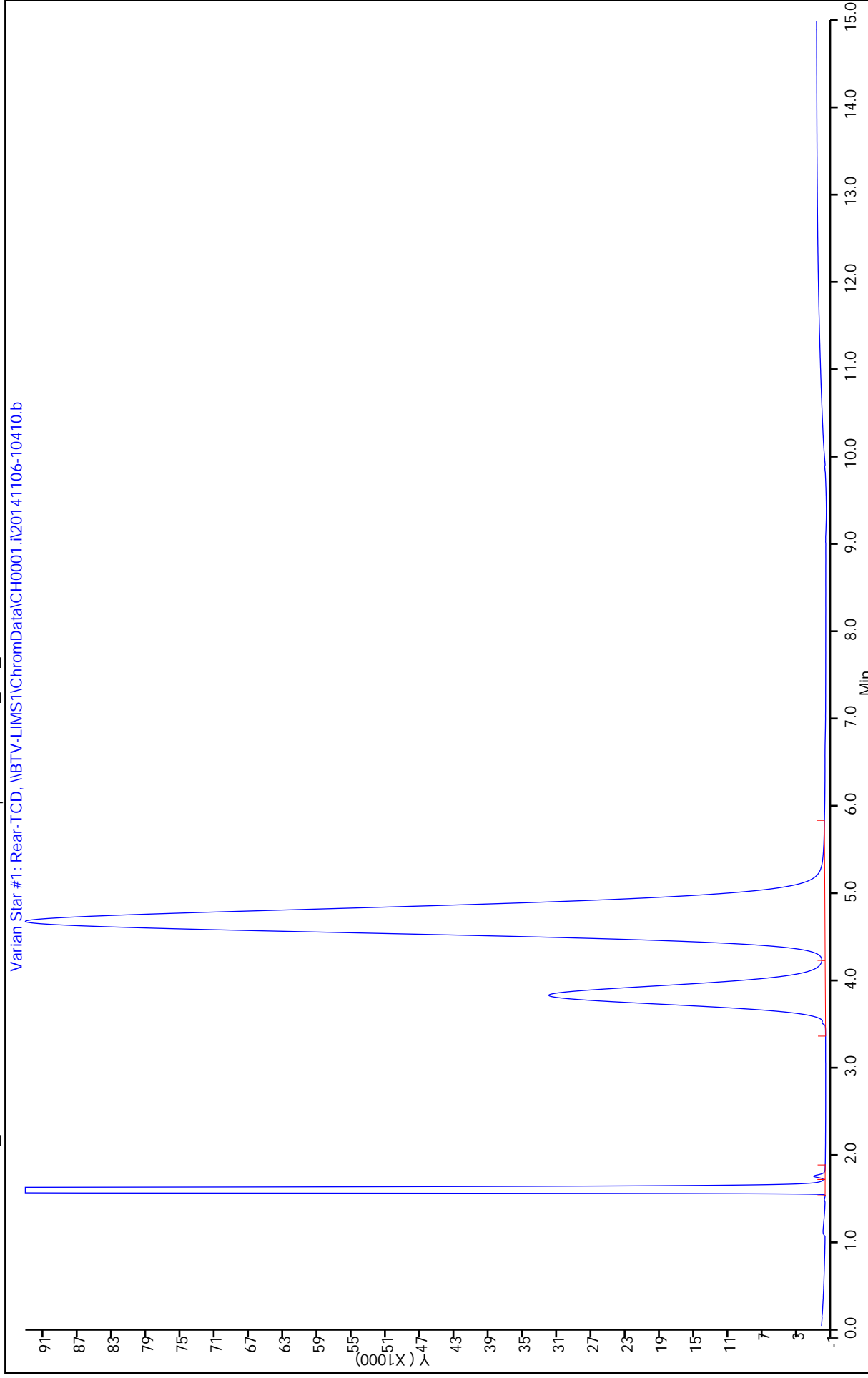


TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\200-25225-a-6@1.43002.d
Injection Date: 07-Nov-2014 08:58:26
Lims ID: 200-25225-A-6
Client ID: IA-M5
Purge Vol: 2.000 mL
Method: EPA3C_CH00001.i

Operator ID: BPL
Worklist Smp#: 30
ALS Bottle#: 0

Dil. Factor: 1.4300
Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M6 Lab Sample ID: 200-25225-7
 Matrix: Air Lab File ID: 200-25225-a-7@1.48001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:46
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 11:30
 Soil Aliquot Vol: _____ Dilution Factor: 1.48
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80131 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.059	U	0.059	0.059

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-7@1.48001.d
 Lims ID: 200-25225-A-7 Lab Sample ID: 200-25225-7
 Client ID: IA-M6
 Sample Type: Client
 Inject. Date: 07-Nov-2014 11:30:58 ALS Bottle#: 0 Worklist Smp#: 10
 Purge Vol: 2.000 mL Dil. Factor: 1.4800
 Sample Info: 200-25225-A-7@1.48
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:54:14 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-7@1.48.d
 Lims ID: 200-25225-A-7 Lab Sample ID: 200-25225-7
 Client ID: IA-M6
 Sample Type: Client
 Inject. Date: 07-Nov-2014 11:15:05 ALS Bottle#: 0 Worklist Smp#: 9
 Purge Vol: 2.000 mL Dil. Factor: 1.4800
 Sample Info: 200-25225-A-7@1.48
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:54:14 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dit RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-7@1.48001-8010

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-7@1.48-80105-a

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-7@1.48001.d

Injection Date: 07-Nov-2014 11:30:58

Operator ID: BPL

Lims ID: 200-25225-A-7

Worklist Smp#: 10

Client ID: IA-M6

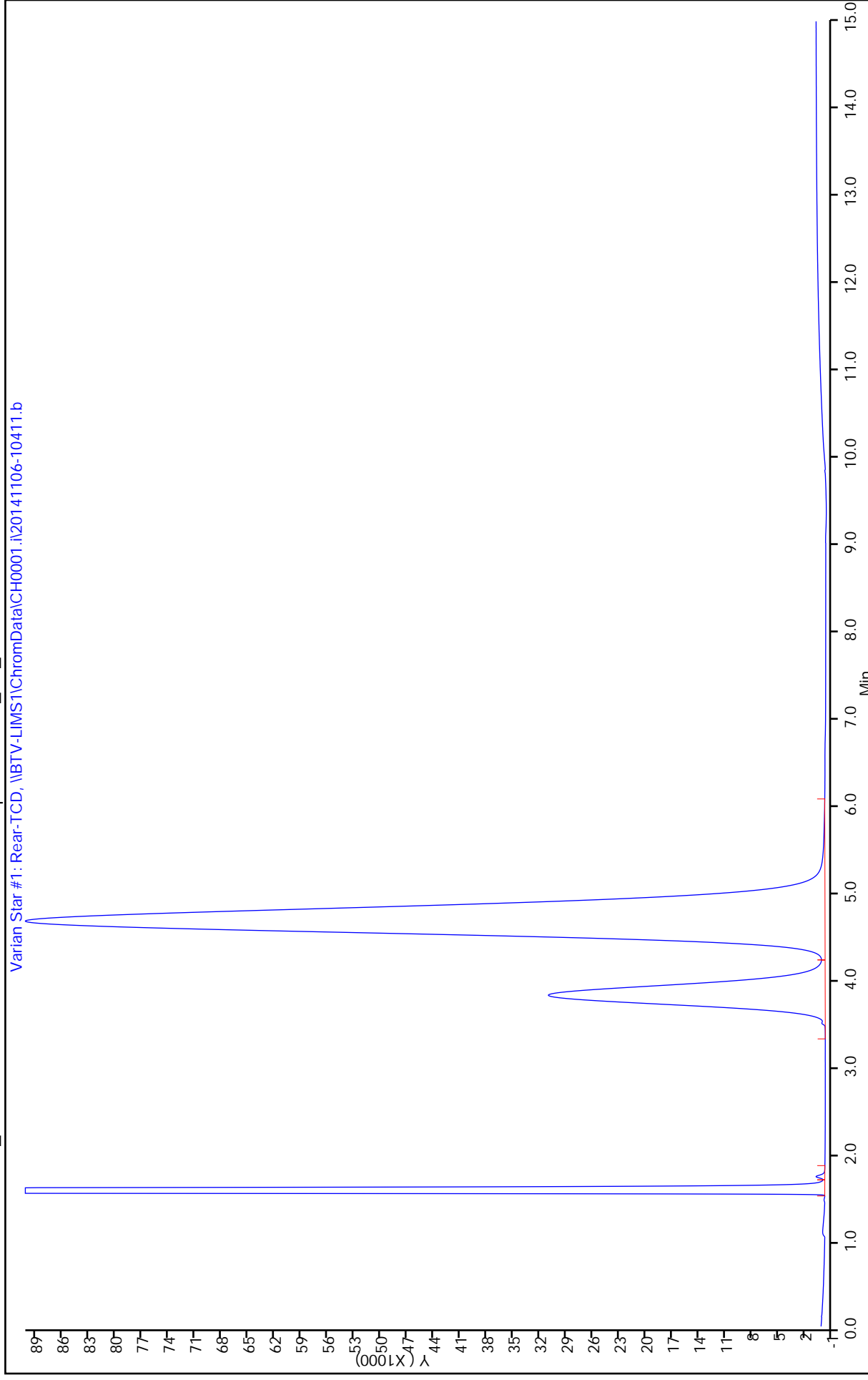
Purge Vol: 2.000 mL

Dil. Factor: 1.4800

ALS Bottle#: 0

Method: EPA3C_CH0001.i

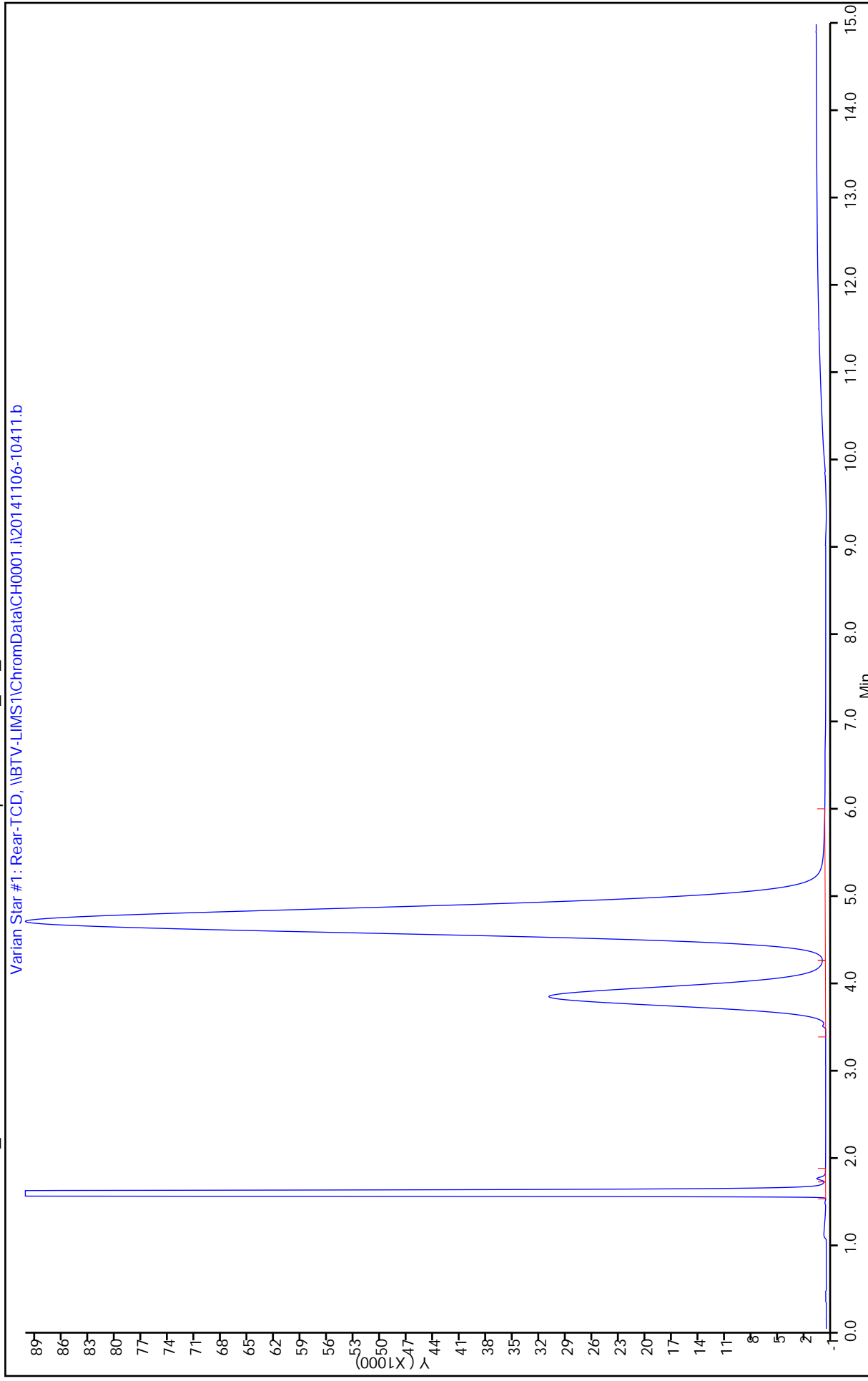
Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-7@1.48.d
Injection Date: 07-Nov-2014 11:15:05 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-7 Lab Sample ID: 200-25225-7 Worklist Smp#: 9
Client ID: IA-M6 Dil. Factor: 1.4800 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits

Method: EPA3C_CH0001.i



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M7 Lab Sample ID: 200-25225-8
 Matrix: Air Lab File ID: 200-25225-a-8@1.38001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 15:55
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 12:02
 Soil Aliquot Vol: _____ Dilution Factor: 1.38
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80131 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.055	U	0.055	0.055

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-8@1.38001.d
 Lims ID: 200-25225-A-8 Lab Sample ID: 200-25225-8
 Client ID: IA-M7
 Sample Type: Client
 Inject. Date: 07-Nov-2014 12:02:43 ALS Bottle#: 0 Worklist Smp#: 12
 Purge Vol: 2.000 mL Dil. Factor: 1.3800
 Sample Info: 200-25225-A-8@1.38
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:03:25 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-8@1.38.d
 Lims ID: 200-25225-A-8 Lab Sample ID: 200-25225-8
 Client ID: IA-M7
 Sample Type: Client
 Inject. Date: 07-Nov-2014 11:46:50 ALS Bottle#: 0 Worklist Smp#: 11
 Purge Vol: 2.000 mL Dil. Factor: 1.3800
 Sample Info: 200-25225-A-8@1.38
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:03:25 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-8@1.38001-8010

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-8@1.38-80105-a

Raw Results - Fixed Gases

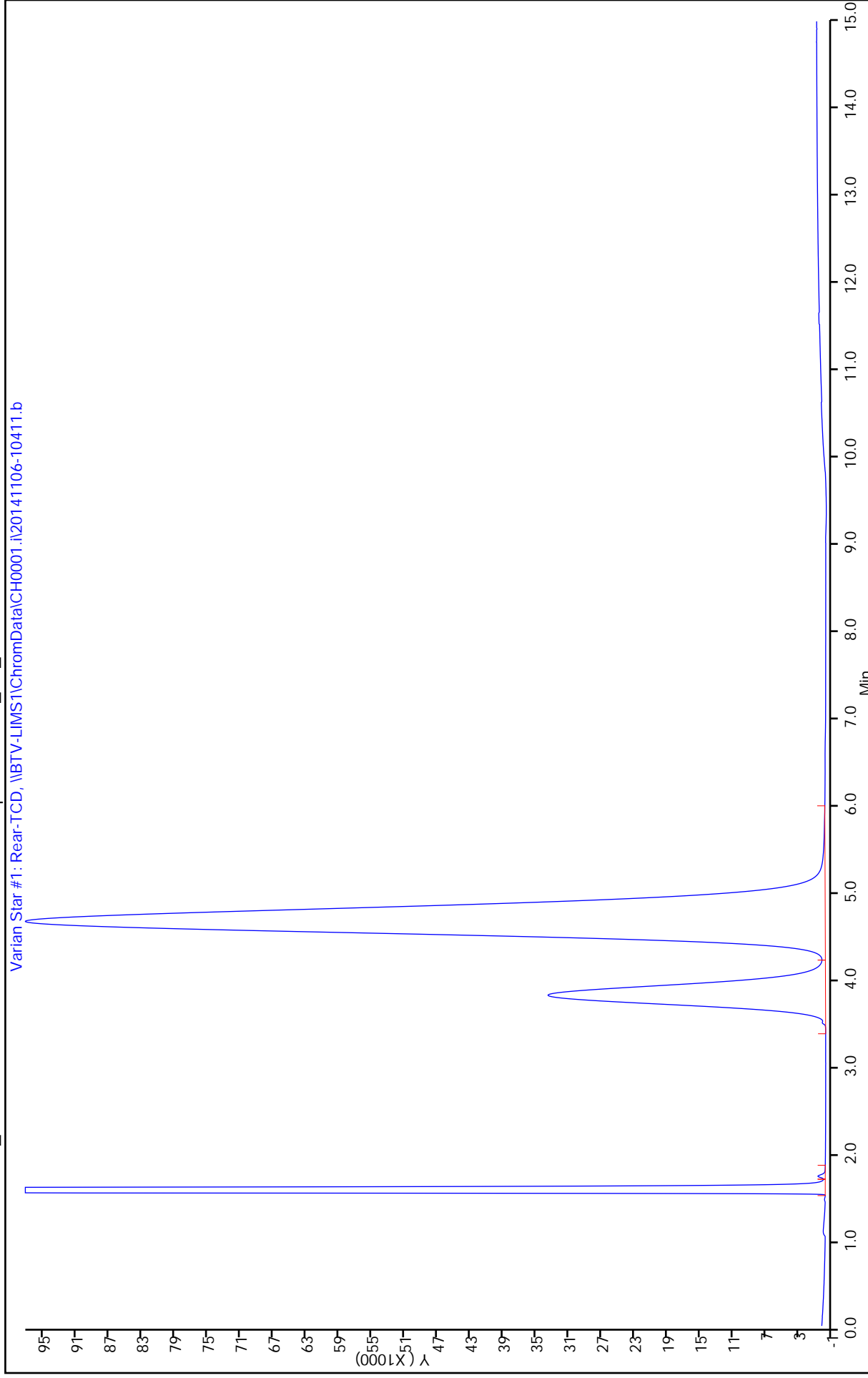
Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

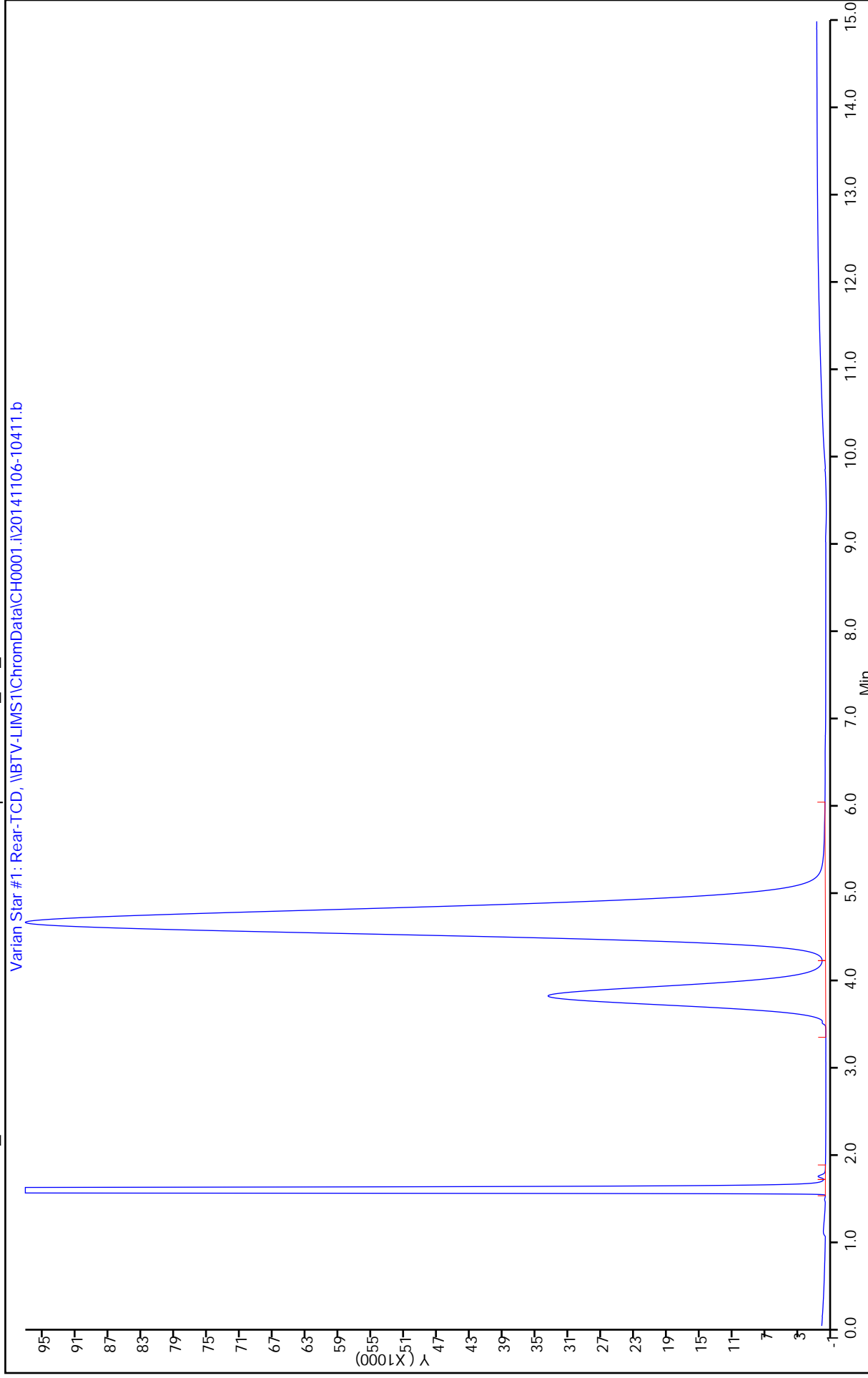
Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-8@1.38001.d
Injection Date: 07-Nov-2014 12:02:43 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-8 Lab Sample ID: 200-25225-8 Worklist Smp#: 12
Client ID: IA-M7 Dil. Factor: 1.3800 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-8@1.38.d
Injection Date: 07-Nov-2014 11:46:50 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-8 Lab Sample ID: 200-25225-8 Worklist Smp#: 11
Client ID: IA-M7 Dil. Factor: 1.3800 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits

Method: EPA3C_CH0001.i



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: IA-M8 Lab Sample ID: 200-25225-9
 Matrix: Air Lab File ID: 200-25225-a-9@1.41001.d-avg
 Analysis Method: EPA 3C Date Collected: 11/05/2014 16:15
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 12:34
 Soil Aliquot Vol: _____ Dilution Factor: 1.41
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80131 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.056	U	0.056	0.056

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-9@1.41001.d
 Lims ID: 200-25225-A-9 Lab Sample ID: 200-25225-9
 Client ID: IA-M8
 Sample Type: Client
 Inject. Date: 07-Nov-2014 12:34:27 ALS Bottle#: 0 Worklist Smp#: 14
 Purge Vol: 2.000 mL Dil. Factor: 1.4100
 Sample Info: 200-25225-A-9@1.41
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:03:25 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-9@1.41.d
 Lims ID: 200-25225-A-9 Lab Sample ID: 200-25225-9
 Client ID: IA-M8
 Sample Type: Client
 Inject. Date: 07-Nov-2014 12:18:35 ALS Bottle#: 0 Worklist Smp#: 13
 Purge Vol: 2.000 mL Dil. Factor: 1.4100
 Sample Info: 200-25225-A-9@1.41
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:03:25 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 07-Nov-2014 13:03:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt % v/v	Flags
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Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-9@1.41001-8010

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\200-25225-a-9@1.41-80105-a

Raw Results - Fixed Gases

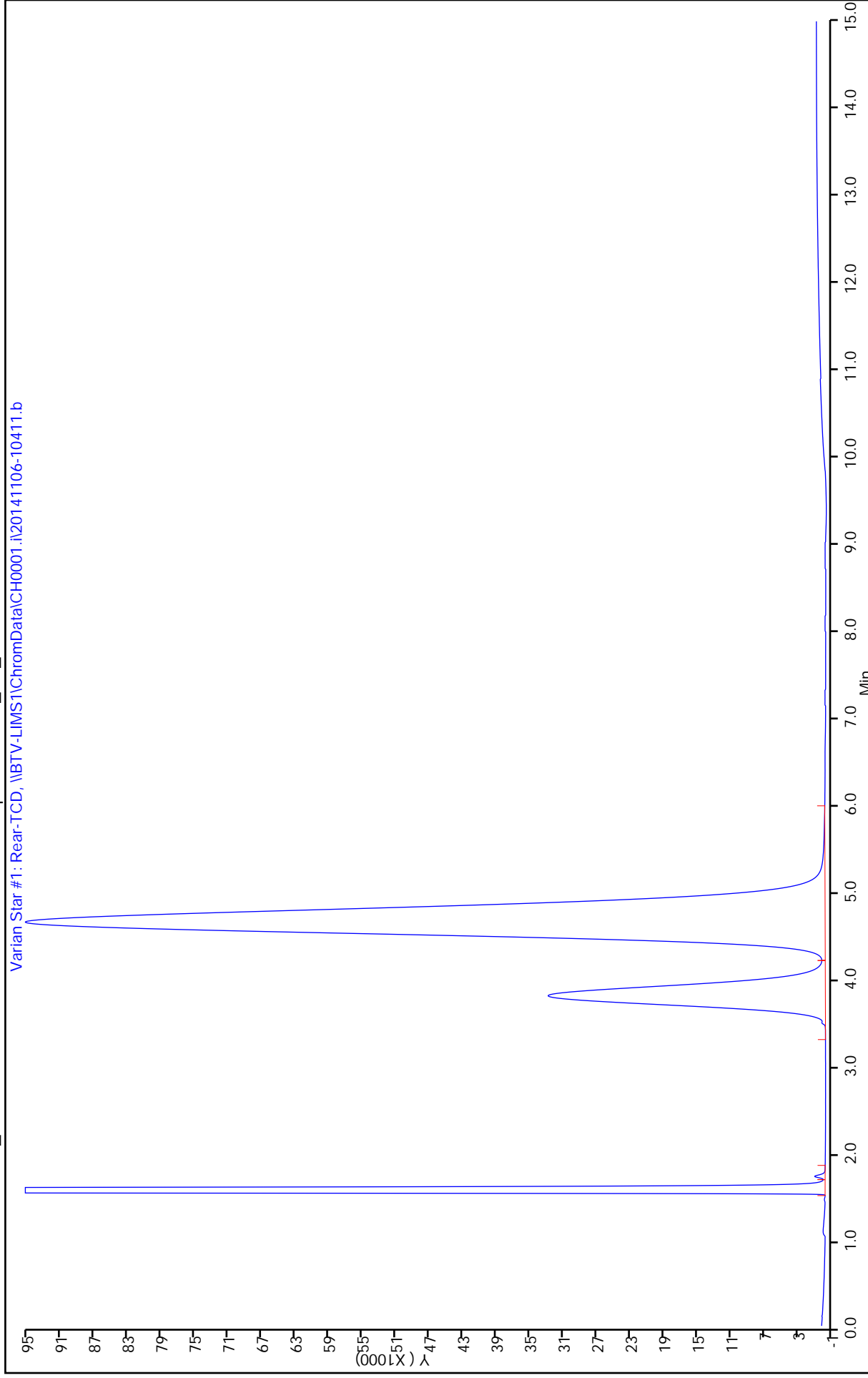
Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	0	0	0	0

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-9@1.41001.d
Injection Date: 07-Nov-2014 12:34:27 Instrument ID: CH0001.i Operator ID: BPL
Lims ID: 200-25225-A-9 Lab Sample ID: 200-25225-9 Worklist Smp#: 14
Client ID: IA-M8 Dil. Factor: 1.4100 ALS Bottle#: 0
Purge Vol: 2.000 mL Limit Group: AI_3C_Limits
Method: EPA3C_CH0001.i

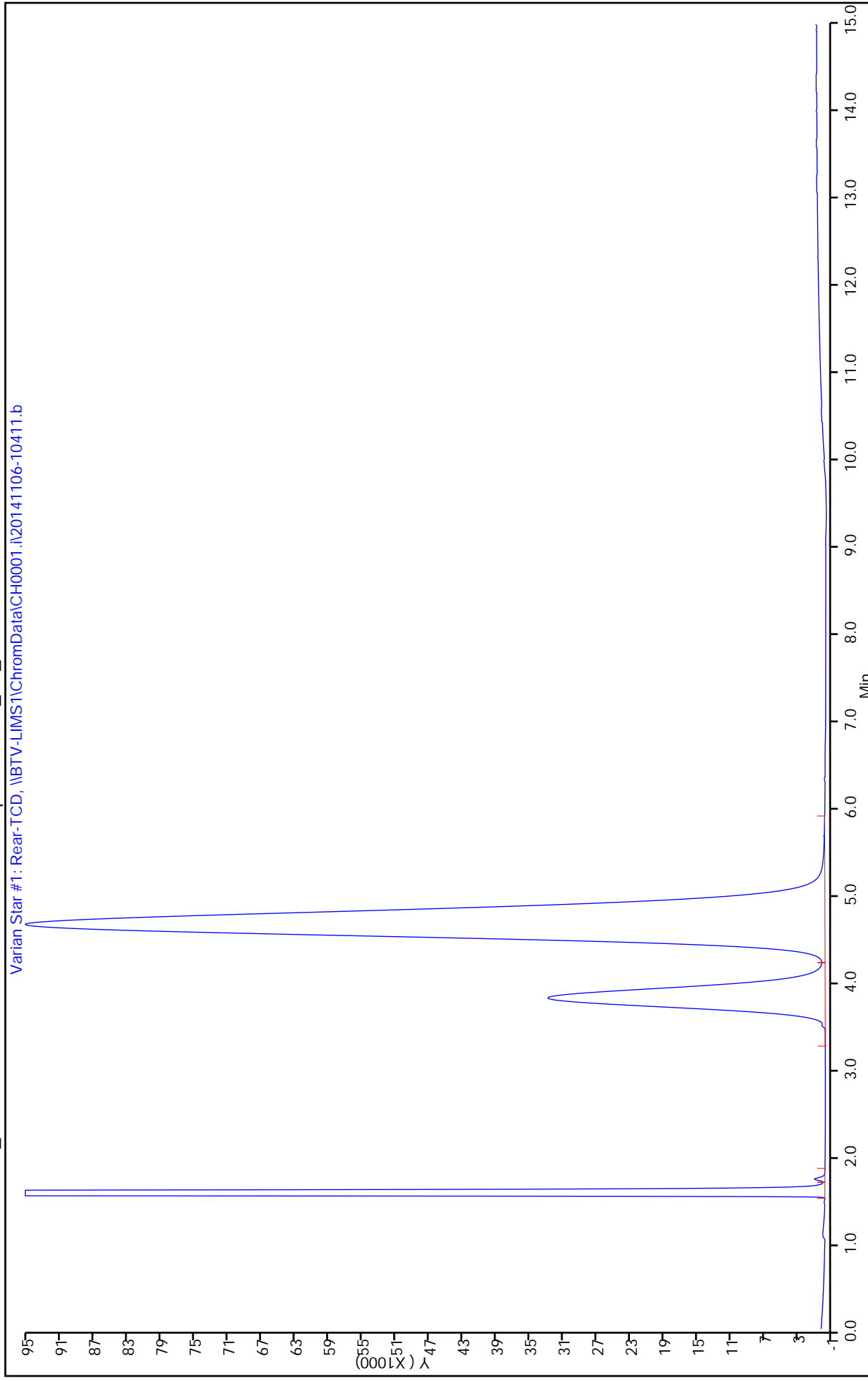


TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\200-25225-a-9@1.41.d
Injection Date: 07-Nov-2014 12:18:35
Lims ID: 200-25225-A-9
Client ID: IA-M8
Purge Vol: 2.000 mL
Method: EPA3C_CH0001.i

Operator ID: BPL
Worklist Smp#: 13
ALS Bottle#: 0

Dil. Factor: 1.4100
Limit Group: AI_3C_Limits



FORM VI
 AIR - GC VOA INITIAL CALIBRATION DATA
 EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-25225-1 Analy Batch No.: 72381

SDG No.: 200-25225-1

Instrument ID: CH0001.i GC Column: CTR-1 ID: 3.175(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2014 11:18 Calibration End Date: 05/20/2014 10:29 Calibration ID: 26890

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-72381/4	3cic1051914B.d-avg
Level 2	IC 200-72381/9	3cic10051914A.d-avg
Level 3	IC 200-72381/5	3cic2051914A.d-avg
Level 4	IC 200-72381/6	3cic3051914B.d-avg
Level 5	ICIS 200-72381/1	3cicis051914B.d-avg
Level 6	IC 200-72381/10	3cic09051914A.d-avg
Level 7	IC 200-72381/7	3cic5051914B.d-avg
Level 8	IC 200-72381/3	3cic8051914B.d-avg
Level 9	IC 200-72381/2	3cic6051914B.d-avg
Level 10	IC 200-72381/8	3cic7051914B.d-avg

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	RT WINDOW	AVG RT
Carbon dioxide	1.722		1.722	1.718	1.722				1.690		1.472 - 1.972	1.715
Oxygen	3.814		3.829	3.815	3.825		3.800				3.575 - 4.075	3.817
Nitrogen			4.717	4.698	4.717		4.647			4.630	4.467 - 4.967	4.682
Methane	6.579		6.524	6.503	6.531			6.426			6.281 - 6.781	6.513
Carbon monoxide		7.024	7.036	7.020	7.062	7.086					6.812 - 7.312	7.046

FORM VI
 AIR - GC VOA INITIAL CALIBRATION DATA
 EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-25225-1 Analy Batch No.: 72381

SDG No.: 200-25225-1

Instrument ID: CH0001.i GC Column: CTR-1 ID: 3.175(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2014 11:18 Calibration End Date: 05/20/2014 10:29 Calibration ID: 26890

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-72381/4	3cic1051914B.d-avg
Level 2	IC 200-72381/9	3cic10051914A.d-avg
Level 3	IC 200-72381/5	3cic2051914A.d-avg
Level 4	IC 200-72381/6	3cic3051914B.d-avg
Level 5	ICIS 200-72381/1	3cicis051914B.d-avg
Level 6	IC 200-72381/10	3cic09051914A.d-avg
Level 7	IC 200-72381/7	3cic5051914B.d-avg
Level 8	IC 200-72381/3	3cic8051914B.d-avg
Level 9	IC 200-72381/2	3cic6051914B.d-avg
Level 10	IC 200-72381/8	3cic7051914B.d-avg

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6 LVL 10	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Carbon dioxide	33340 33742 32442		35161	32311	Ave		33413.4918			3.1			20.0			
Oxygen	43840 32792		34615 31304	32146	Ave		34726.7810			13.0			20.0			
Nitrogen	36096	35833	42923 36559	37114	Ave		37541.2509			7.2			20.0			
Methane	37638 27589		30244	25700 31327	Ave		30353.6191			14.0			20.0			
Carbon monoxide	37860	28505 33901	37230	36755	Ave		35076.1545			10.0			20.0			

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

FORM VI
 AIR - GC VOA INITIAL CALIBRATION DATA
 EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-25225-1 Analy Batch No.: 72381

SDG No.: 200-25225-1

Instrument ID: CH0001.i GC Column: CTR-1 ID: 3.175(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2014 11:18 Calibration End Date: 05/20/2014 10:29 Calibration ID: 26890

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-72381/4	3cic1051914B.d-avg
Level 2	IC 200-72381/9	3cic10051914A.d-avg
Level 3	IC 200-72381/5	3cic2051914A.d-avg
Level 4	IC 200-72381/6	3cic3051914B.d-avg
Level 5	ICIS 200-72381/1	3cicis051914B.d-avg
Level 6	IC 200-72381/10	3cic09051914A.d-avg
Level 7	IC 200-72381/7	3cic5051914B.d-avg
Level 8	IC 200-72381/3	3cic8051914B.d-avg
Level 9	IC 200-72381/2	3cic6051914B.d-avg
Level 10	IC 200-72381/8	3cic7051914B.d-avg

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (% V/V)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9	LVL 10	LVL 6	LVL 7	LVL 8	LVL 9	LVL 10
Carbon dioxide	Ave	1667		17581	80778 3244211	168709	0.0500		0.500	2.50 100	5.00
Oxygen	Ave	2192	688684	17308	80364	163961	0.0500	22.0	0.500	2.50	5.00
Nitrogen	Ave		2851579	21462	92785	180480 3583277		78.0	0.500	2.50	5.00 100
Methane	Ave	1506		12098 3101376	51400	110357	0.0400		0.400 99.0	2.00	4.00
Carbon monoxide	Ave		2851	18615	91888	189300		0.100	0.500	2.50	5.00
		339009					10.0				

Curve Type Legend:

Ave = Average

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicis051914B.d
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 2
 Inject. Date: 19-May-2014 11:18:03 ALS Bottle#: 0 Worklist Smp#: 2
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CICIS051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:44 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 14:20:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.722	1.722	0.000	168924	5.00	5.06	
2 Oxygen	3.825	3.825	0.000	164033	5.00	4.72	
3 Nitrogen	4.717	4.717	0.000	180532	5.00	4.81	
4 Methane	6.531	6.531	0.000	109933	4.00	3.62	
5 Carbon monoxide	7.062	7.062	0.000	189696	5.00	5.41	

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicis051914C.d
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 19-May-2014 11:34:57 ALS Bottle#: 0 Worklist Smp#: 3
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CICIS051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:45 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d

Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 15:07:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.722	1.722	0.000	168494	5.00	5.04	
2 Oxygen	3.825	3.825	0.000	163889	5.00	4.72	
3 Nitrogen	4.721	4.721	0.000	180427	5.00	4.81	
4 Methane	6.532	6.532	0.000	110780	4.00	3.65	
5 Carbon monoxide	7.064	7.064	0.000	188904	5.00	5.39	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cicis051914b-72292-ai_3c

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cicis051914c-72292-ai_3c

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	168924	168494	168709	0.25
Oxygen	164033	163889	163961	0.09
Nitrogen	180532	180427	180479.5	0.06
Methane	109933	110780	110356.5	0.77
Carbon monoxide	189696	188904	189300	0.42

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.06	5.04	5.05	0.25
Oxygen	4.72	4.72	4.72	0.09
Nitrogen	4.81	4.81	4.81	0.06
Methane	3.62	3.65	3.64	0.77
Carbon monoxide	5.41	5.39	5.4	0.42

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:45

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicis051914B.d

Injection Date: 19-May-2014 11:18:03

Instrument ID: CH0001.i

Lims ID: ICIS

Operator ID: BPL

Worklist Smp#: 2

Client ID:

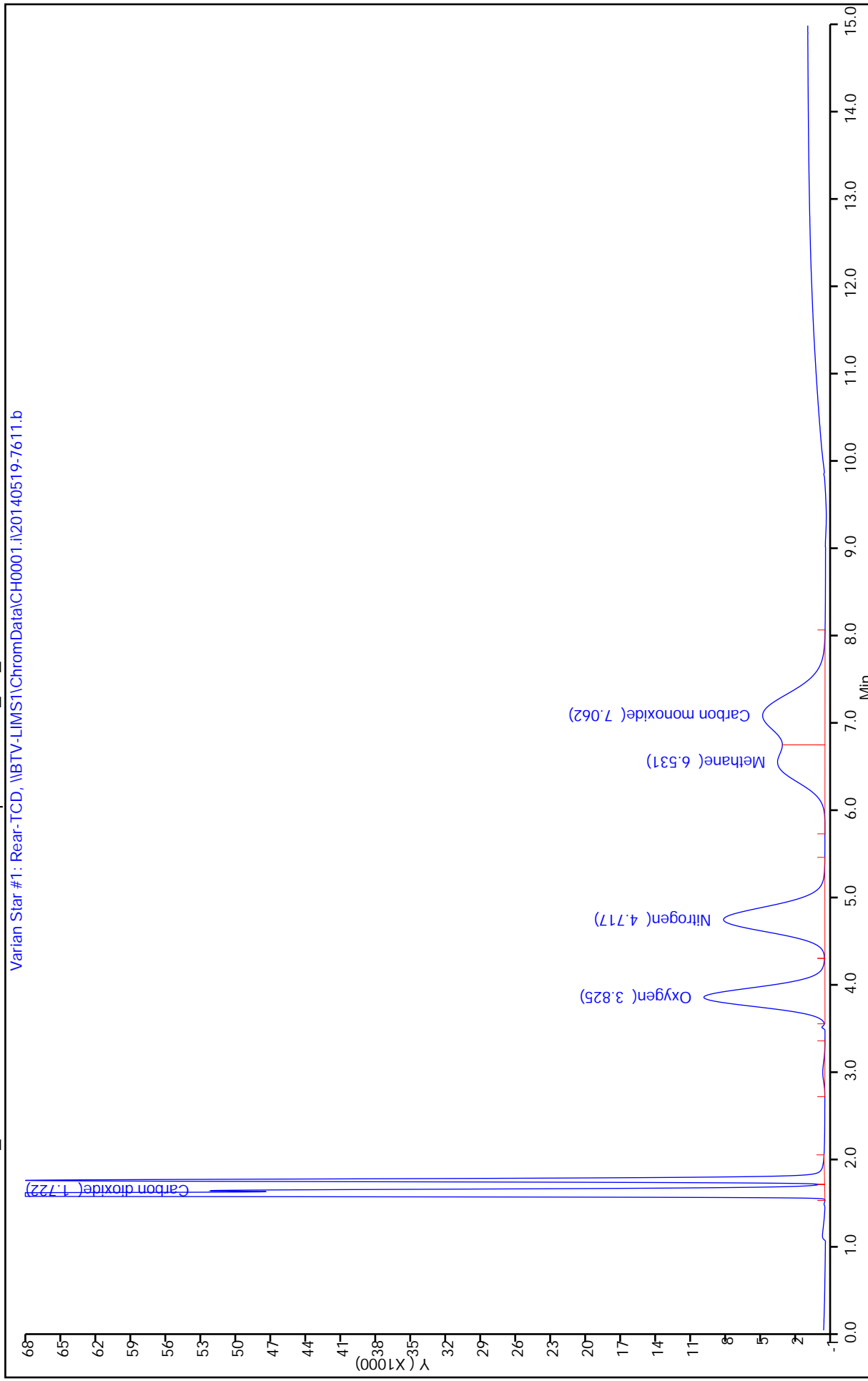
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicis051914C.d

Injection Date: 19-May-2014 11:34:57

Instrument ID: CH0001.i

Lims ID: ICIS

Operator ID: BPL

Worklist Smp#: 3

Client ID:

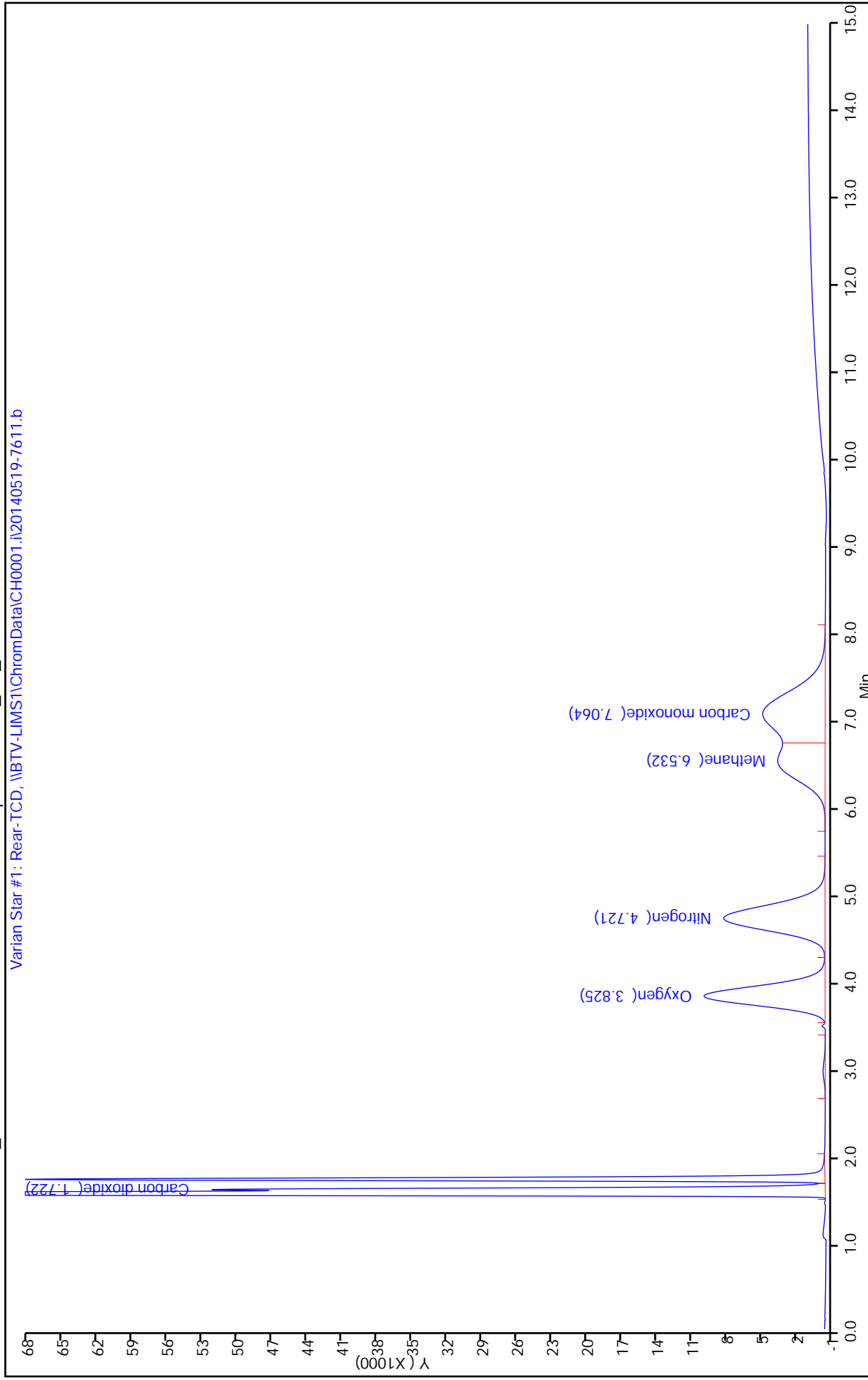
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic6051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 19-May-2014 12:08:55 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC6051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:43 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.690	1.690	0.000	3241358	100.0	97.0	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic6051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 19-May-2014 12:25:53 ALS Bottle#: 0 Worklist Smp#: 6
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC6051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:44 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.690	1.690	0.000	3247063	100.0	97.2	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic6051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic6051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	3241358	3247063	3244210.5	0.18

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	97.01	97.18	97.09	0.18

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic6051914B.d

Injection Date: 19-May-2014 12:08:55

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 5

Client ID:

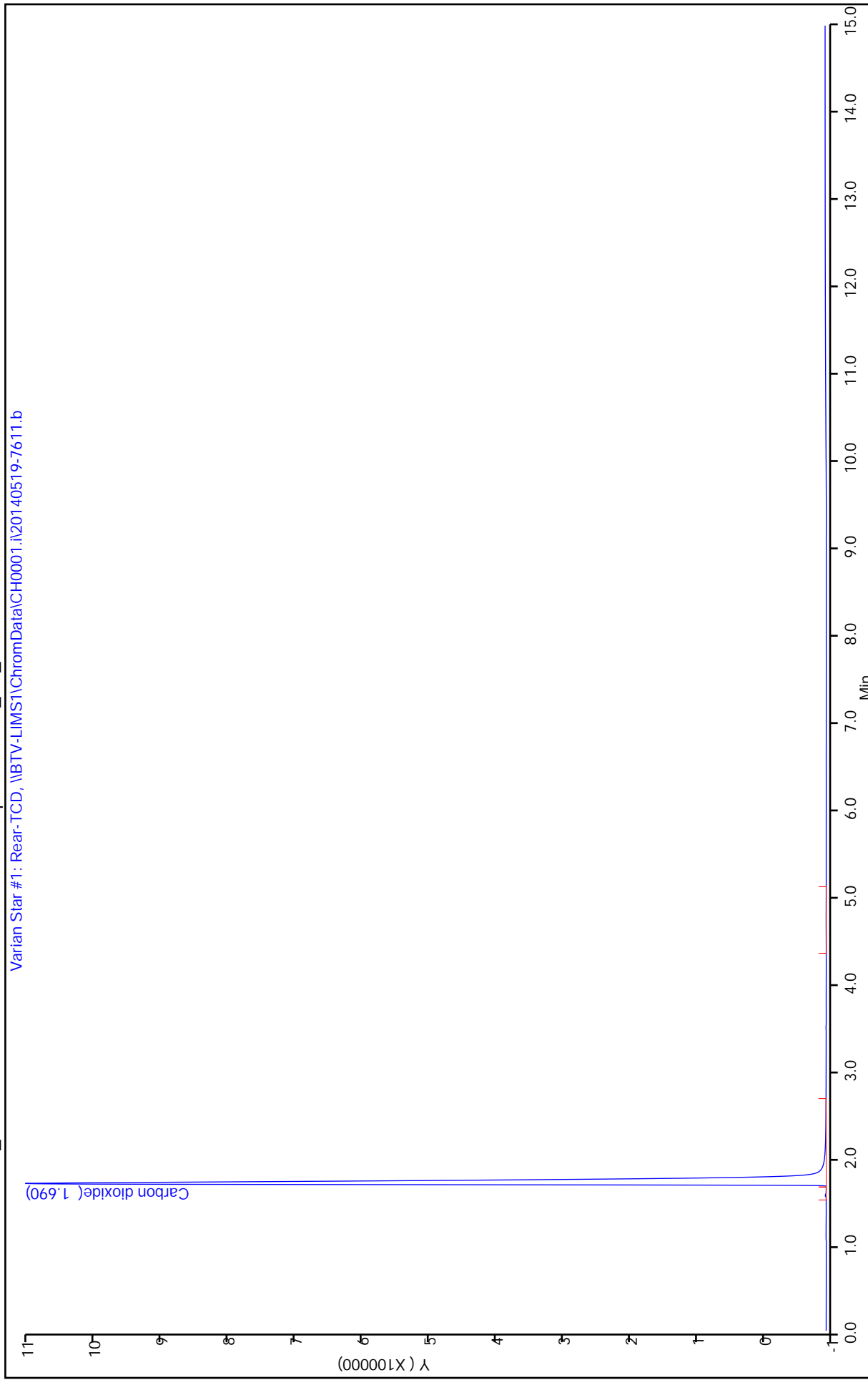
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 20-May-2014 13:27:44

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic6051914C.d

Injection Date: 19-May-2014 12:25:53

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 6

Client ID:

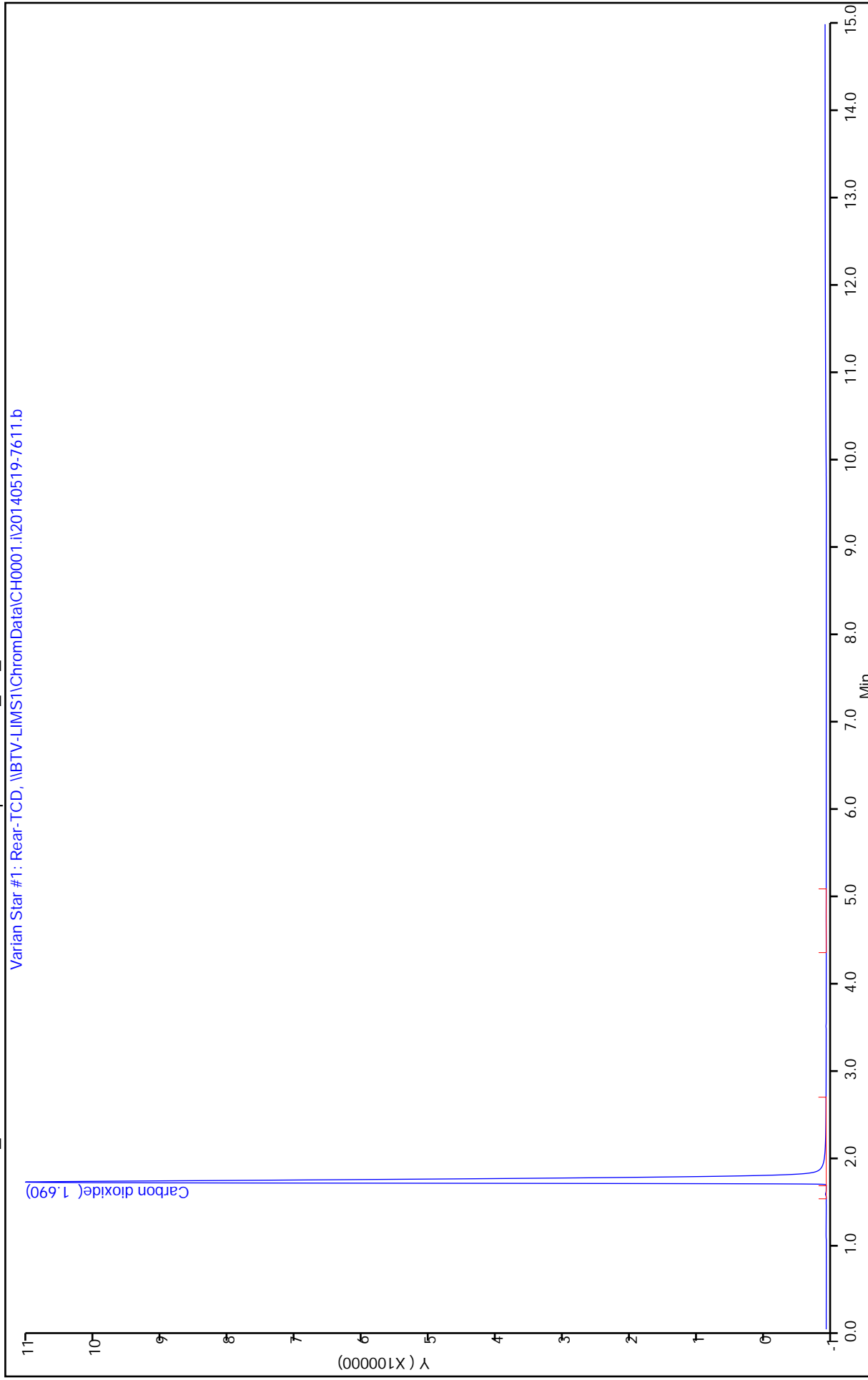
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic8051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 19-May-2014 13:13:14 ALS Bottle#: 0 Worklist Smp#: 8
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC8051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:42 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
4 Methane	6.426	6.532	-0.106	3100680	99.0	102.2	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic8051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 19-May-2014 13:30:56 ALS Bottle#: 0 Worklist Smp#: 9
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC8051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:43 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 14:53:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
4 Methane	6.429	6.532	-0.103	3102072	99.0	102.2	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic8051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic8051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Methane	3100680	3102072	3101376	0.04

Analyte	Conc1	Conc2	Avg Conc	RPD
Methane	102.15	102.2	102.17	0.04

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:43

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic8051914B.d

Injection Date: 19-May-2014 13:13:14

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 8

Client ID:

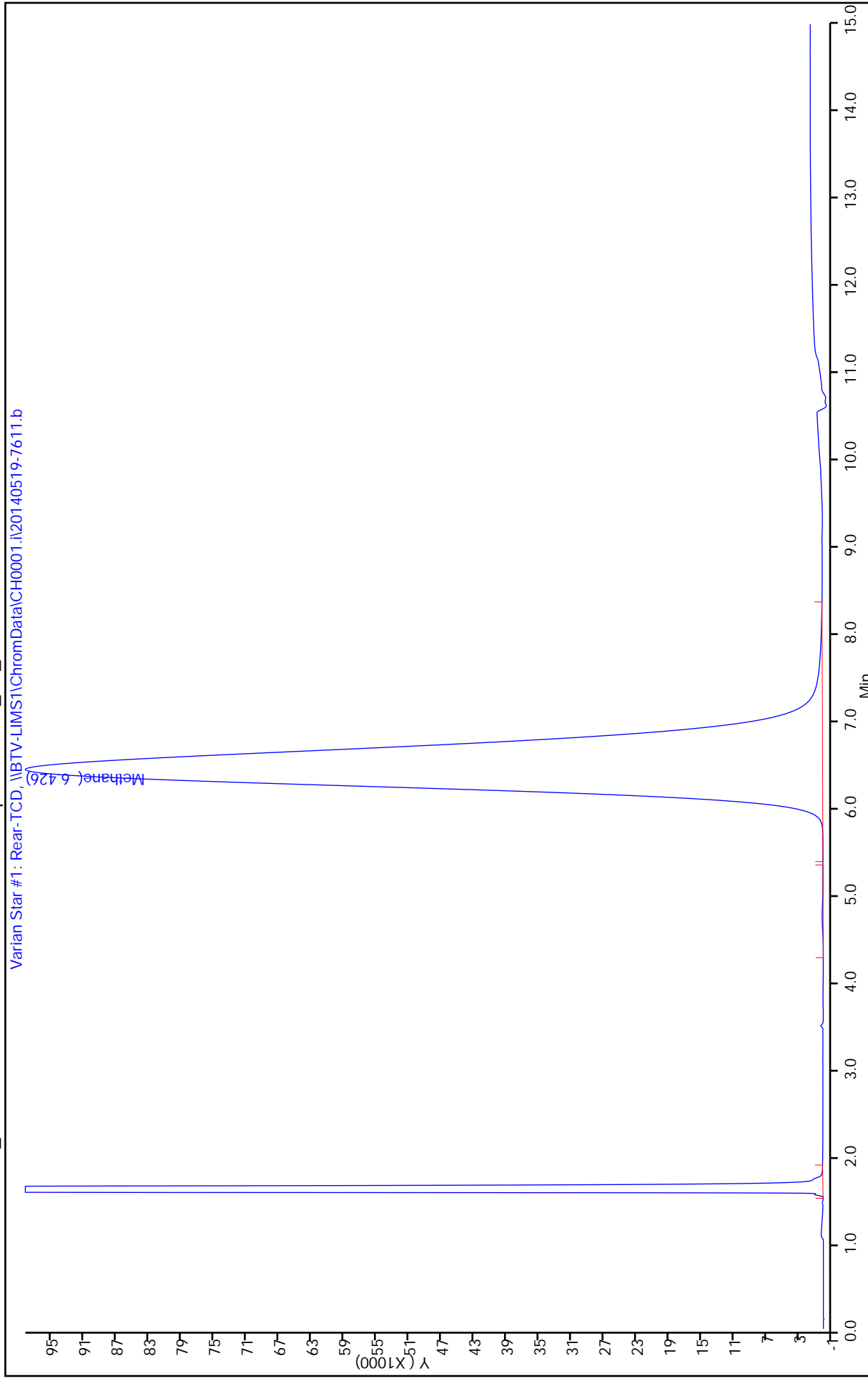
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 20-May-2014 13:27:43

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic8051914C.d

Injection Date: 19-May-2014 13:30:56

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 9

Client ID:

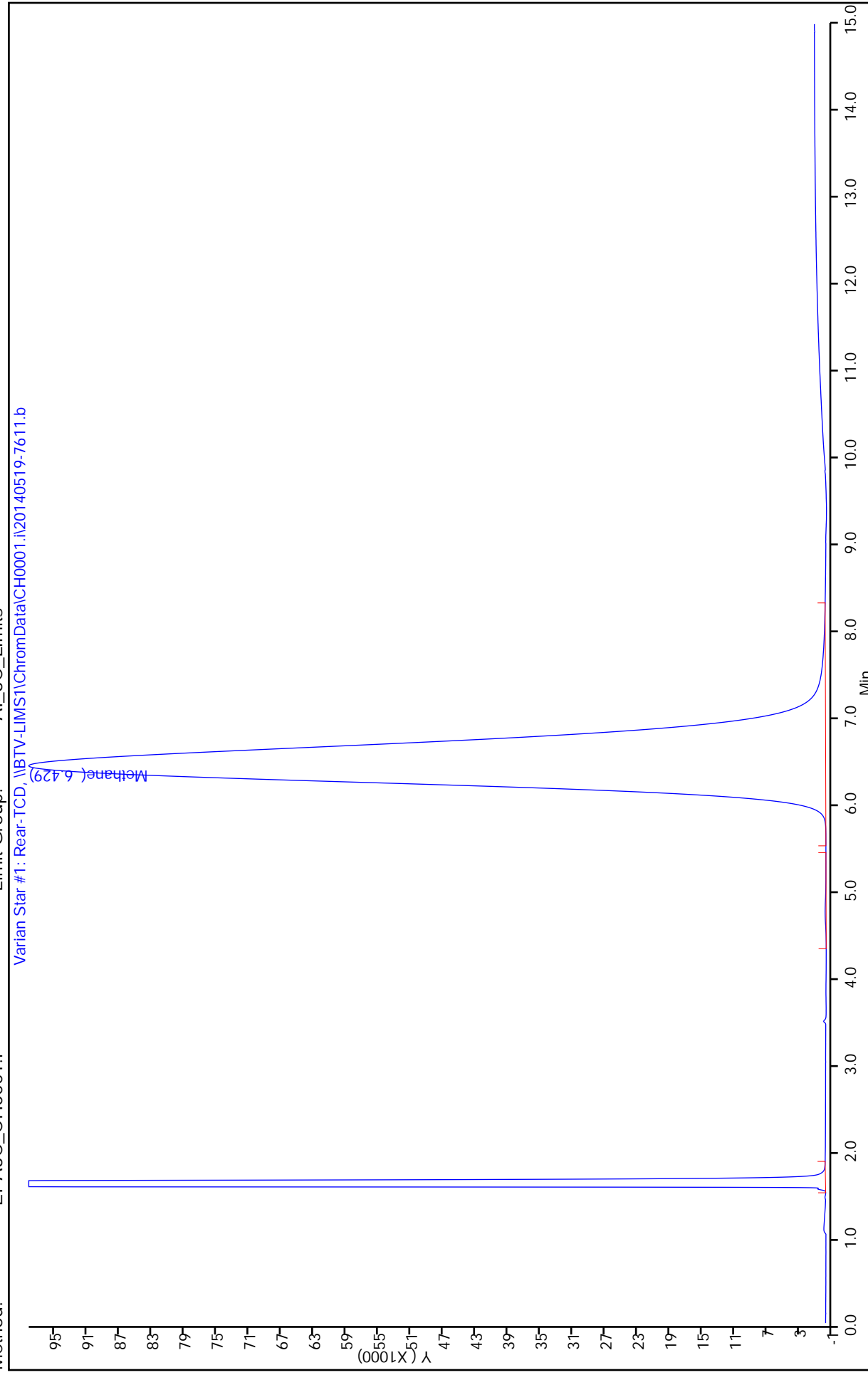
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 11
 Inject. Date: 19-May-2014 14:07:26 ALS Bottle#: 0 Worklist Smp#: 11
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC1051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:40 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d

Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 14:53:59

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.722	1.690	0.032	1668	0.0500	0.0499	
2 Oxygen	3.814	3.825	-0.011	2174	0.0500	0.0626	M
4 Methane	6.579	6.532	0.047	1486	0.0400	0.0490	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 12
 Inject. Date: 19-May-2014 14:23:19 ALS Bottle#: 0 Worklist Smp#: 12
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC1051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:41 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d

Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 14:54:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.725	1.690	0.035	1666	0.0500	0.0499	
2 Oxygen	3.829	3.825	0.004	2210	0.0500	0.0636	M
4 Methane	6.597	6.532	0.065	1525	0.0400	0.0502	M

QC Flag Legend

Review Flags

M - Manually Integrated

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic1051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic1051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	1668	1666	1667	0.12
Oxygen	2174	2210	2192	1.64
Nitrogen	0	0	0	0
Methane	1486	1525	1505.5	2.59
Carbon monoxide	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	0.05	0.05	0.05	0.12
Oxygen	0.06	0.06	0.06	1.64
Nitrogen	0	0	0	0
Methane	0.05	0.05	0.05	2.59
Carbon monoxide	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:40

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914B.d

Injection Date: 19-May-2014 14:07:26

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 11

Client ID:

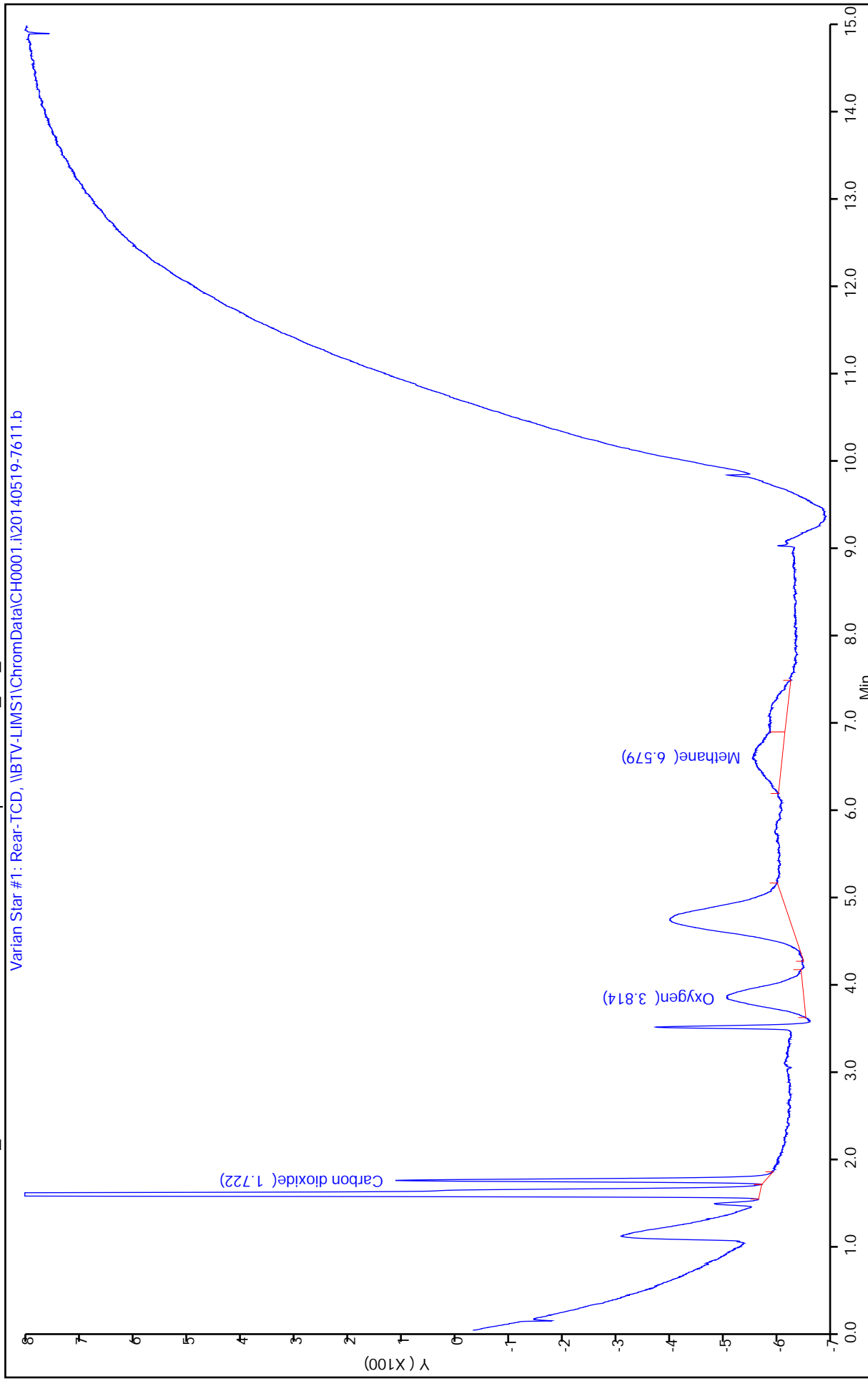
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 20-May-2014 13:27:41

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914C.d

Injection Date: 19-May-2014 14:23:19

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 12

Client ID:

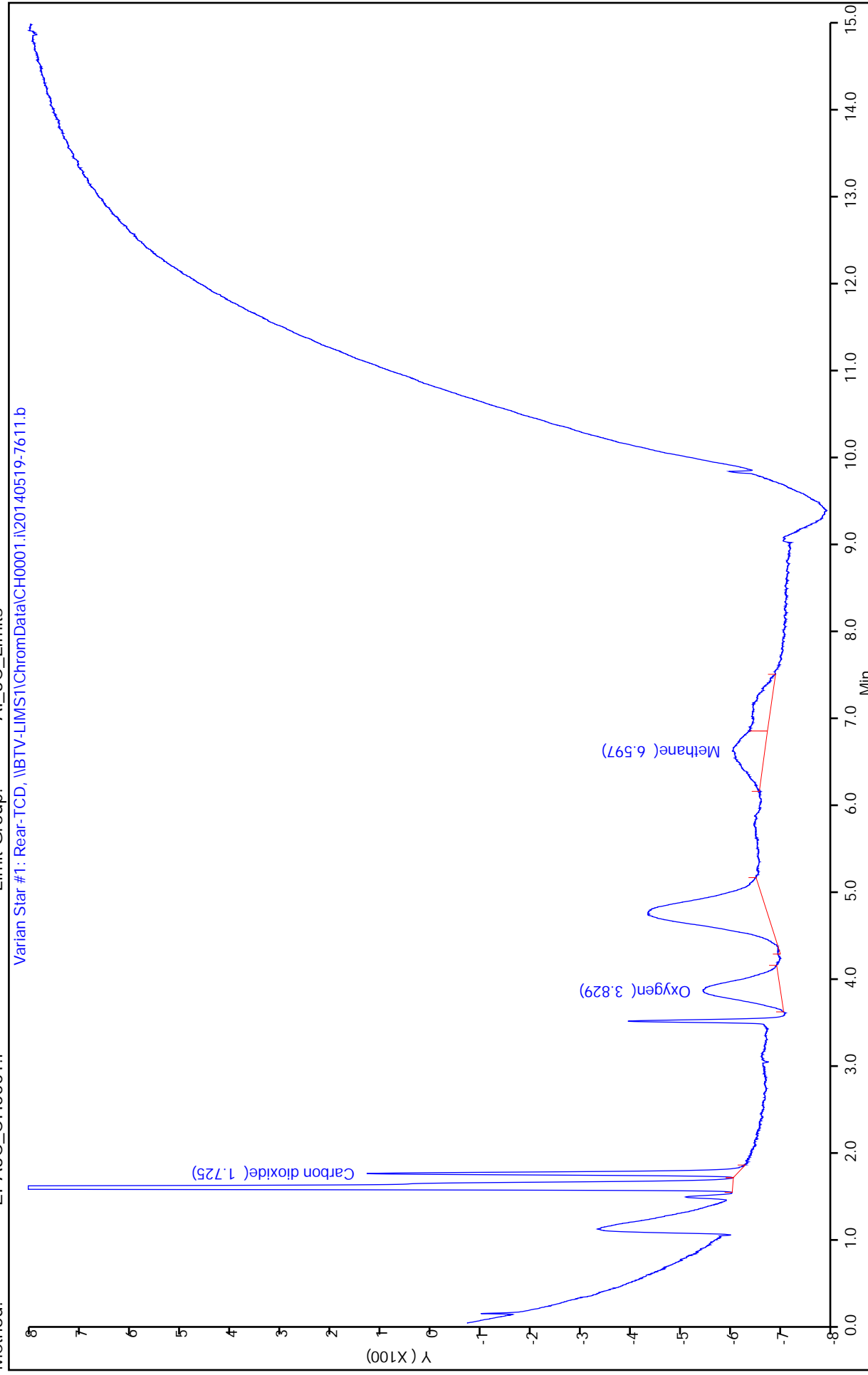
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



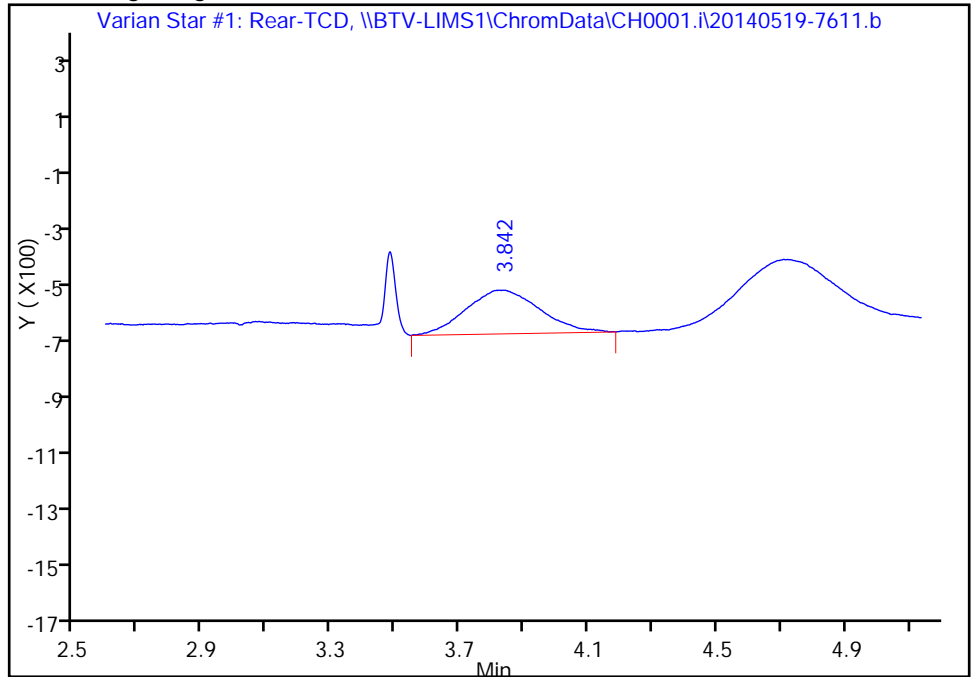
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914B.d
Injection Date: 19-May-2014 14:07:26 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 11
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

2 Oxygen, CAS: 7782-44-7

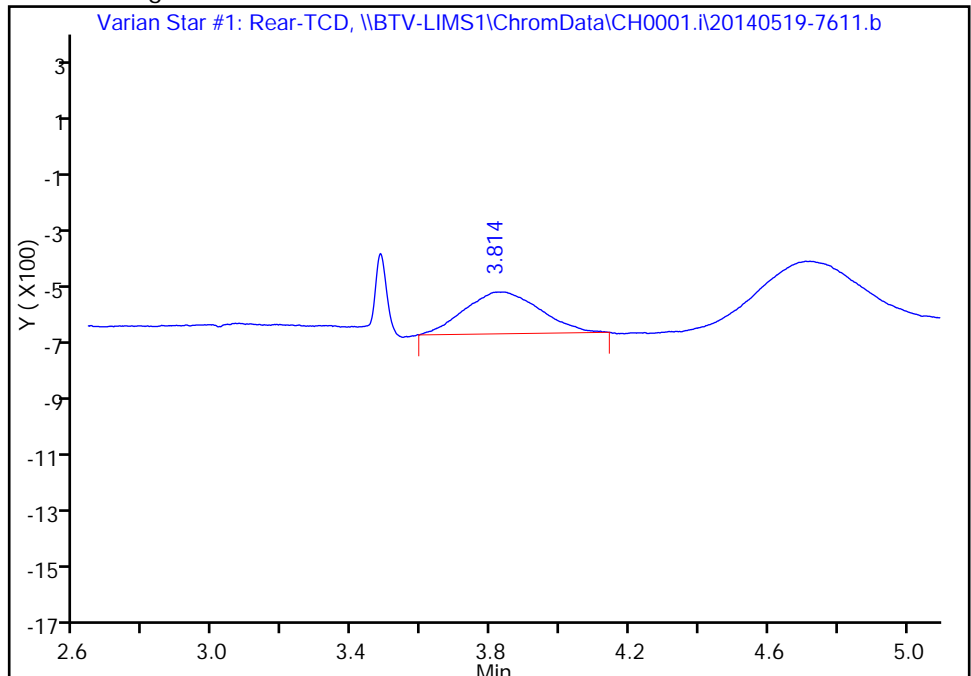
RT: 3.84
Response: 2403
Amount: 0.059909

Processing Integration Results



RT: 3.81
Response: 2174
Amount: 0.062603

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 10:49:14
Audit Action: Manually Integrated
Audit Reason: Baseline Event

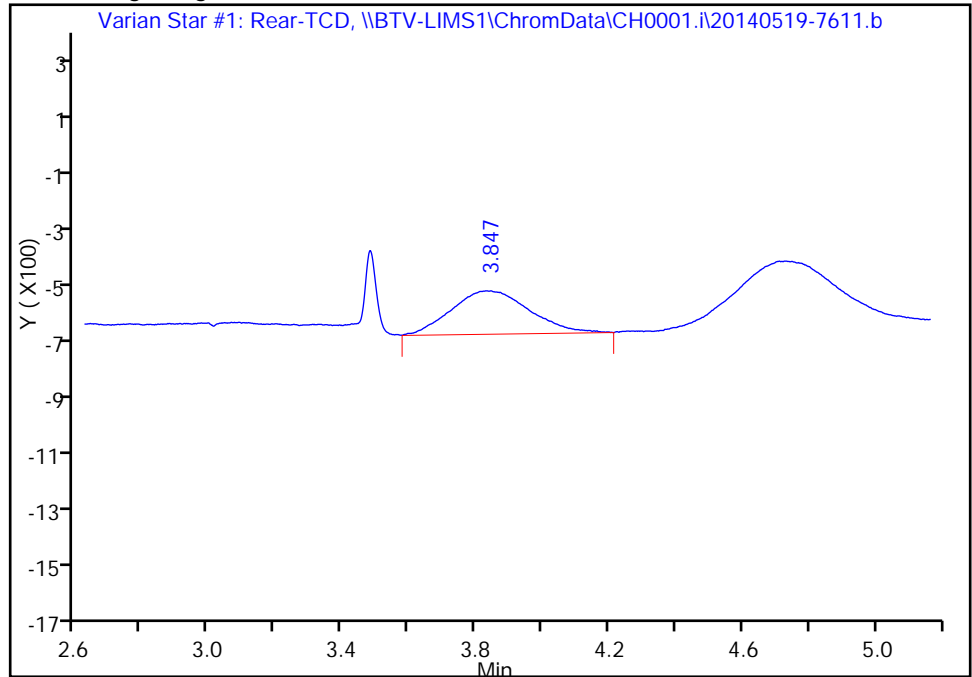
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914C.d
Injection Date: 19-May-2014 14:23:19 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 12
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

2 Oxygen, CAS: 7782-44-7

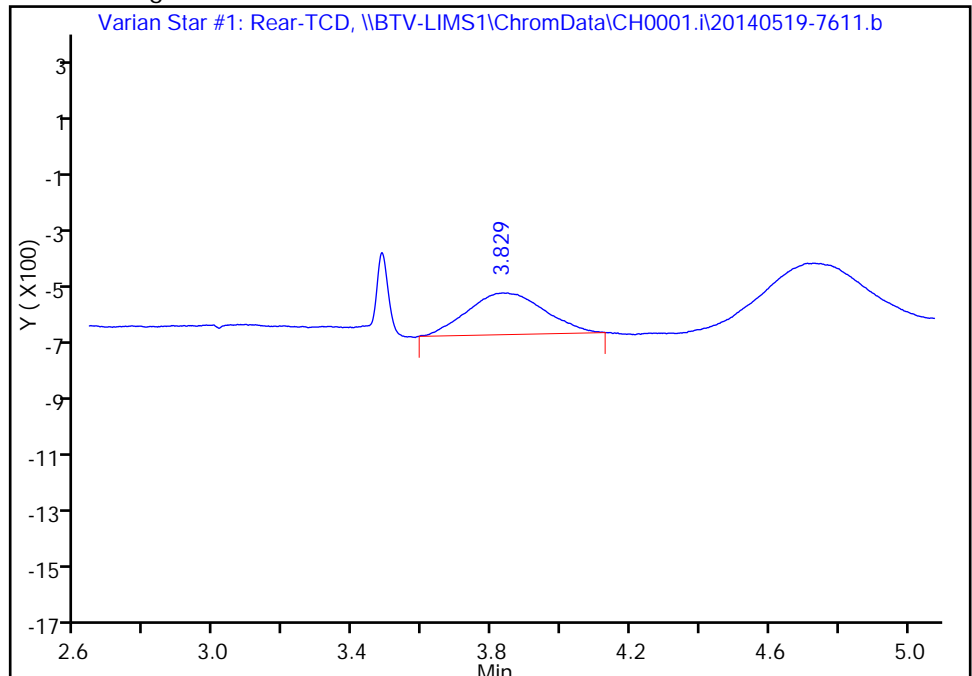
RT: 3.85
Response: 2430
Amount: 0.061238

Processing Integration Results



RT: 3.83
Response: 2210
Amount: 0.063640

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 10:50:07
Audit Action: Manually Integrated
Audit Reason: Baseline Event

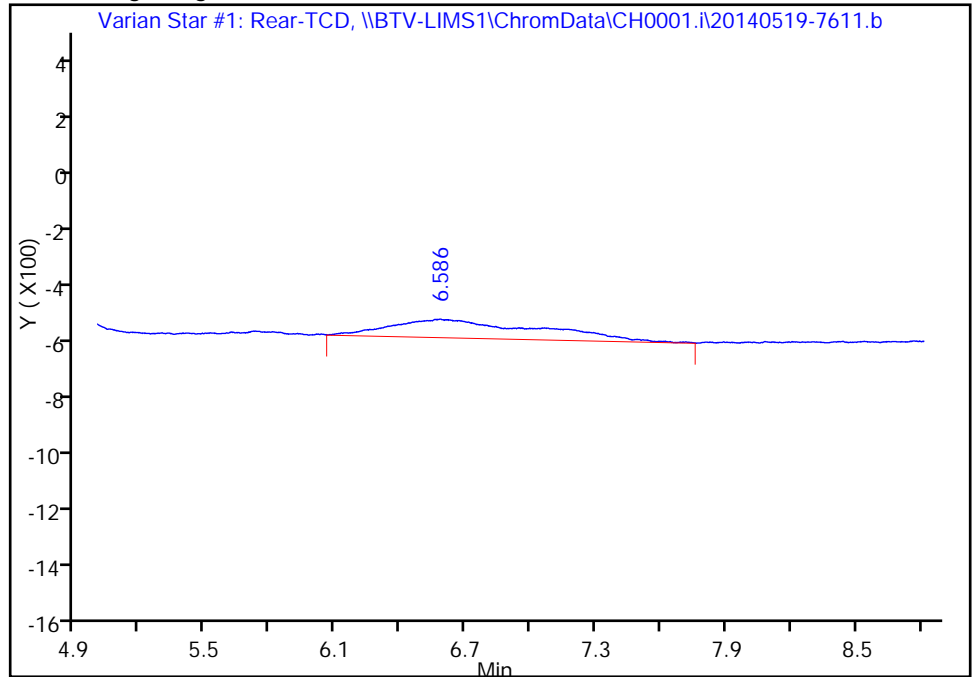
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914B.d
Injection Date: 19-May-2014 14:07:26 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 11
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

4 Methane, CAS: 74-82-8

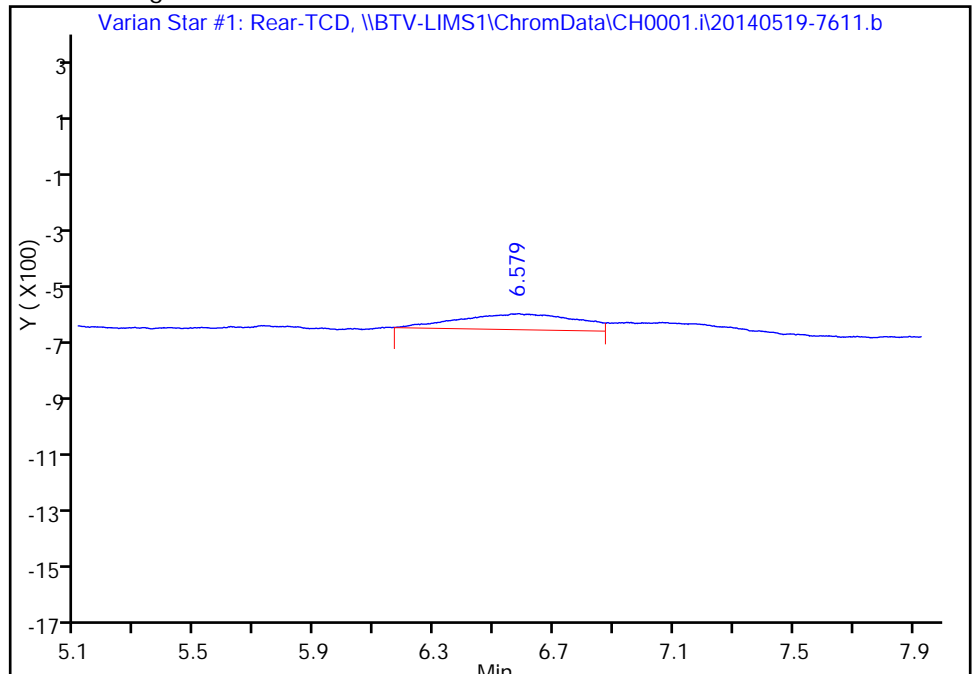
RT: 6.59
Response: 3073
Amount: 0.075749

Processing Integration Results



RT: 6.58
Response: 1486
Amount: 0.048956

Manual Integration Results



Reviewer: lyonsb, 19-May-2014 15:04:00
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

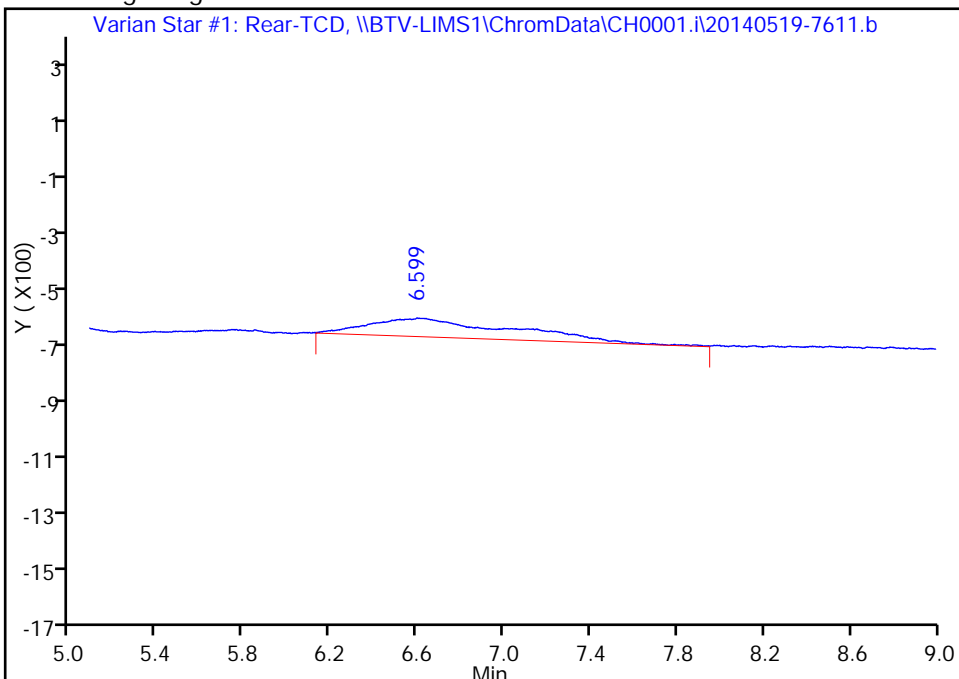
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic1051914C.d
Injection Date: 19-May-2014 14:23:19 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 12
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

4 Methane, CAS: 74-82-8

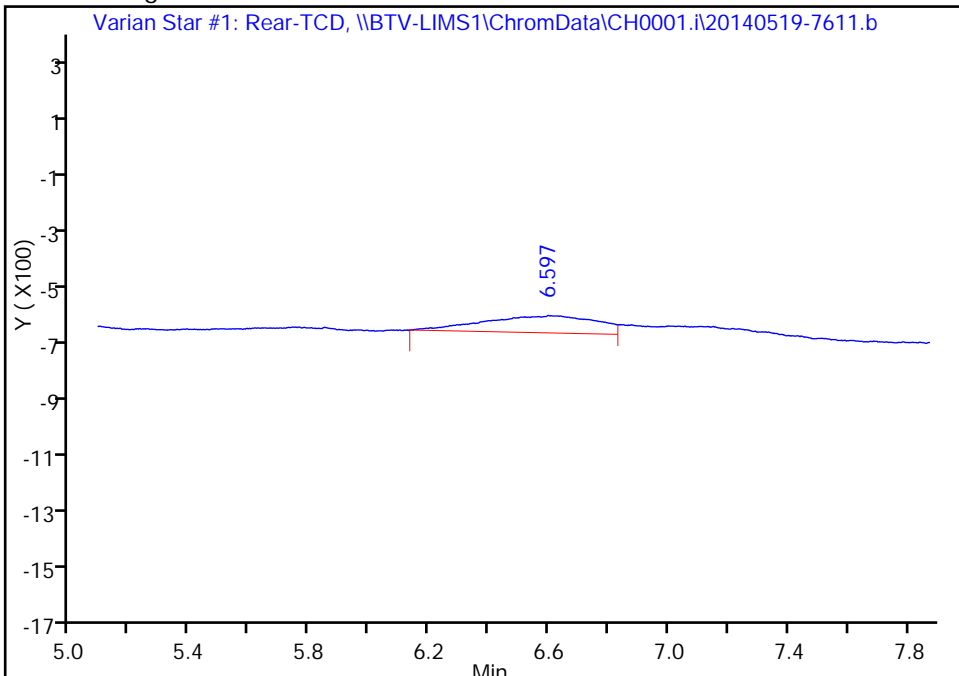
RT: 6.60
Response: 2972
Amount: 0.079735

Processing Integration Results



RT: 6.60
Response: 1525
Amount: 0.050241

Manual Integration Results



Reviewer: lyonsb, 19-May-2014 15:05:00
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914A.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 13
 Inject. Date: 19-May-2014 14:39:30 ALS Bottle#: 0 Worklist Smp#: 13
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC1051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:42 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 11:12:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.722	1.690	0.032	17612	0.5000	0.5271	
2 Oxygen	3.829	3.825	0.004	17324	0.5000	0.4989	
3 Nitrogen	4.717	4.721	-0.004	21447	0.5000	0.5713	
4 Methane	6.524	6.532	-0.008	11896	0.4000	0.3919	M
5 Carbon monoxide	7.036	7.064	-0.028	18875	0.5000	0.5381	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 14
 Inject. Date: 19-May-2014 14:55:22 ALS Bottle#: 0 Worklist Smp#: 14
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC2051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:42 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 15:18:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.720	1.690	0.030	17549	0.5000	0.5252	
2 Oxygen	3.822	3.825	-0.003	17291	0.5000	0.4979	
3 Nitrogen	4.704	4.721	-0.017	21476	0.5000	0.5721	
4 Methane	6.517	6.532	-0.015	12299	0.4000	0.4052	
5 Carbon monoxide	7.037	7.064	-0.027	18355	0.5000	0.5233	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic2051914a-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic2051914b-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	17612	17549	17580.5	0.36
Oxygen	17324	17291	17307.5	0.19
Nitrogen	21447	21476	21461.5	0.14
Methane	11896	12299	12097.5	3.33
Carbon monoxide	18875	18355	18615	2.79

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	0.53	0.53	0.53	0.36
Oxygen	0.5	0.5	0.5	0.19
Nitrogen	0.57	0.57	0.57	0.14
Methane	0.39	0.41	0.4	3.33
Carbon monoxide	0.54	0.52	0.53	2.79

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914A.d

Injection Date: 19-May-2014 14:39:30

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 13

Client ID:

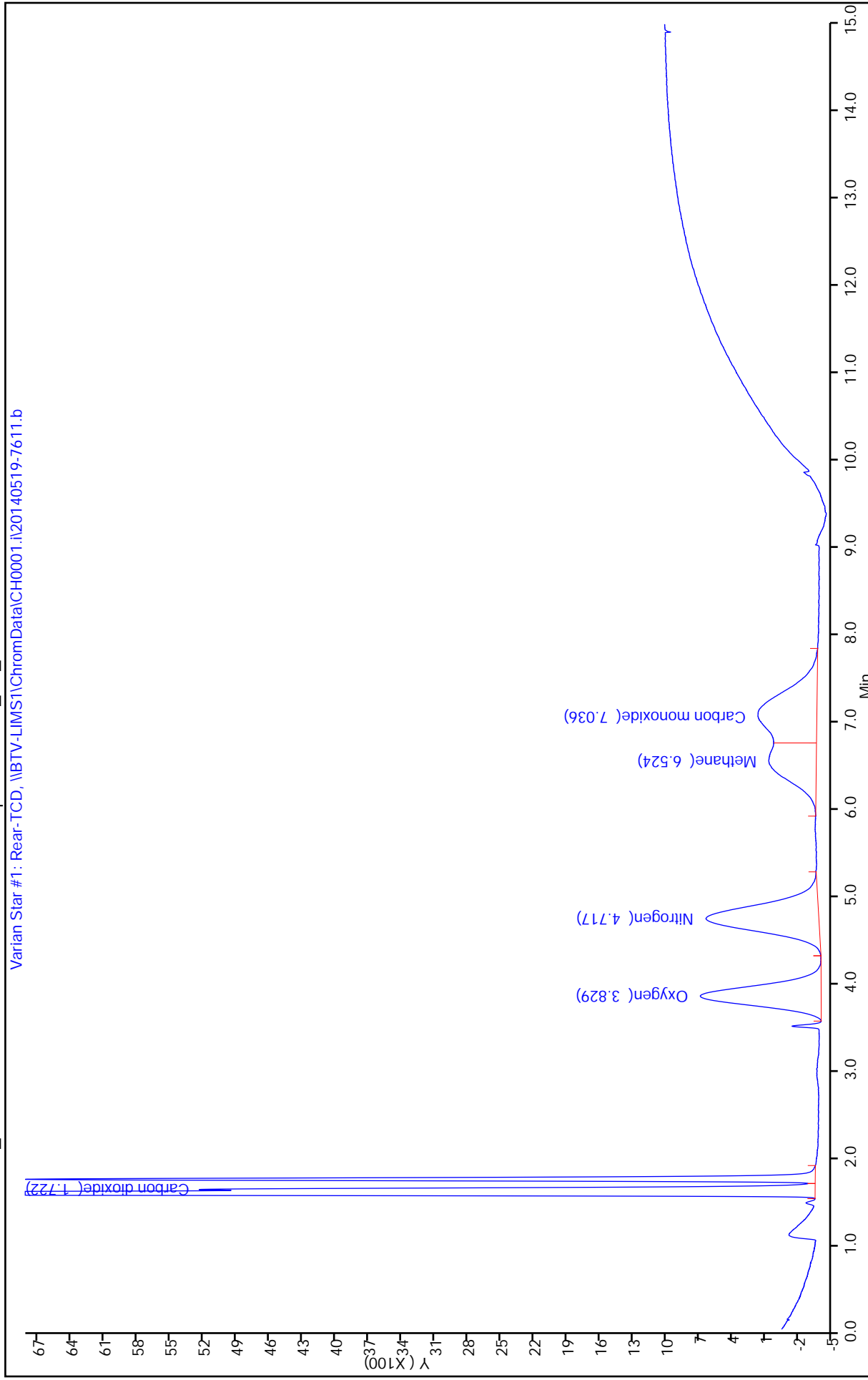
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914B.d

Injection Date: 19-May-2014 14:55:22

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 14

Client ID:

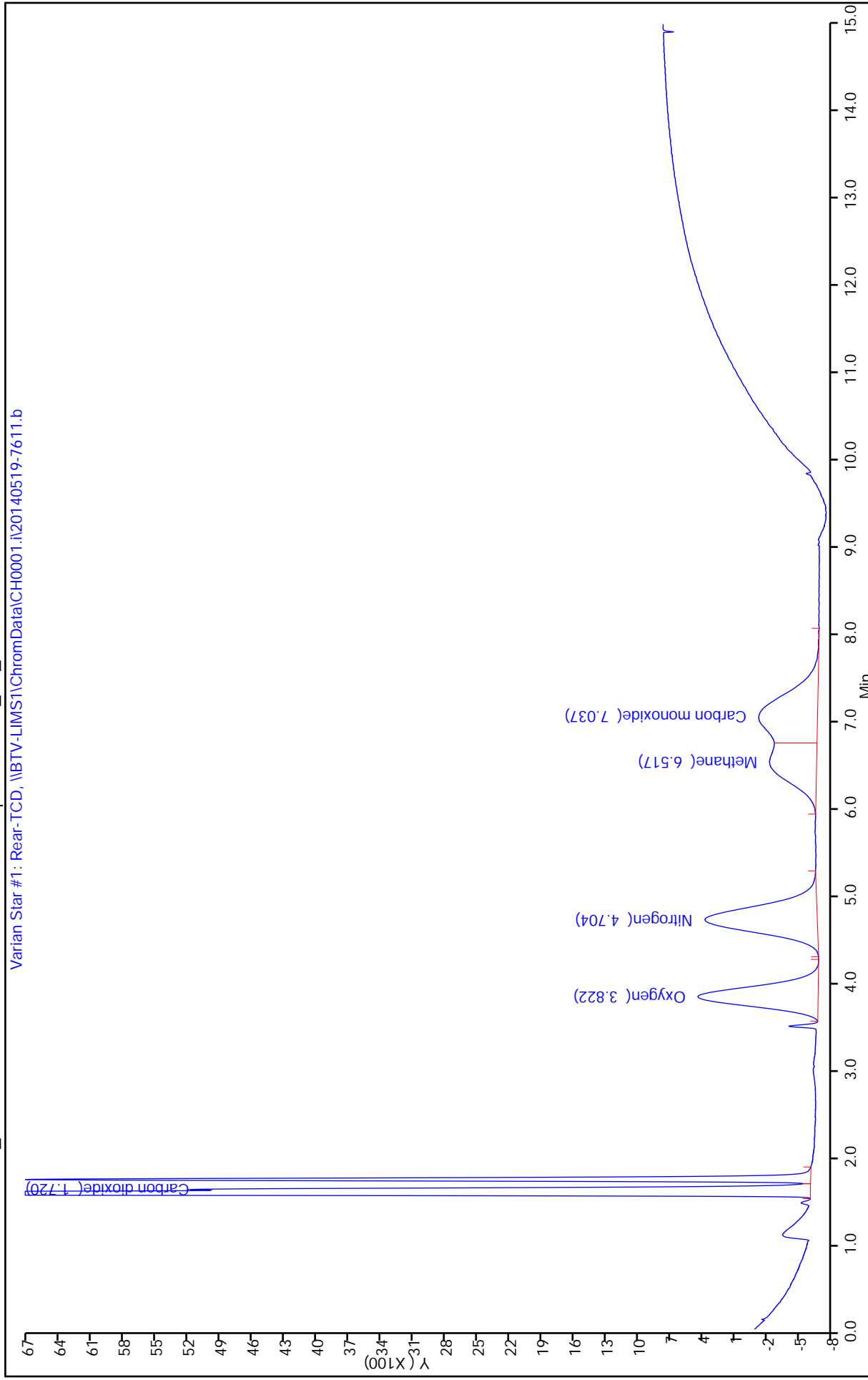
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



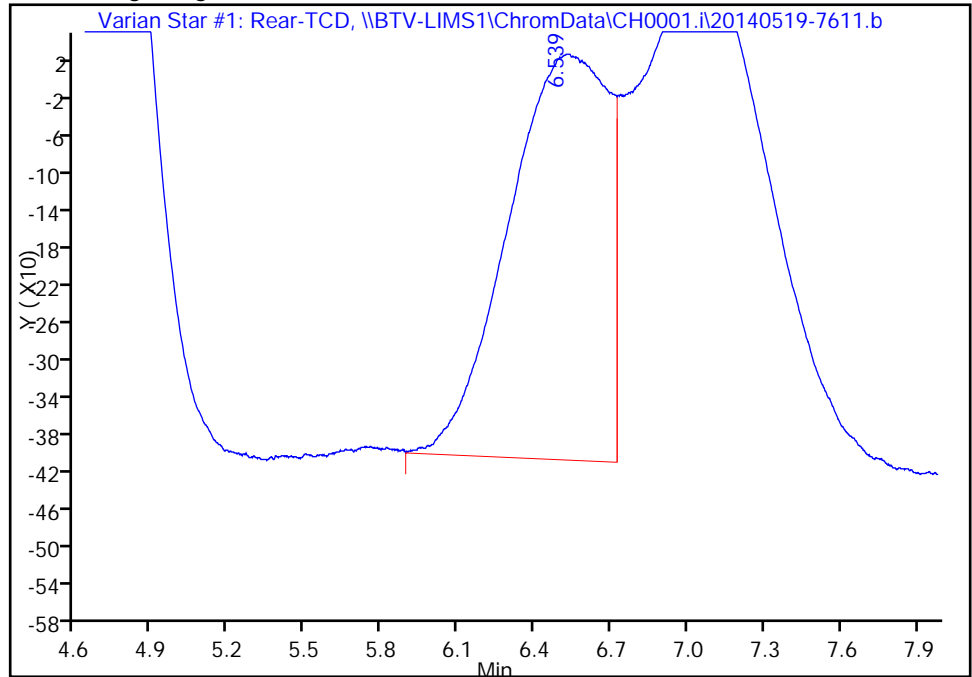
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914A.d
Injection Date: 19-May-2014 14:39:30 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 13
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

4 Methane, CAS: 74-82-8

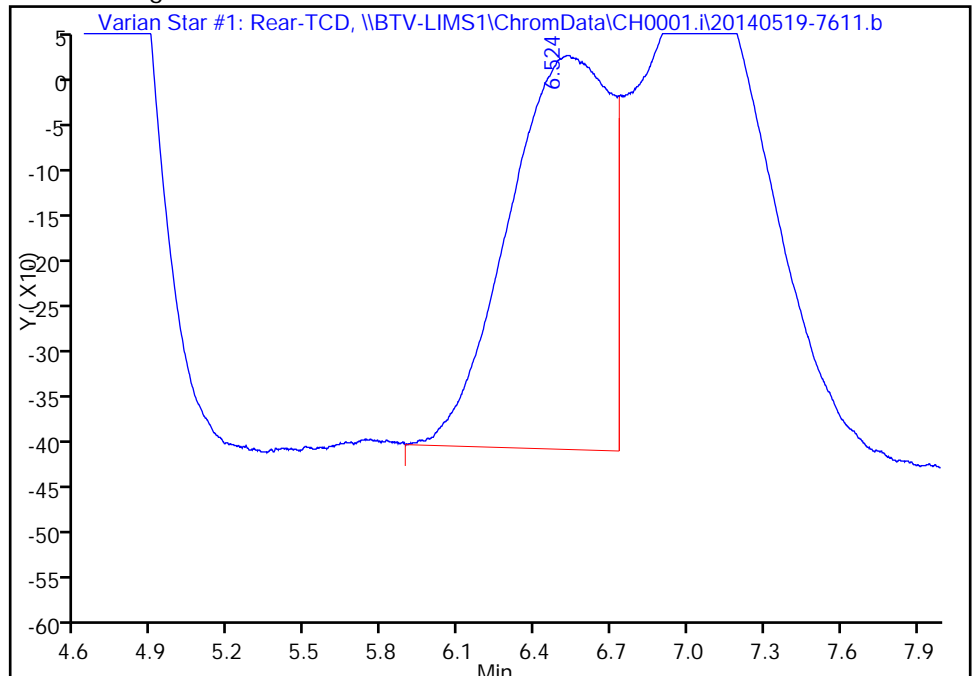
RT: 6.54
Response: 11827
Amount: 0.390947

Processing Integration Results



RT: 6.52
Response: 11896
Amount: 0.391914

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 11:19:29
Audit Action: Manually Integrated/Assigned Compound ID
Audit Reason: Baseline Event

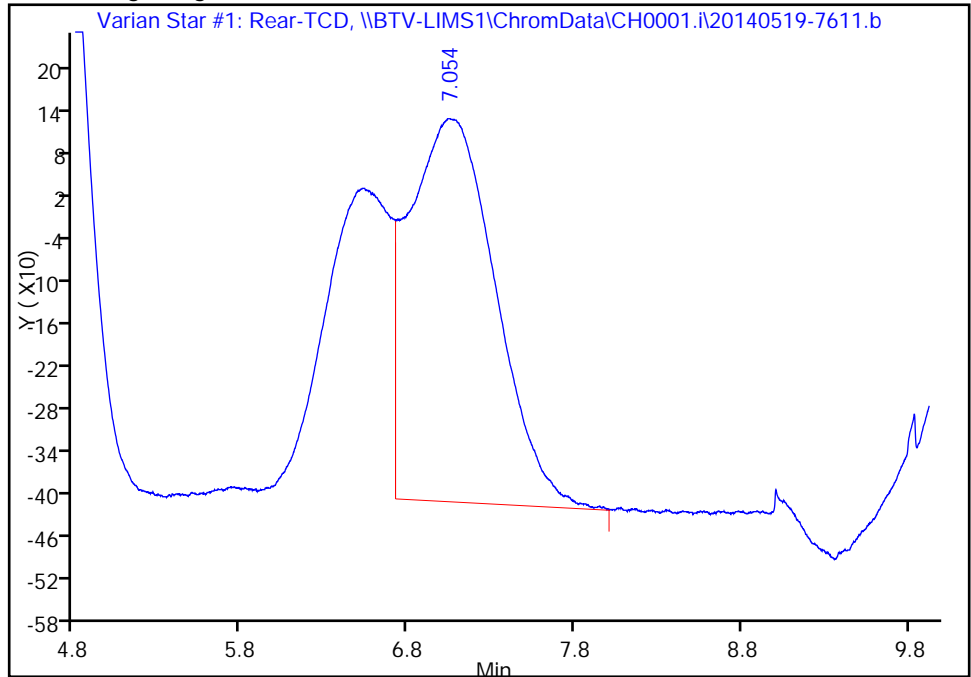
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic2051914A.d
Injection Date: 19-May-2014 14:39:30 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 13
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

5 Carbon monoxide, CAS: 630-08-0

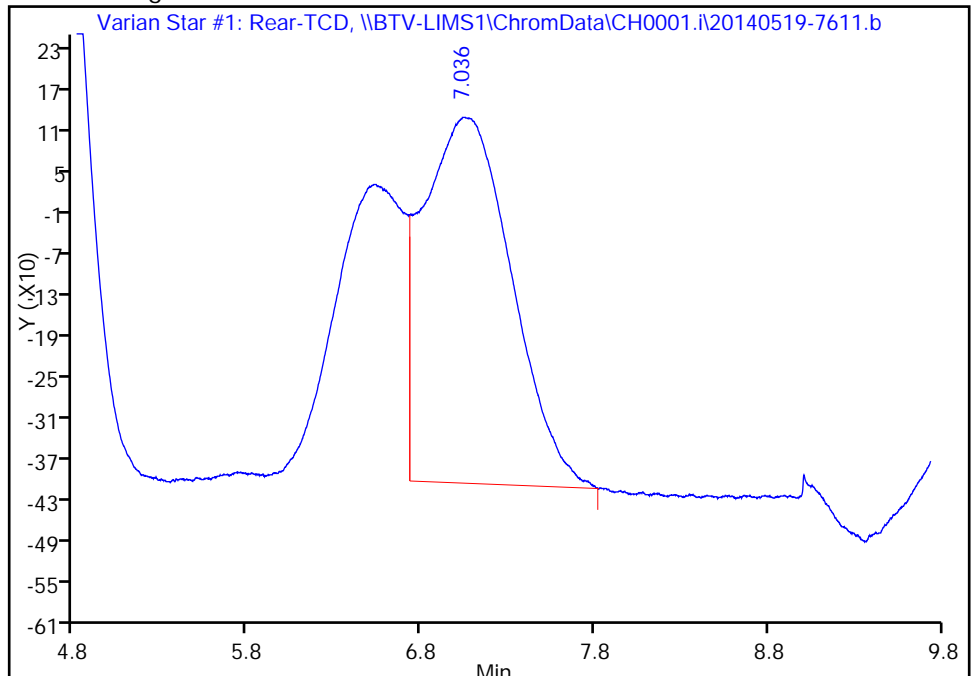
RT: 7.05
Response: 19471
Amount: 0.556802

Processing Integration Results



RT: 7.04
Response: 18875
Amount: 0.538115

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 11:19:29
Audit Action: Split an Integrated Peak
Audit Reason: Baseline Event

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic3051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 17
 Inject. Date: 19-May-2014 15:42:57 ALS Bottle#: 0 Worklist Smp#: 17
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC3051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:40 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb

Date: 19-May-2014 16:32:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.718	1.690	0.028	80678	2.50	2.41	
2 Oxygen	3.815	3.825	-0.010	80220	2.50	2.31	
3 Nitrogen	4.698	4.721	-0.023	92615	2.50	2.47	
4 Methane	6.503	6.532	-0.029	50875	2.00	1.68	
5 Carbon monoxide	7.020	7.064	-0.044	91976	2.50	2.62	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic3051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 18
 Inject. Date: 19-May-2014 15:58:49 ALS Bottle#: 0 Worklist Smp#: 18
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC3051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:40 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 19-May-2014 16:36:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.720	1.690	0.030	80878	2.50	2.42	
2 Oxygen	3.820	3.825	-0.005	80508	2.50	2.32	
3 Nitrogen	4.705	4.721	-0.016	92955	2.50	2.48	
4 Methane	6.517	6.532	-0.015	51924	2.00	1.71	
5 Carbon monoxide	7.028	7.064	-0.036	91799	2.50	2.62	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic3051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic3051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	80678	80878	80778	0.25
Oxygen	80220	80508	80364	0.36
Nitrogen	92615	92955	92785	0.37
Methane	50875	51924	51399.5	2.04
Carbon monoxide	91976	91799	91887.5	0.19

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	2.41	2.42	2.42	0.25
Oxygen	2.31	2.32	2.31	0.36
Nitrogen	2.47	2.48	2.47	0.37
Methane	1.68	1.71	1.69	2.04
Carbon monoxide	2.62	2.62	2.62	0.19

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:40

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic3051914B.d

Injection Date: 19-May-2014 15:42:57

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 17

Client ID:

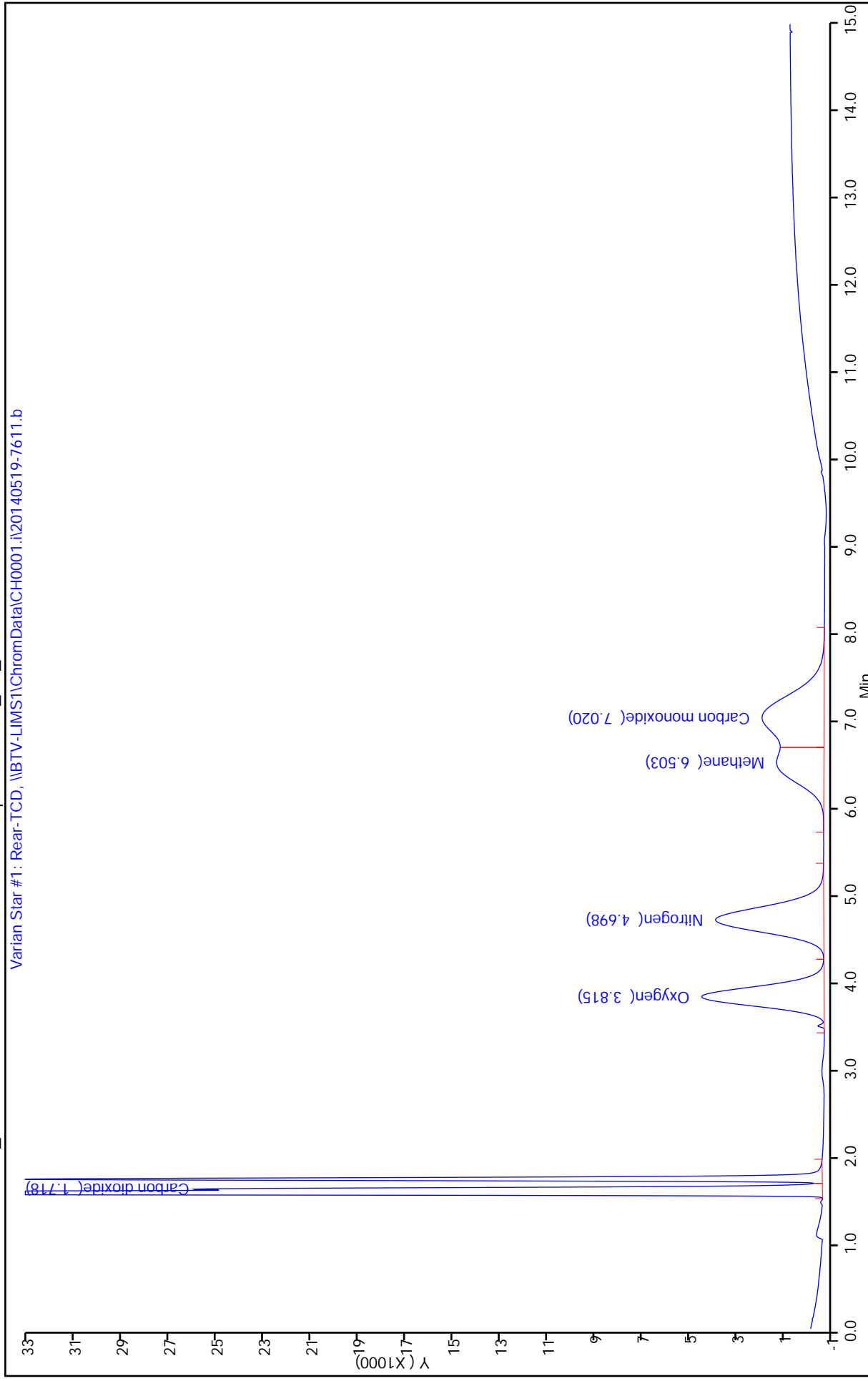
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic3051914C.d

Injection Date: 19-May-2014 15:58:49

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 18

Client ID:

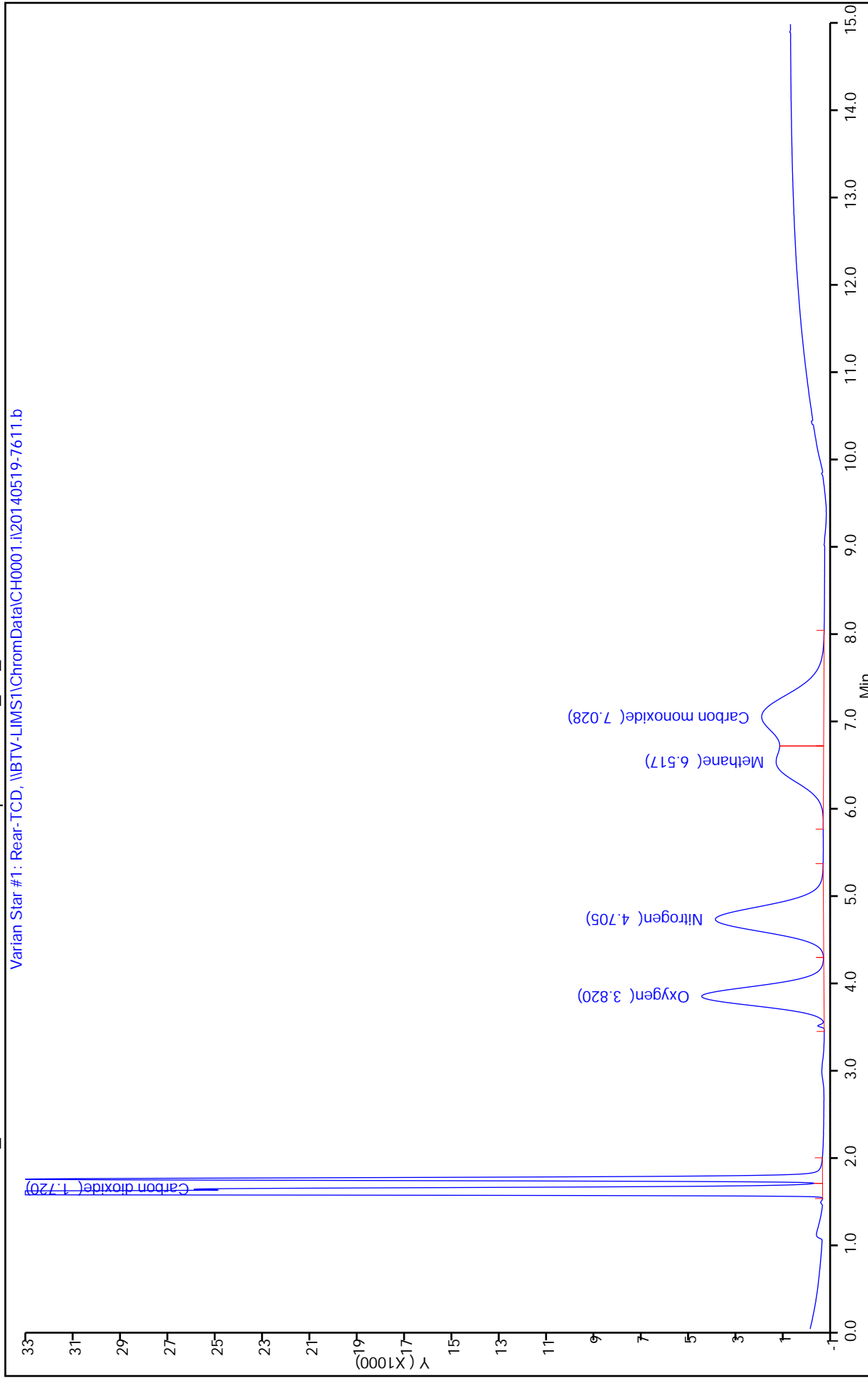
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic5051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 20
 Inject. Date: 19-May-2014 16:30:31 ALS Bottle#: 0 Worklist Smp#: 20
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC5051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:38 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
2 Oxygen	3.800	3.825	-0.025	687490	22.0	19.8	
3 Nitrogen	4.647	4.721	-0.074	2845671	78.0	75.8	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic5051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 21
 Inject. Date: 19-May-2014 16:46:24 ALS Bottle#: 0 Worklist Smp#: 21
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC5051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:39 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
2 Oxygen	3.798	3.825	-0.027	689877	22.0	19.9	
3 Nitrogen	4.643	4.721	-0.078	2857487	78.0	76.1	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic5051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic5051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Oxygen	687490	689877	688683.5	0.35
Nitrogen	2845671	2857487	2851579	0.41

Analyte	Conc1	Conc2	Avg Conc	RPD
Oxygen	19.8	19.87	19.83	0.35
Nitrogen	75.8	76.12	75.96	0.41

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic5051914B.d

Injection Date: 19-May-2014 16:30:31

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 20

Client ID:

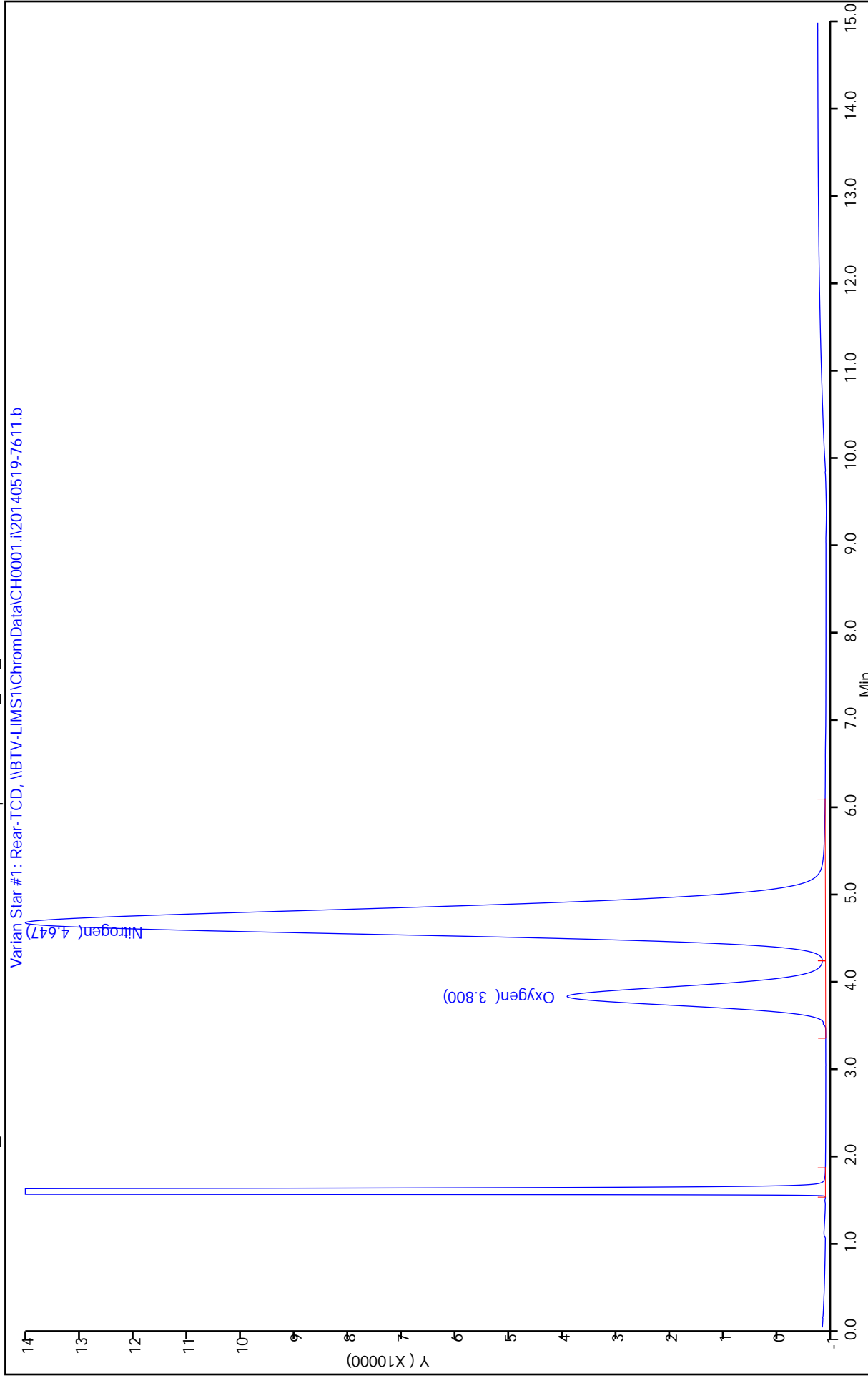
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 20-May-2014 13:27:39

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic5051914C.d

Injection Date: 19-May-2014 16:46:24

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 21

Client ID:

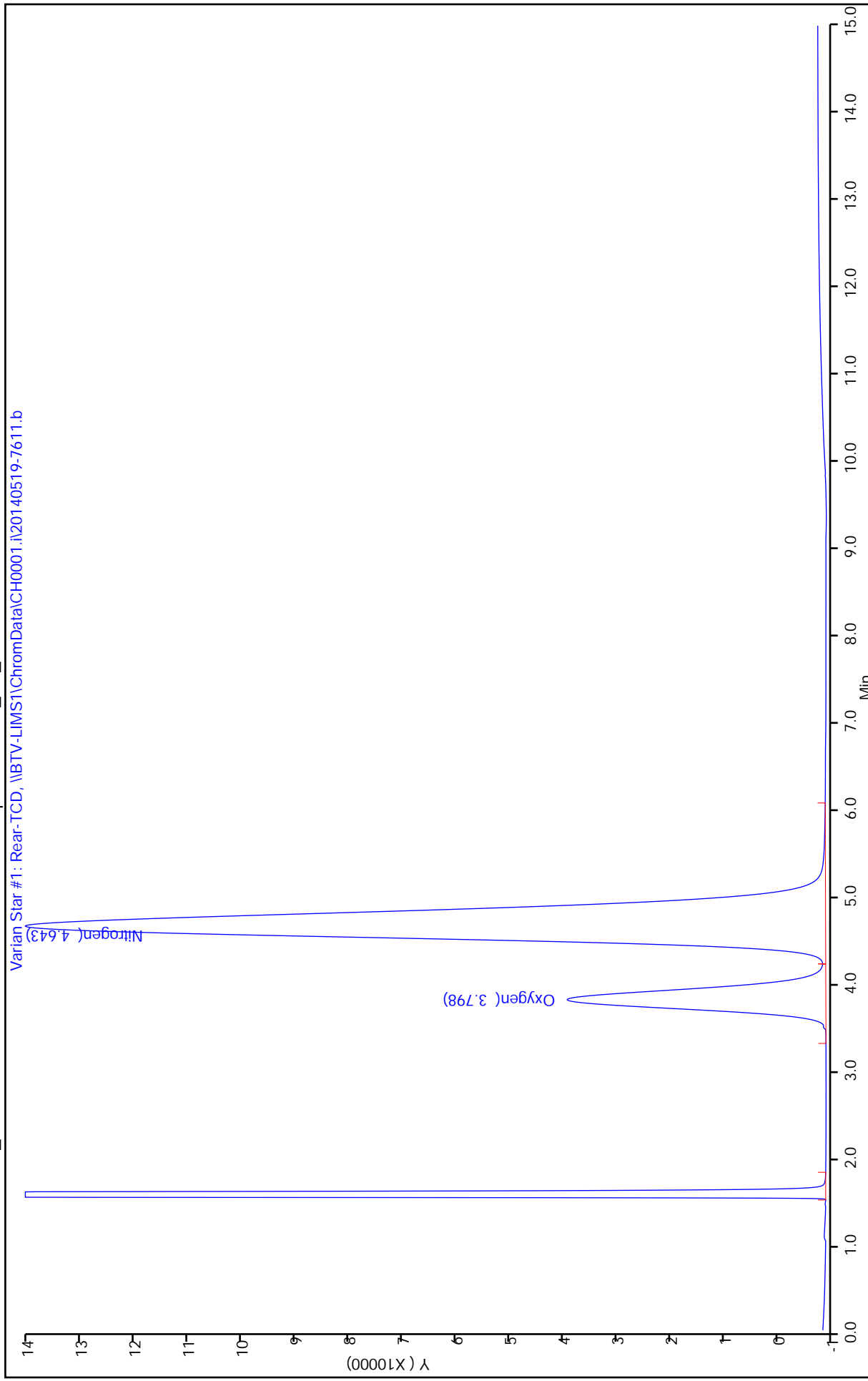
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic7051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 23
 Inject. Date: 19-May-2014 17:18:07 ALS Bottle#: 0 Worklist Smp#: 23
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC7051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:38 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.630	4.721	-0.091	3581392	100.0	95.4	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic7051914C.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 24
 Inject. Date: 19-May-2014 17:33:58 ALS Bottle#: 0 Worklist Smp#: 24
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC7051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:38 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 10:16:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.625	4.721	-0.096	3585163	100.0	95.5	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic7051914b-72292-ai_3c_1

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic7051914c-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Nitrogen	3581392	3585163	3583277.5	0.11

Analyte	Conc1	Conc2	Avg Conc	RPD
Nitrogen	95.4	95.5	95.45	0.11

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic7051914B.d

Injection Date: 19-May-2014 17:18:07

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 23

Client ID:

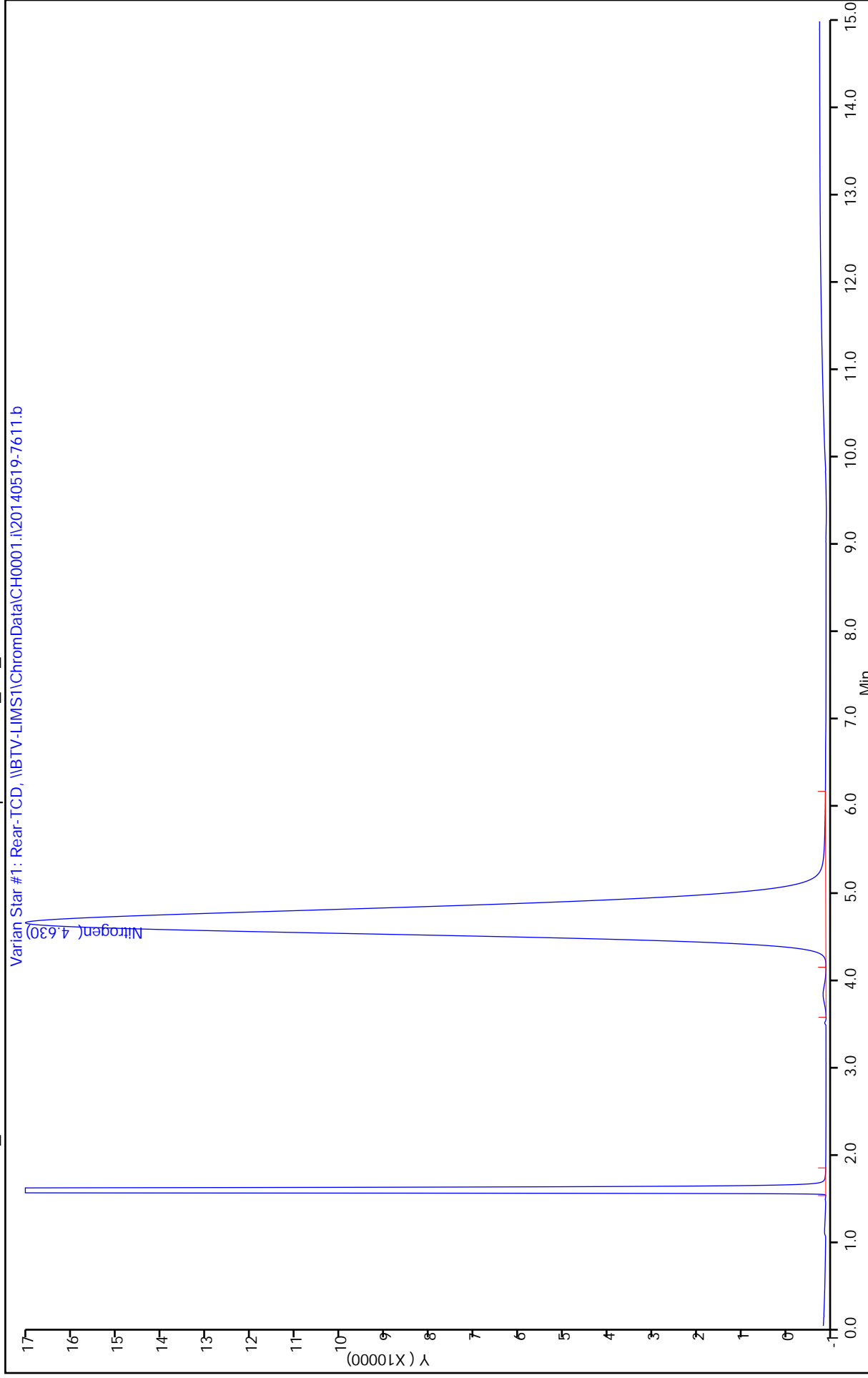
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic7051914C.d

Injection Date: 19-May-2014 17:33:58

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 24

Client ID:

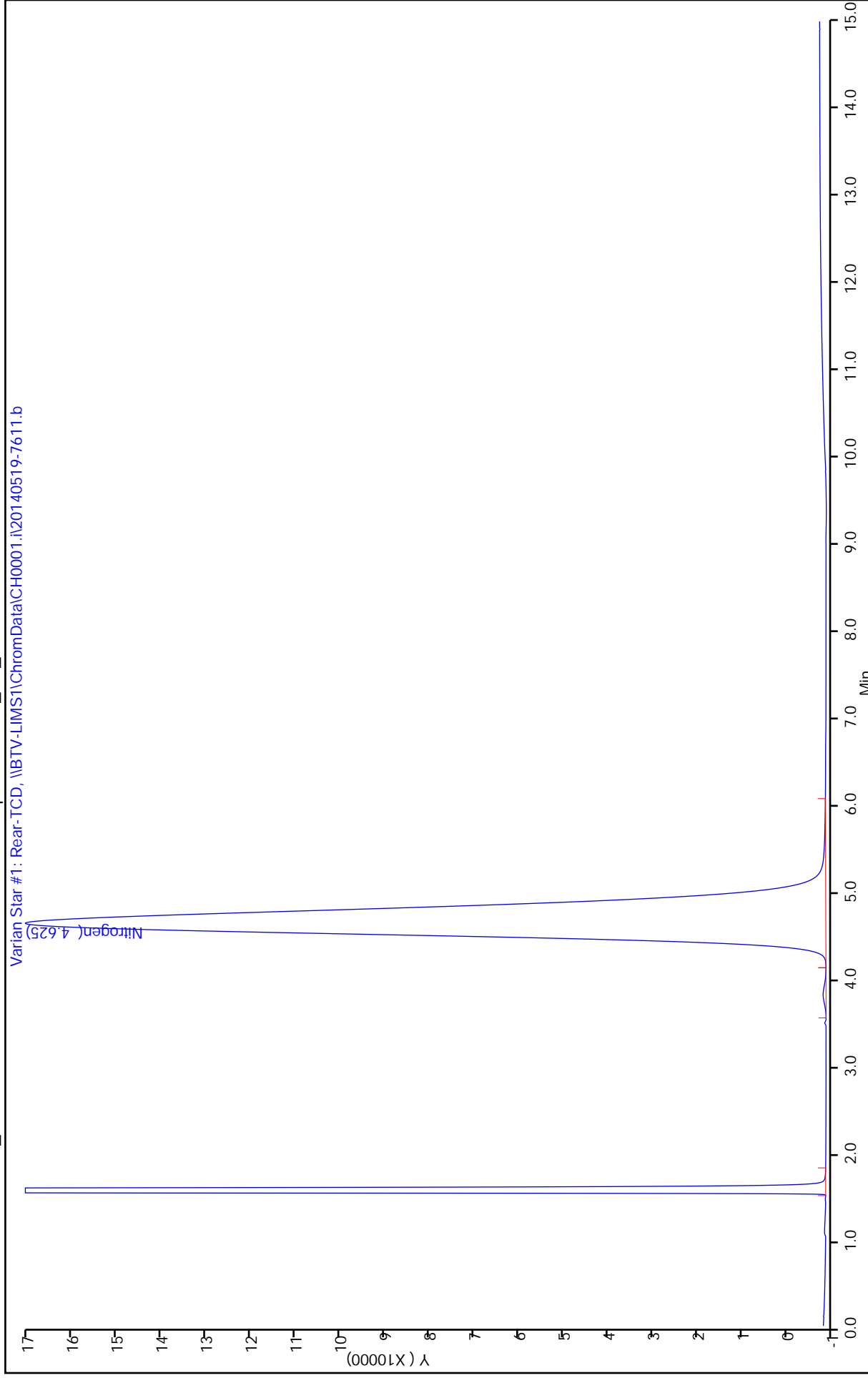
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914A.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 28
 Inject. Date: 19-May-2014 18:37:26 ALS Bottle#: 0 Worklist Smp#: 80
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC10051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:36 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 10:19:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
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5 Carbon monoxide	7.024	7.064	-0.040	2798	0.1000	0.0798	M
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QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 29
 Inject. Date: 19-May-2014 18:53:18 ALS Bottle#: 0 Worklist Smp#: 81
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC10051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:37 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 10:19:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
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5 Carbon monoxide	7.037	7.064	-0.027	2903	0.1000	0.0828	M
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QC Flag Legend

Review Flags

M - Manually Integrated

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic10051914a-72292-ai_3c_

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic10051914b-72292-ai_3c_

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon monoxide	2798	2903	2850.5	3.68

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon monoxide	0.08	0.08	0.08	3.68

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914A.d

Injection Date: 19-May-2014 18:37:26

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 80

Client ID:

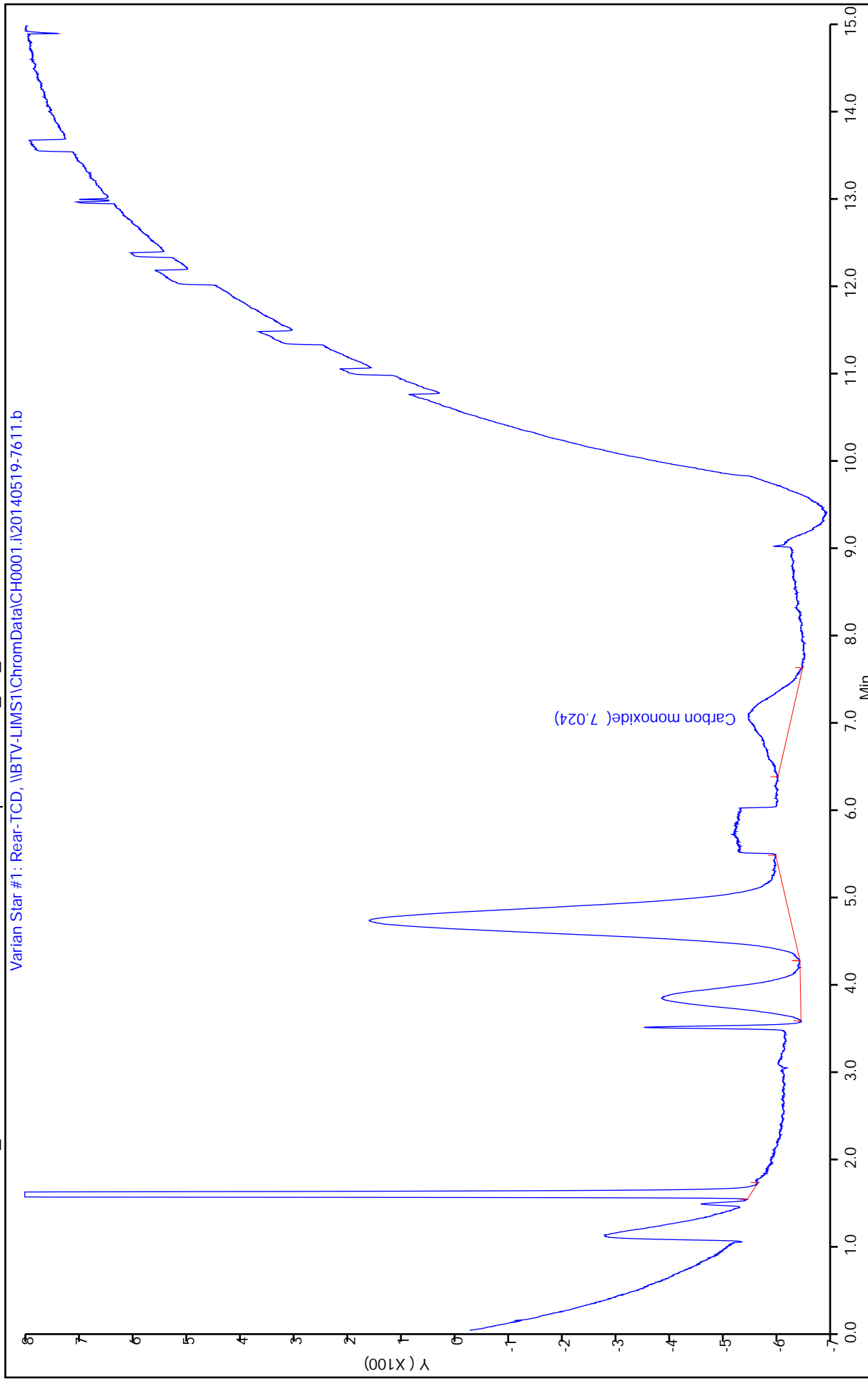
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914B.d

Injection Date: 19-May-2014 18:53:18

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 81

Client ID:

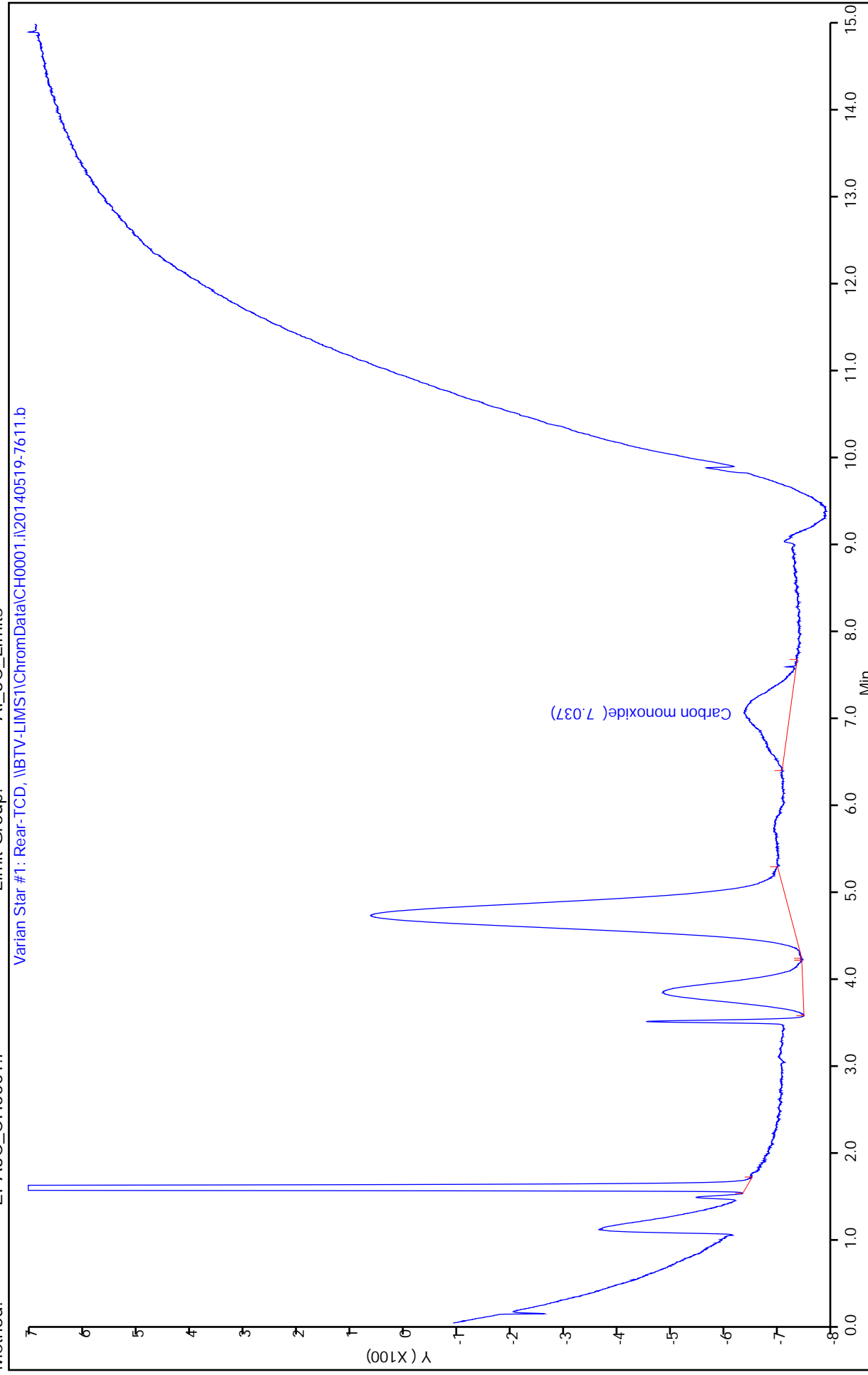
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



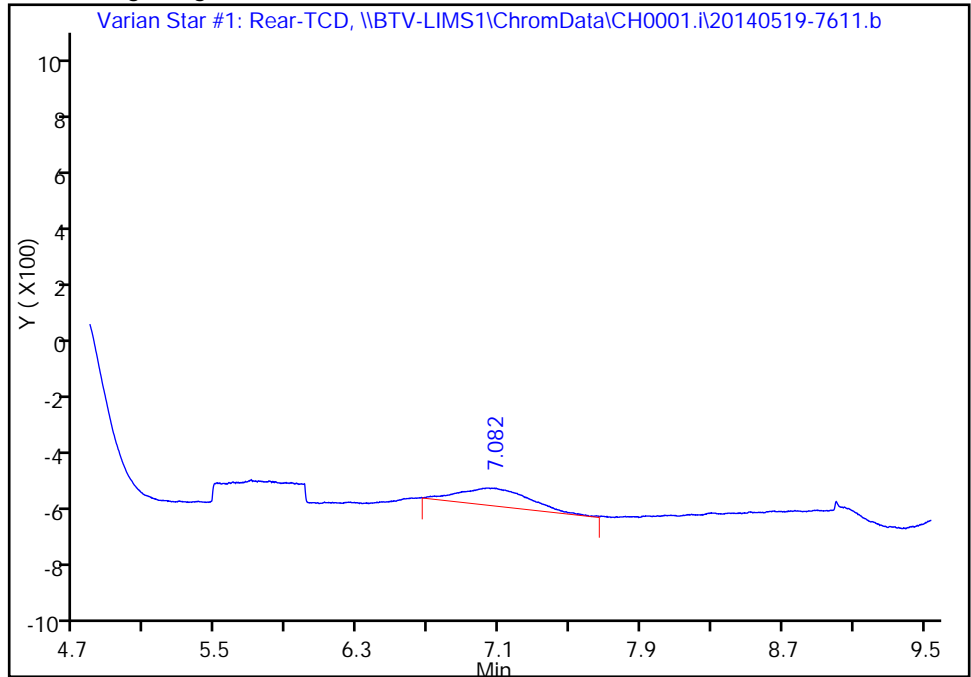
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914A.d
Injection Date: 19-May-2014 18:37:26 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 80
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

5 Carbon monoxide, CAS: 630-08-0

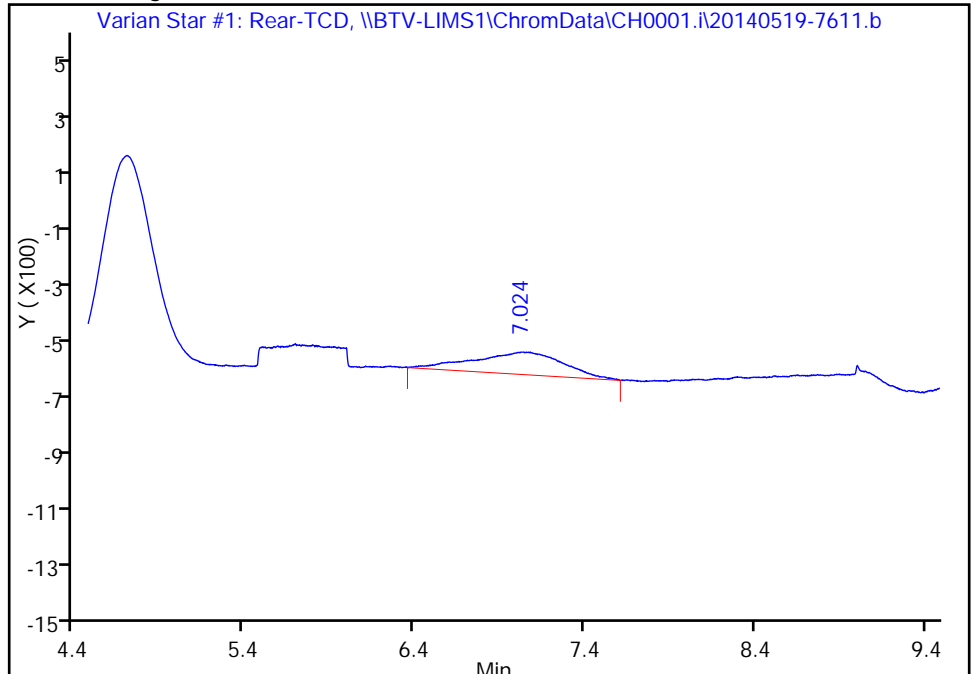
RT: 7.08
Response: 1681
Amount: 0.045268

Processing Integration Results



RT: 7.02
Response: 2798
Amount: 0.079769

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 10:19:29
Audit Action: Manually Integrated
Audit Reason: Baseline Event

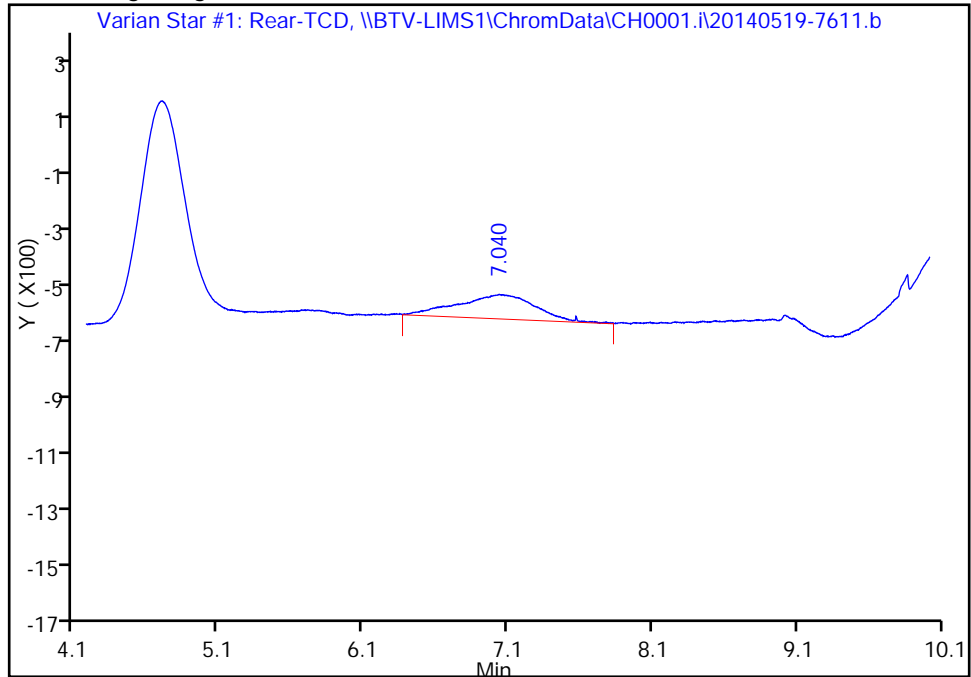
TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic10051914B.d
Injection Date: 19-May-2014 18:53:18 Instrument ID: CH0001.i
Lims ID: IC
Client ID:
Operator ID: BPL ALS Bottle#: 0 Worklist Smp#: 81
Purge Vol: 2.000 mL Dil. Factor: 1.0000
Method: EPA3C_CH0001.i Limit Group: AI_3C_Limits
Column: Detector Varian Star #1: Rear-TCD

5 Carbon monoxide, CAS: 630-08-0

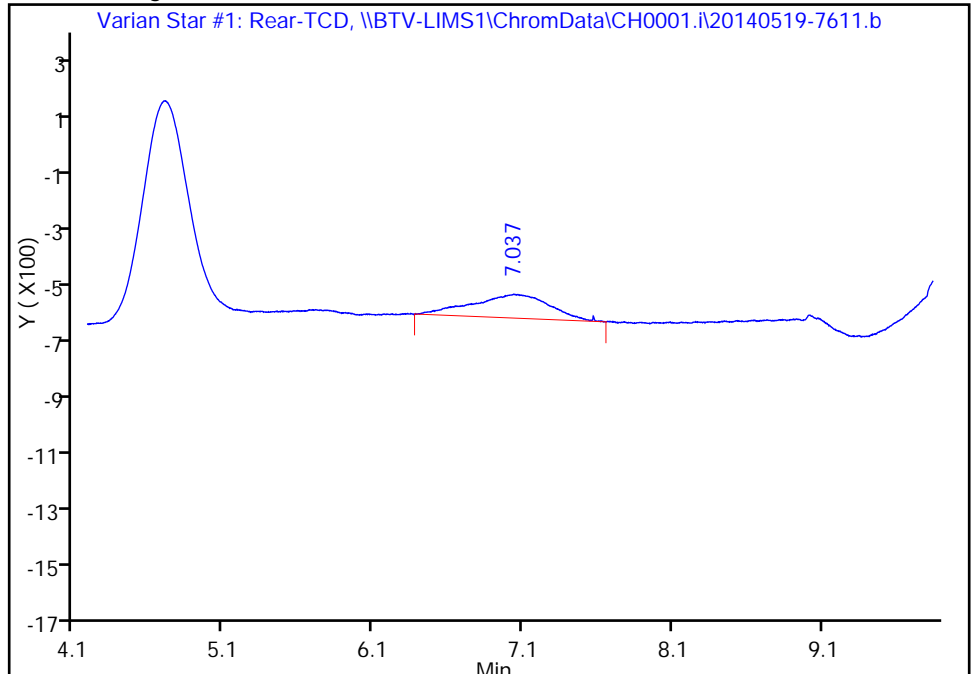
RT: 7.04
Response: 3103
Amount: 0.083241

Processing Integration Results



RT: 7.04
Response: 2903
Amount: 0.082763

Manual Integration Results



Reviewer: lyonsb, 20-May-2014 10:19:17
Audit Action: Manually Integrated
Audit Reason: Baseline Event

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914A.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 31
 Inject. Date: 20-May-2014 10:29:35 ALS Bottle#: 0 Worklist Smp#: 85
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC09051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:34 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 10:47:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
5 Carbon monoxide	7.086	7.064	0.022	337295	10.0	9.62	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 32
 Inject. Date: 20-May-2014 10:45:29 ALS Bottle#: 0 Worklist Smp#: 86
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CIC09051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:35 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 11:03:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
5 Carbon monoxide	7.057	7.064	-0.007	340722	10.0	9.71	

Processing 3C data for files:

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\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cic09051914b-72292-ai_3c_

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon monoxide	337295	340722	339008.5	1.01

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon monoxide	9.62	9.71	9.66	1.01

----- NMOC Correction-----
NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:34

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914A.d

Injection Date: 20-May-2014 10:29:35

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 85

Client ID:

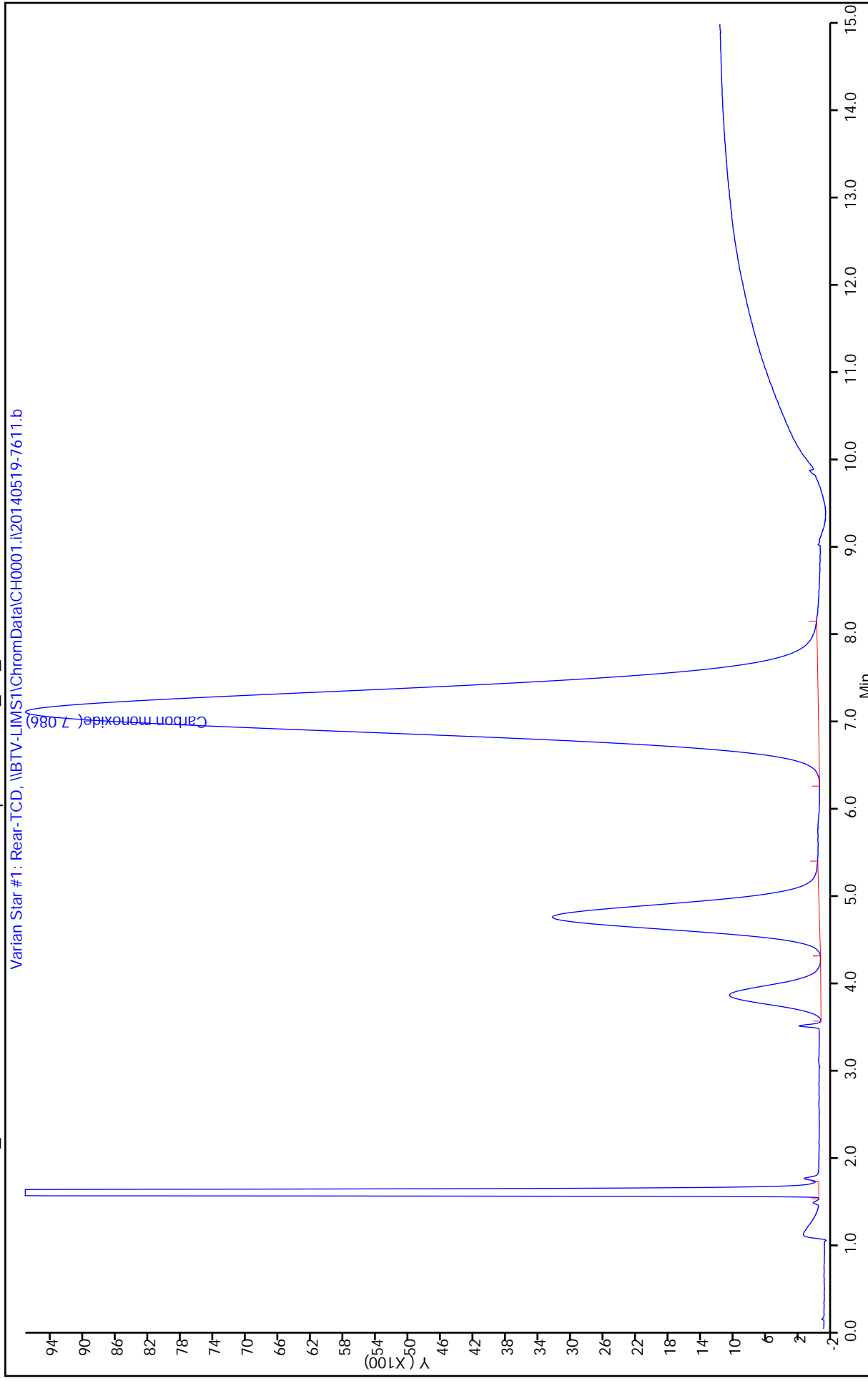
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AL_3C_Limits



Report Date: 20-May-2014 13:27:35

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d

Injection Date: 20-May-2014 10:45:29

Instrument ID: CH0001.i

Lims ID: IC

Operator ID: BPL

Worklist Smp#: 86

Client ID:

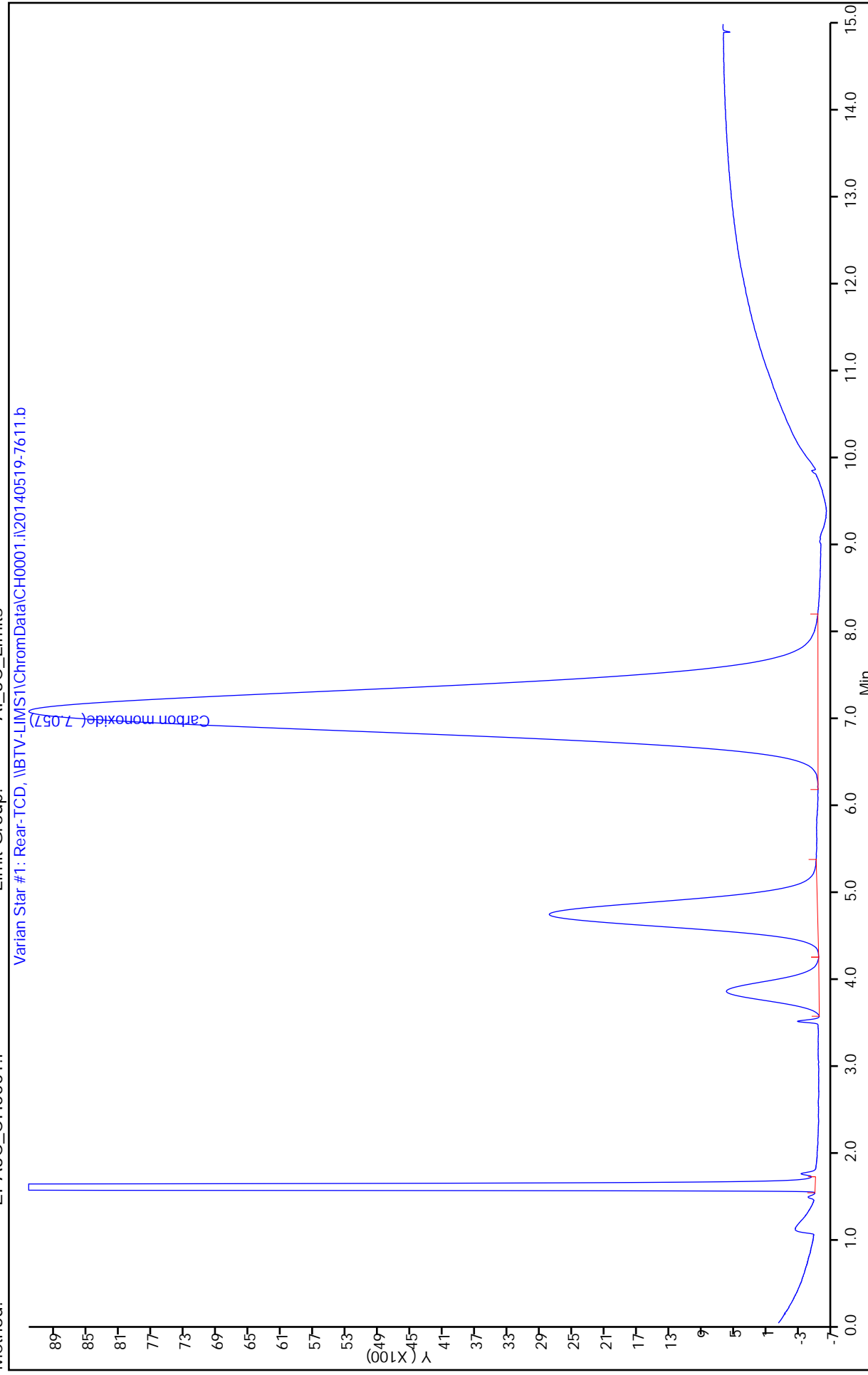
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM VII
AIR - GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab Sample ID: ICV 200-72381/11 Calibration Date: 05/20/2014 11:01
 Instrument ID: CH0001.i Calib Start Date: 05/19/2014 11:18
 GC Column: CTR-1 ID: 3.18 (mm) Calib End Date: 05/20/2014 10:29
 Lab File ID: 3cicv051914C.d-avg Conc. Units: % v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	33413	33775		5.05	5.00	1.1	
Oxygen	Ave	34727	33019		4.75	5.00	-4.9	
Nitrogen	Ave	37541	36238		4.83	5.00	-3.5	
Methane	Ave	30354	27218		3.59	4.00	-10.3	
Carbon monoxide	Ave	35076	38310		5.46	5.00	9.2	

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicv051914C.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 20-May-2014 11:01:20 ALS Bottle#: 0 Worklist Smp#: 87
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CICV051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist:

Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:35 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d

Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

First Level Reviewer: lyonsb Date: 20-May-2014 11:23:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.720	1.690	0.030	168756	5.00	5.05	
2 Oxygen	3.822	3.825	-0.003	165179	5.00	4.76	
3 Nitrogen	4.706	4.721	-0.015	181105	5.00	4.82	
4 Methane	6.521	6.532	-0.011	108843	4.00	3.59	
5 Carbon monoxide	7.037	7.064	-0.027	191427	5.00	5.46	

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicv051914D.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 20-May-2014 11:17:21 ALS Bottle#: 0 Worklist Smp#: 88
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3CICV051914,1
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist:
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 20-May-2014 13:27:35 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK012

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.720	1.690	0.030	168989	5.00	5.06	
2 Oxygen	3.825	3.825	0.000	165013	5.00	4.75	
3 Nitrogen	4.713	4.721	-0.008	181274	5.00	4.83	
4 Methane	6.528	6.532	-0.004	108897	4.00	3.59	
5 Carbon monoxide	7.048	7.064	-0.016	191676	5.00	5.46	

Processing 3C data for files:

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\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cicv051914d-72292-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	168756	168989	168872.5	0.14
Oxygen	165179	165013	165096	0.1
Nitrogen	181105	181274	181189.5	0.09
Methane	108843	108897	108870	0.05
Carbon monoxide	191427	191676	191551.5	0.13

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.05	5.06	5.05	0.14
Oxygen	4.76	4.75	4.75	0.1
Nitrogen	4.82	4.83	4.83	0.09
Methane	3.59	3.59	3.59	0.05
Carbon monoxide	5.46	5.46	5.46	0.13

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 20-May-2014 13:27:36

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicv051914C.d

Injection Date: 20-May-2014 11:01:20

Instrument ID: CH0001.i

Lims ID: ICV

Operator ID: BPL

Worklist Smp#: 87

Client ID:

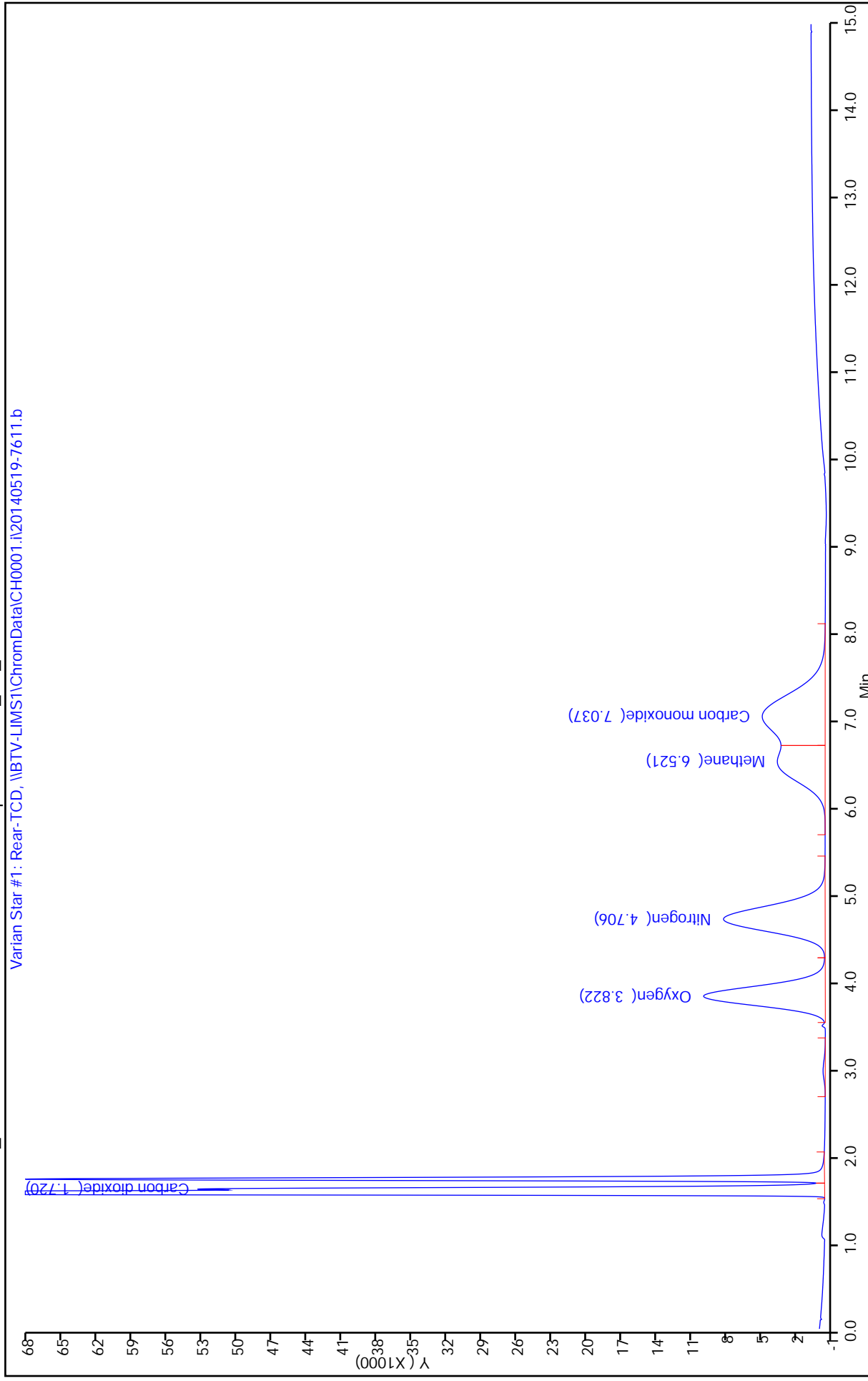
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b

Report Date: 20-May-2014 13:27:36

Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cicv051914D.d

Injection Date: 20-May-2014 11:17:21

Instrument ID: CH0001.i

Lims ID: ICV

Operator ID: BPL

Worklist Smp#: 88

Client ID:

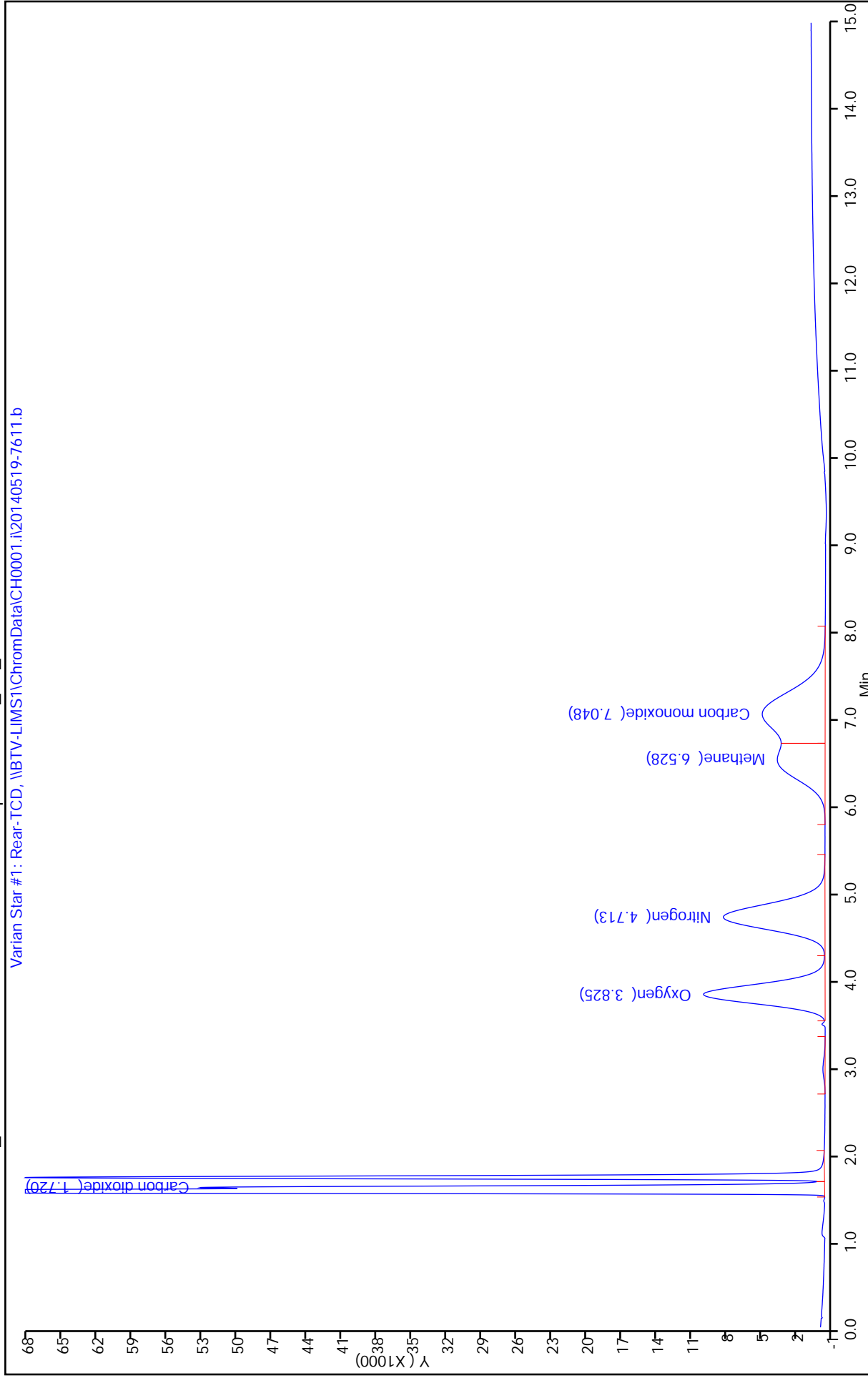
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM VII
AIR - GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab Sample ID: CCV 200-80106/1 Calibration Date: 11/06/2014 11:03
 Instrument ID: CH0001.i Calib Start Date: 05/19/2014 11:18
 GC Column: CTR-1 ID: 3.18 (mm) Calib End Date: 05/20/2014 10:29
 Lab File ID: 3ccv110614001.d-avg Conc. Units: % v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	33413	33858		5.06	5.00	1.3	20.0
Oxygen	Ave	34727	33099		4.75	5.00	-4.7	20.0
Nitrogen	Ave	37541	36148		4.81	5.00	-3.7	20.0
Methane	Ave	30354	26475		3.49	4.00	-12.8	20.0
Carbon monoxide	Ave	35076	37939		5.42	5.00	8.2	20.0

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccv110614001.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 06-Nov-2014 11:03:05 ALS Bottle#: 0 Worklist Smp#: 2
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccv110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 12:04:31 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.724	1.722	0.002	169289	5.00	5.07	
2 Oxygen	3.827	3.827	0.000	165493	5.00	4.77	
3 Nitrogen	4.709	4.710	-0.001	180740	5.00	4.81	
4 Methane	6.511	6.533	-0.022	105901	4.00	3.49	
5 Carbon monoxide	6.999	7.018	-0.019	189696	5.00	5.41	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccv110614.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 06-Nov-2014 10:45:25 ALS Bottle#: 0 Worklist Smp#: 1
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccv110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 12:04:31 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.722	1.722	0.000	168730	5.00	5.05	
2 Oxygen	3.827	3.827	0.000	164360	5.00	4.73	
3 Nitrogen	4.710	4.710	0.000	180710	5.00	4.81	
4 Methane	6.533	6.533	0.000	106250	4.00	3.50	
5 Carbon monoxide	7.018	7.018	0.000	190474	5.00	5.43	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3ccv110614001-80047-ai_3c_

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3ccv110614-80047-ai_3c_lim

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	169289	168730	169009.5	0.33
Oxygen	165493	164360	164926.5	0.69
Nitrogen	180740	180710	180725	0.02
Methane	105901	106250	106075.5	0.33
Carbon monoxide	189696	190474	190085	0.41

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.07	5.05	5.06	0.33
Oxygen	4.77	4.73	4.75	0.69
Nitrogen	4.81	4.81	4.81	0.02
Methane	3.49	3.5	3.49	0.33
Carbon monoxide	5.41	5.43	5.42	0.41

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccv110614001.d

Injection Date: 06-Nov-2014 11:03:05

Instrument ID: CH0001.i

Lims ID: CCV

Operator ID: BPL

Worklist Smp#: 2

Client ID:

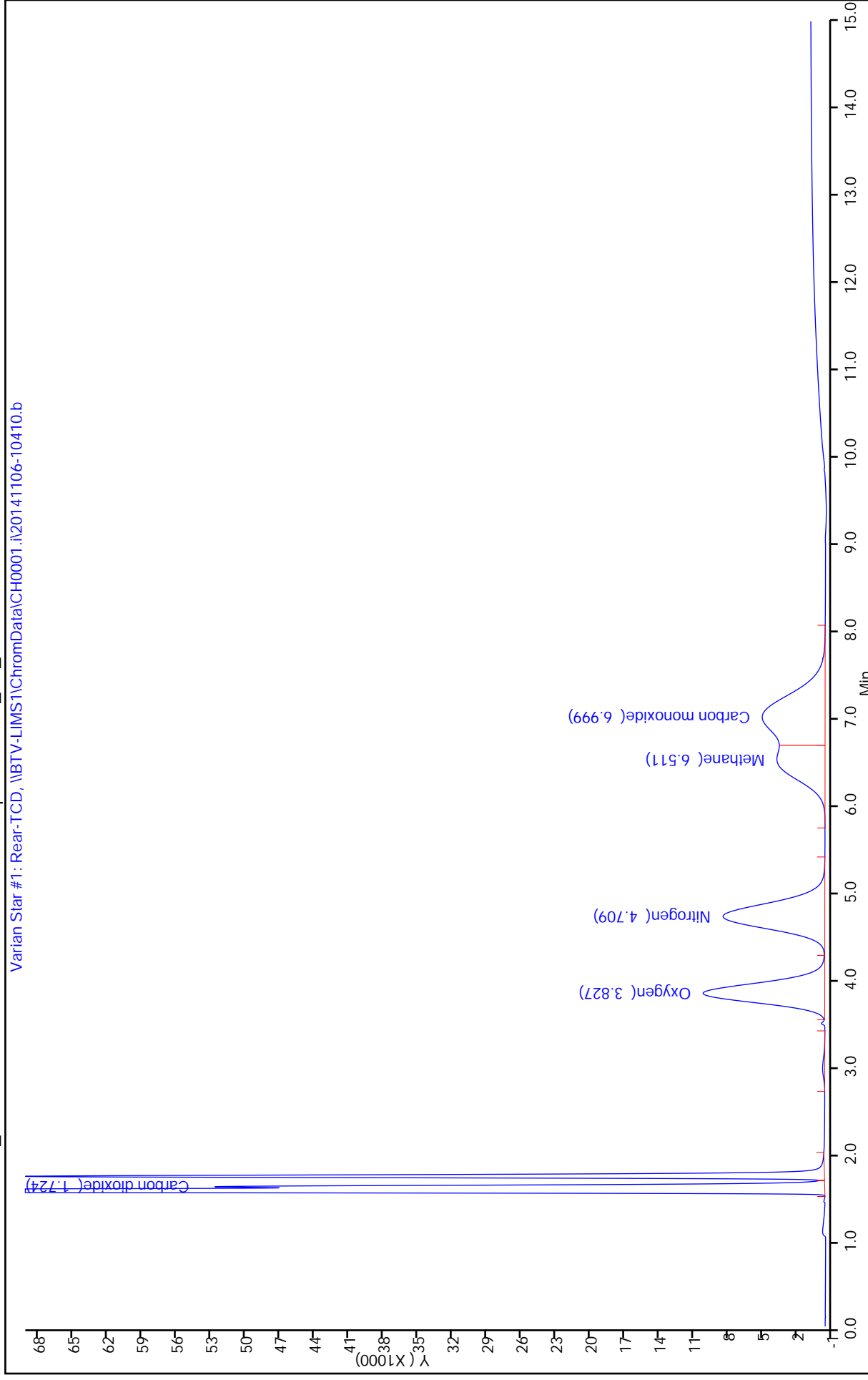
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccv110614.d

Injection Date: 06-Nov-2014 10:45:25

Instrument ID: CH0001.i

Lims ID: CCV

Operator ID: BPL

Worklist Smp#: 1

Client ID:

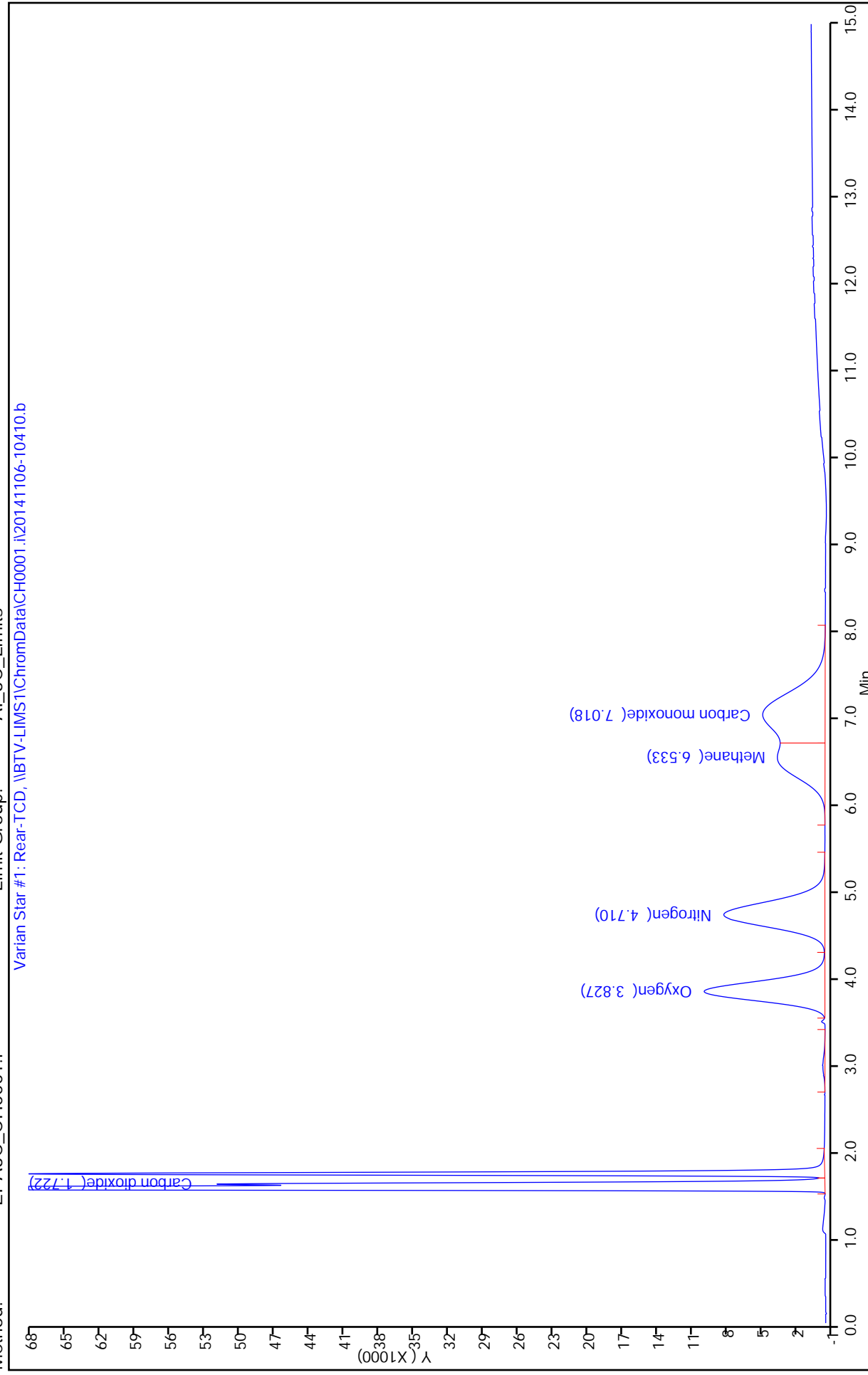
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM VII
AIR - GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab Sample ID: CCV 200-80131/1 Calibration Date: 11/07/2014 09:16
 Instrument ID: CH0001.i Calib Start Date: 05/19/2014 11:18
 GC Column: CTR-1 ID: 3.18 (mm) Calib End Date: 05/20/2014 10:29
 Lab File ID: 3cccv110714a.d-avg Conc. Units: % v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	33413	33702		5.03	5.00	0.9	20.0
Oxygen	Ave	34727	32569		4.71	5.00	-6.2	20.0
Nitrogen	Ave	37541	35923		4.83	5.00	-4.3	20.0
Methane	Ave	30354	26276		3.50	4.00	-13.4	20.0
Carbon monoxide	Ave	35076	37999		5.44	5.00	8.3	20.0

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3cccv110714a.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 07-Nov-2014 09:16:28 ALS Bottle#: 0 Worklist Smp#: 1
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:58 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.724	1.724	0.000	168509	5.00	5.04	
2 Oxygen	3.825	3.825	0.000	162845	5.00	4.69	
3 Nitrogen	4.704	4.704	0.000	179617	5.00	4.78	
4 Methane	6.514	6.514	0.000	105103	4.00	3.46	
5 Carbon monoxide	7.002	7.002	0.000	189995	5.00	5.42	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3cccv110714b.d
 Lims ID: CCV
 Client ID:
 Sample Type: CCV
 Inject. Date: 07-Nov-2014 09:33:09 ALS Bottle#: 0 Worklist Smp#: 2
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:58 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.718	1.724	-0.006	167917	5.00	5.03	
2 Oxygen	3.813	3.825	-0.012	164143	5.00	4.73	
3 Nitrogen	4.692	4.704	-0.012	182668	5.00	4.87	
4 Methane	6.508	6.514	-0.006	107162	4.00	3.53	
5 Carbon monoxide	6.987	7.002	-0.015	191311	5.00	5.45	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

Processing 3C data for files:

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\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cccv110714b-80105-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	168509	167917	168213	0.35
Oxygen	162845	164143	163494	0.79
Nitrogen	179617	182668	181142.5	1.68
Methane	105103	107162	106132.5	1.94
Carbon monoxide	189995	191311	190653	0.69

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.04	5.03	5.03	0.35
Oxygen	4.69	4.73	4.71	0.79
Nitrogen	4.78	4.87	4.83	1.68
Methane	3.46	3.53	3.5	1.94
Carbon monoxide	5.42	5.45	5.44	0.69

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 07-Nov-2014 11:12:58

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3cccv110714a.d

Injection Date: 07-Nov-2014 09:16:28

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: CCV

Worklist Smp#: 1

Client ID:

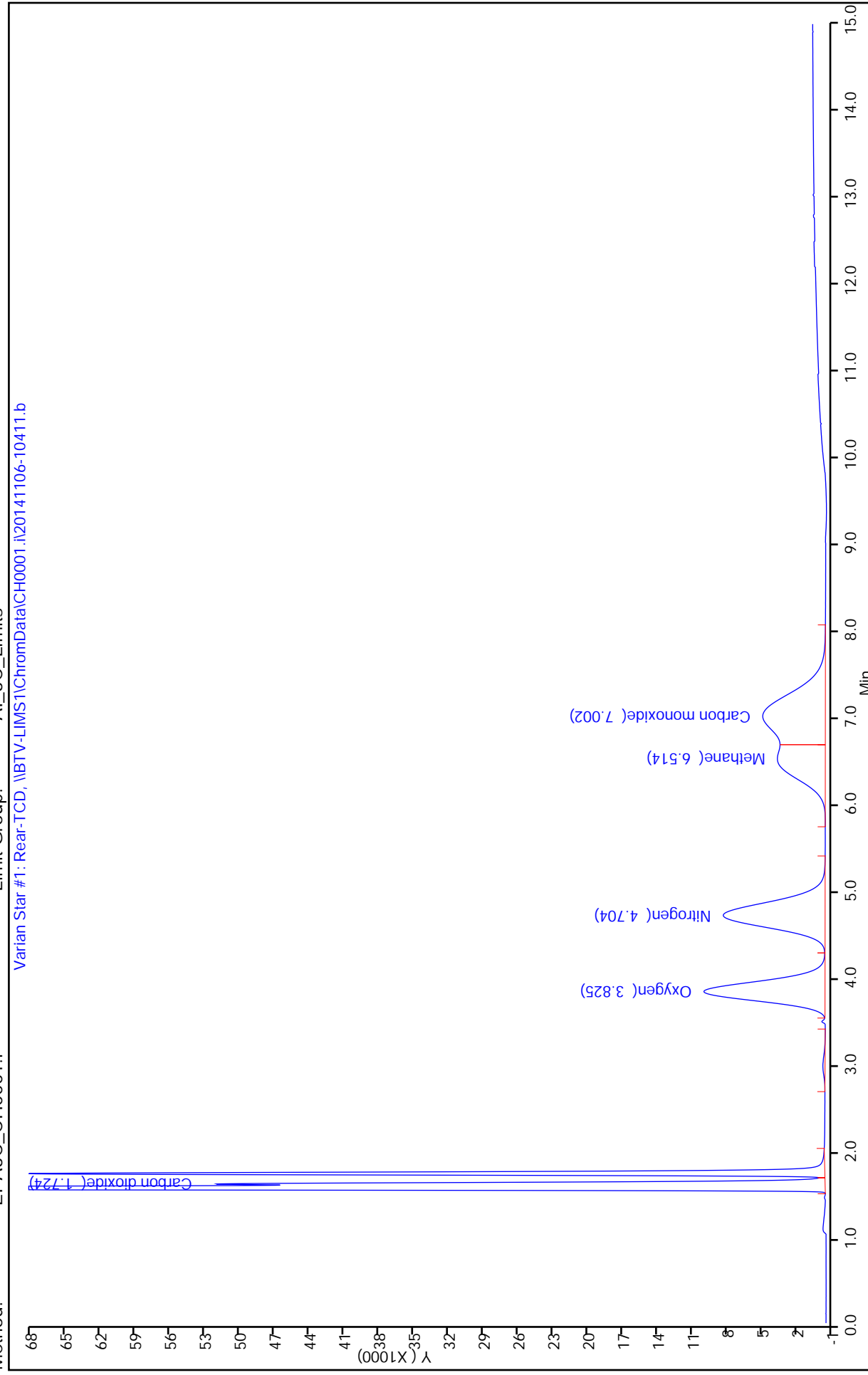
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b

Report Date: 07-Nov-2014 11:12:58

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3cccv110714b.d

Injection Date: 07-Nov-2014 09:33:09

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: CCV

Worklist Smp#: 2

Client ID:

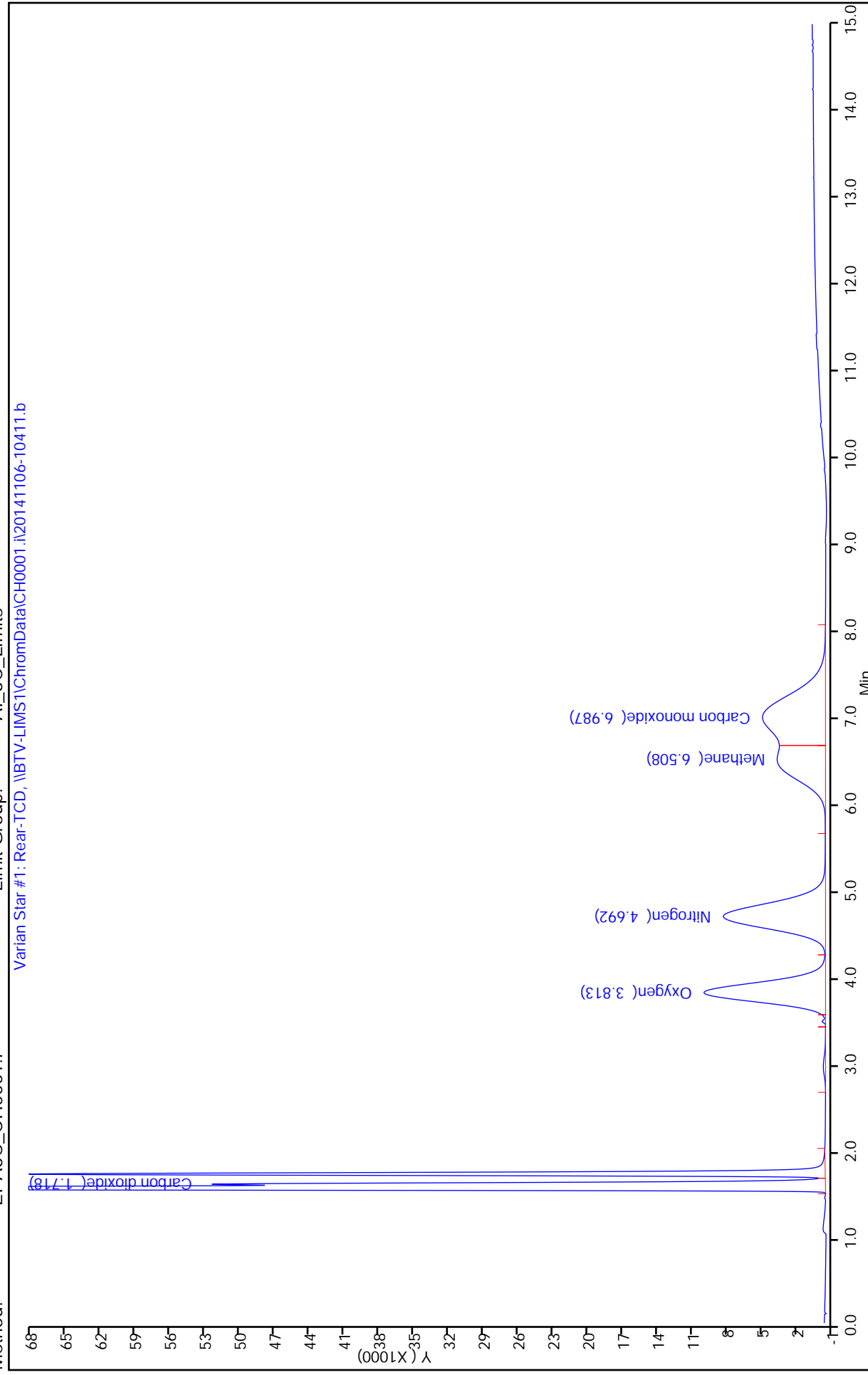
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b

FORM VII
AIR - GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab Sample ID: CCVC 200-80106/10 Calibration Date: 11/07/2014 09:33
 Instrument ID: CH0001.i Calib Start Date: 05/19/2014 11:18
 GC Column: CTR-1 ID: 3.18 (mm) Calib End Date: 05/20/2014 10:29
 Lab File ID: 3cccvc110614001.d-avg Conc. Units: % v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	33413	33643		5.03	5.00	0.7	20.0
Oxygen	Ave	34727	32699		4.71	5.00	-5.8	20.0
Nitrogen	Ave	37541	36229		4.83	5.00	-3.5	20.0
Methane	Ave	30354	26533		3.50	4.00	-12.6	20.0
Carbon monoxide	Ave	35076	38131		5.44	5.00	8.7	20.0

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccvc110614001.d
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 07-Nov-2014 09:33:09 ALS Bottle#: 0 Worklist Smp#: 41
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 09:53:38 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 07-Nov-2014 09:53:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.718	1.722	-0.004	167917	5.00	5.03	
2 Oxygen	3.813	3.827	-0.014	164143	5.00	4.73	
3 Nitrogen	4.692	4.710	-0.018	182668	5.00	4.87	
4 Methane	6.508	6.533	-0.025	107162	4.00	3.53	
5 Carbon monoxide	6.987	7.018	-0.031	191311	5.00	5.45	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccvc110614.d
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 07-Nov-2014 09:16:28 ALS Bottle#: 0 Worklist Smp#: 40
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110614
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 09:53:37 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 07-Nov-2014 09:41:07

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.724	1.722	0.002	168509	5.00	5.04	
2 Oxygen	3.825	3.827	-0.002	162845	5.00	4.69	
3 Nitrogen	4.704	4.710	-0.006	179617	5.00	4.78	
4 Methane	6.514	6.533	-0.019	105103	4.00	3.46	
5 Carbon monoxide	7.002	7.018	-0.016	189995	5.00	5.42	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

Processing 3C data for files:

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\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cccvc110614-80047-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	167917	168509	168213	0.35
Oxygen	164143	162845	163494	0.79
Nitrogen	182668	179617	181142.5	1.68
Methane	107162	105103	106132.5	1.94
Carbon monoxide	191311	189995	190653	0.69

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.03	5.04	5.03	0.35
Oxygen	4.73	4.69	4.71	0.79
Nitrogen	4.87	4.78	4.83	1.68
Methane	3.53	3.46	3.5	1.94
Carbon monoxide	5.45	5.42	5.44	0.69

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3cccvc110614001.d

Injection Date: 07-Nov-2014 09:33:09

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: CCVC

Worklist Smp#: 41

Client ID:

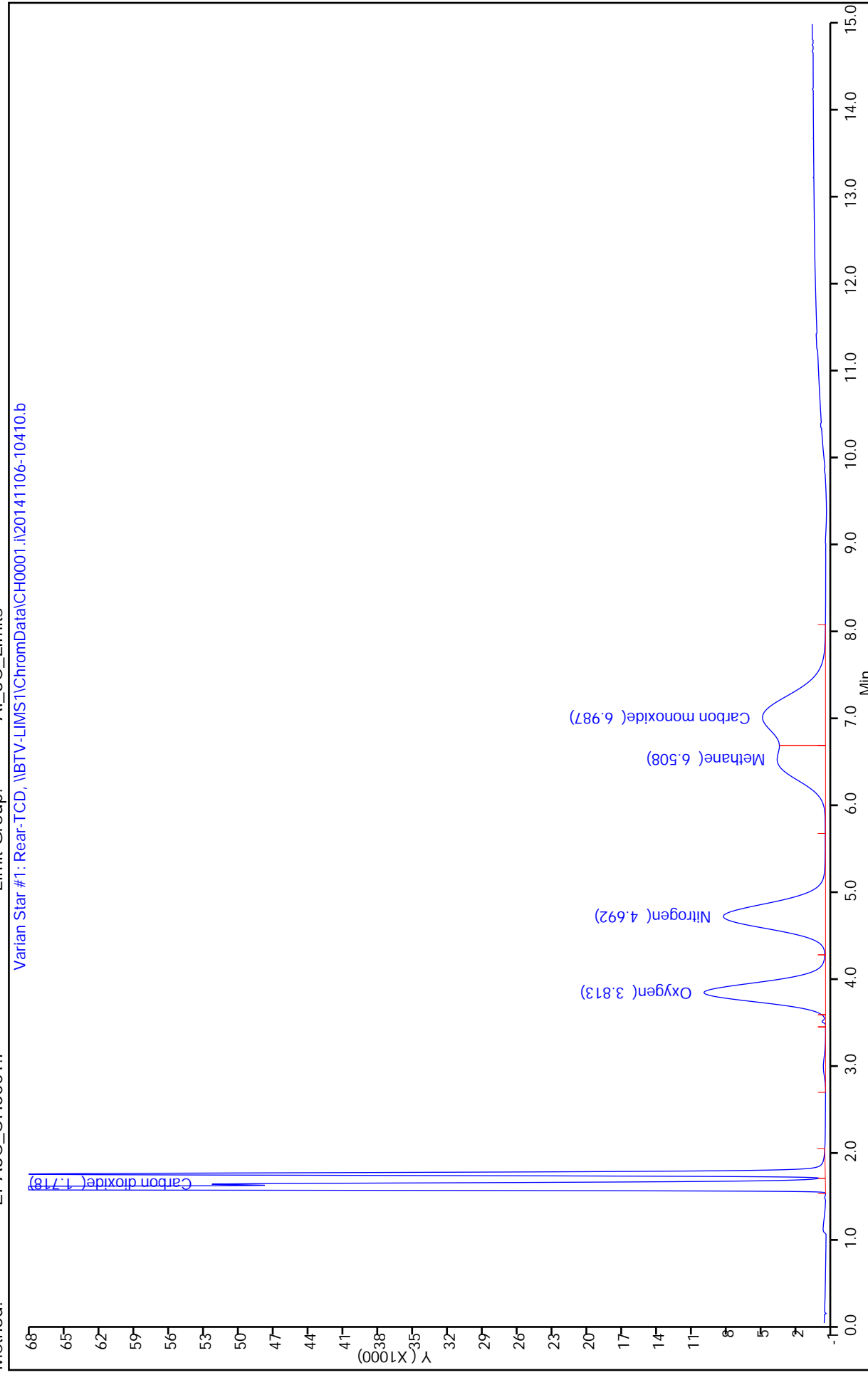
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3ccvc110614.d

Injection Date: 07-Nov-2014 09:16:28

Instrument ID: CH0001.i

Lims ID: CCVC

Operator ID: BPL

Worklist Smp#: 40

Client ID:

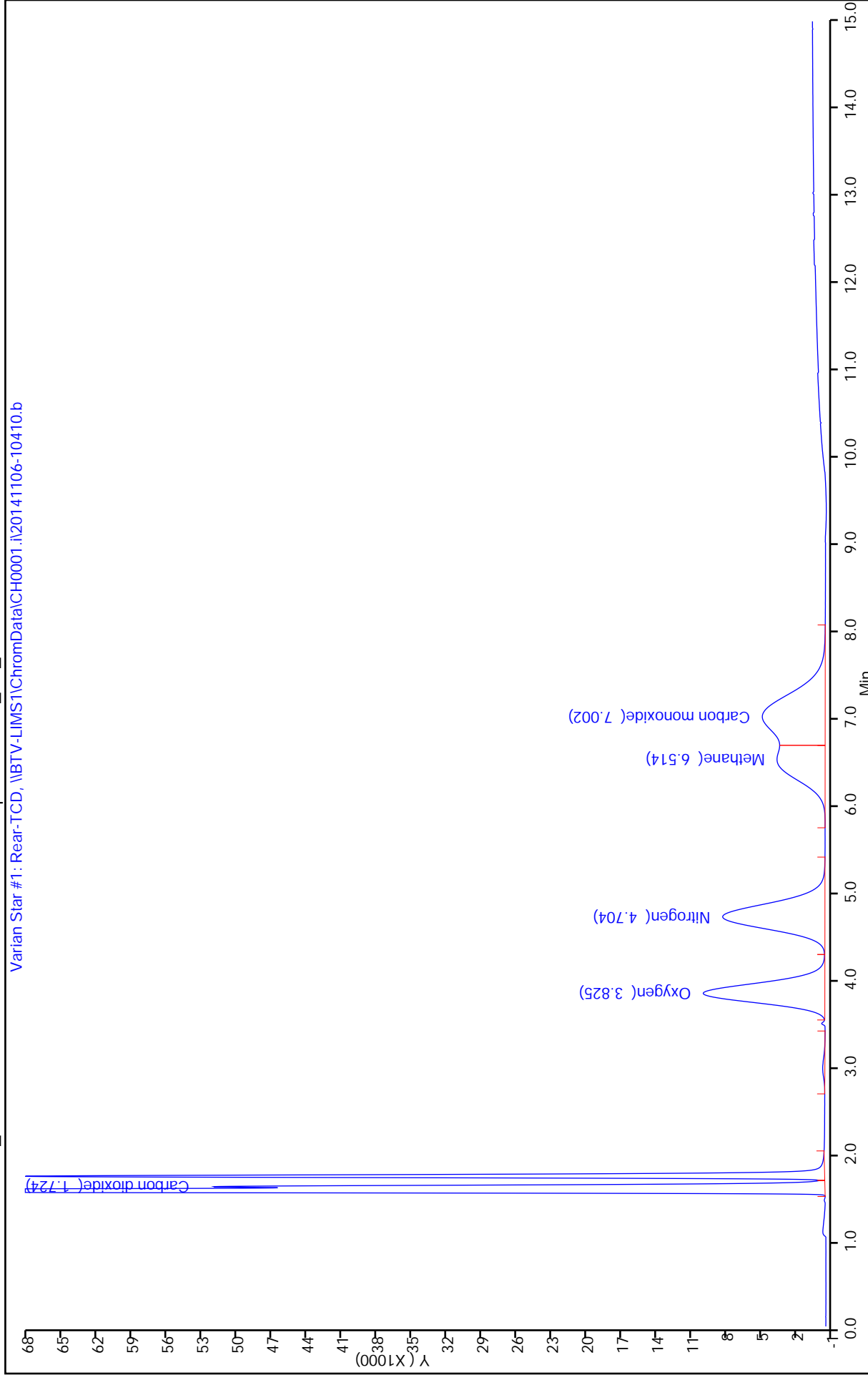
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM VII
AIR - GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Lab Sample ID: CCVC 200-80131/7 Calibration Date: 11/07/2014 13:10
 Instrument ID: CH0001.i Calib Start Date: 05/19/2014 11:18
 GC Column: CTR-1 ID: 3.18 (mm) Calib End Date: 05/20/2014 10:29
 Lab File ID: 3cccvc110714001.d-avg Conc. Units: % v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	33413	33633		5.03	5.00	0.7	20.0
Oxygen	Ave	34727	32715		4.71	5.00	-5.8	20.0
Nitrogen	Ave	37541	35998		4.79	5.00	-4.1	20.0
Methane	Ave	30354	26616		3.51	4.00	-12.3	20.0
Carbon monoxide	Ave	35076	38082		5.43	5.00	8.6	20.0

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3ccvc110714001.d
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 07-Nov-2014 13:10:43 ALS Bottle#: 0 Worklist Smp#: 16
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110714
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:28:10 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.719	1.724	-0.005	167487	5.00	5.01	
2 Oxygen	3.812	3.825	-0.013	162860	5.00	4.69	
3 Nitrogen	4.692	4.704	-0.012	179451	5.00	4.78	
4 Methane	6.509	6.514	-0.005	106362	4.00	3.50	
5 Carbon monoxide	6.987	7.002	-0.015	189926	5.00	5.41	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3ccvc110714.d
 Lims ID: CCVC
 Client ID:
 Sample Type: CCVC
 Inject. Date: 07-Nov-2014 12:53:41 ALS Bottle#: 0 Worklist Smp#: 15
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3ccvc110714
 Operator ID: BPL Instrument ID: CH0001.i
 Sublist: chrom-EPA3C_CH0001.i*sub1
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 13:28:09 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.723	1.724	-0.001	168847	5.00	5.05	
2 Oxygen	3.828	3.825	0.003	164294	5.00	4.73	
3 Nitrogen	4.713	4.704	0.009	180528	5.00	4.81	
4 Methane	6.533	6.514	0.019	106562	4.00	3.51	
5 Carbon monoxide	7.028	7.002	0.026	190898	5.00	5.44	

Reagents:

AT3CCCVs_00058 Amount Added: 2.00 Units: mL

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cccvc110714001-80105-ai_3

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3cccvc110714-80105-ai_3c_1

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	167487	168847	168167	0.81
Oxygen	162860	164294	163577	0.88
Nitrogen	179451	180528	179989.5	0.6
Methane	106362	106562	106462	0.19
Carbon monoxide	189926	190898	190412	0.51

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.01	5.05	5.03	0.81
Oxygen	4.69	4.73	4.71	0.88
Nitrogen	4.78	4.81	4.79	0.6
Methane	3.5	3.51	3.51	0.19
Carbon monoxide	5.41	5.44	5.43	0.51

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3ccvc110714001.d

Injection Date: 07-Nov-2014 13:10:43

Instrument ID: CH0001.i

Lims ID: CCVC

Operator ID: BPL

Worklist Smp#: 16

Client ID:

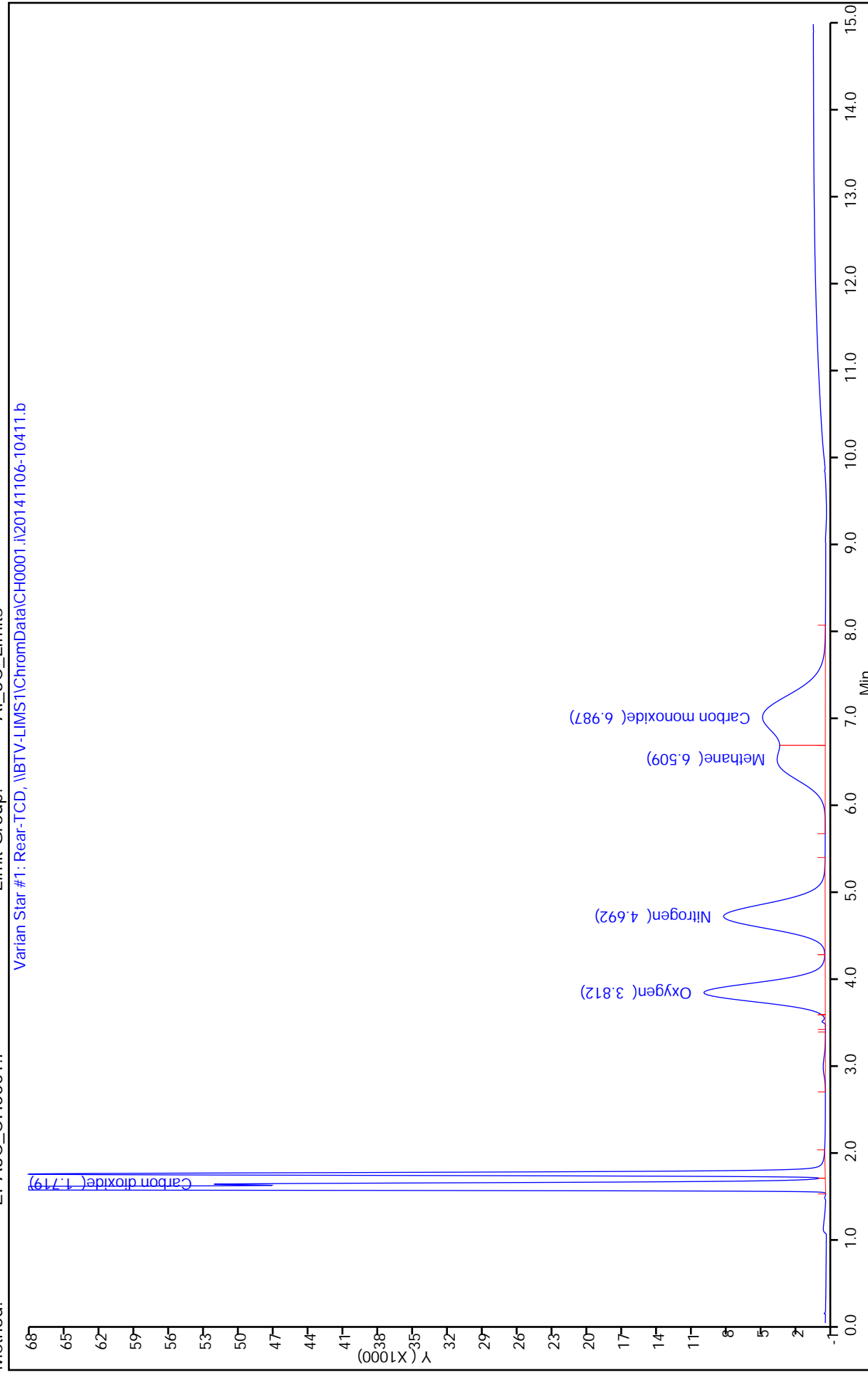
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3cccvc110714.d

Injection Date: 07-Nov-2014 12:53:41

Instrument ID: CH0001.i

Lims ID: CCVC

Operator ID: BPL

Worklist Smp#: 15

Client ID:

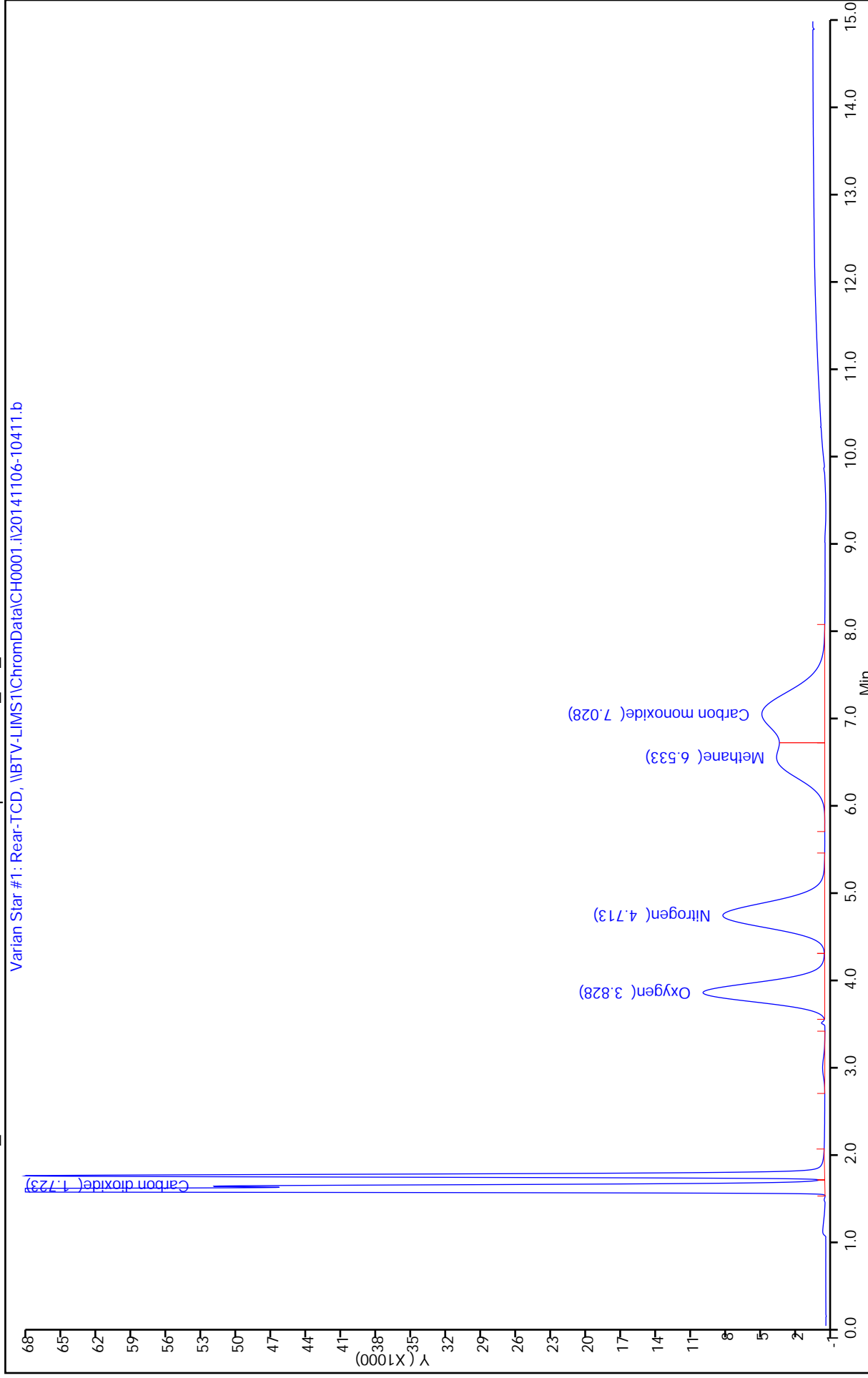
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: _____ Lab Sample ID: MB 200-80106/3
 Matrix: Air Lab File ID: mb110614001.d-avg
 Analysis Method: EPA 3C Date Collected: _____
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 12:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.040	U	0.040	0.040

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\mb110614001.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 06-Nov-2014 12:23:15 ALS Bottle#: 0 Worklist Smp#: 8
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: mb110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 13:01:53 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 06-Nov-2014 13:01:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.701	4.710	-0.009	2493		0.0664	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\mb110614002.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 06-Nov-2014 12:39:06 ALS Bottle#: 0 Worklist Smp#: 9
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: mb110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 13:01:53 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 06-Nov-2014 13:01:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.682	4.710	-0.028	2551		0.0680	

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\mb110614001-80047-ai_3c_li

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\mb110614002-80047-ai_3c_li

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	0	0	0	0
Oxygen	0	0	0	0
Nitrogen	2493	2551	2522	2.3
Methane	0	0	0	0
Carbon monoxide	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	0	0	0	0
Oxygen	0	0	0	0
Nitrogen	0.07	0.07	0.07	2.3
Methane	0	0	0	0
Carbon monoxide	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 06-Nov-2014 13:01:53

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\mb110614001.d

Injection Date: 06-Nov-2014 12:23:15

Instrument ID: CH0001.i

Lims ID: MB

Operator ID: BPL

Worklist Smp#: 8

Client ID:

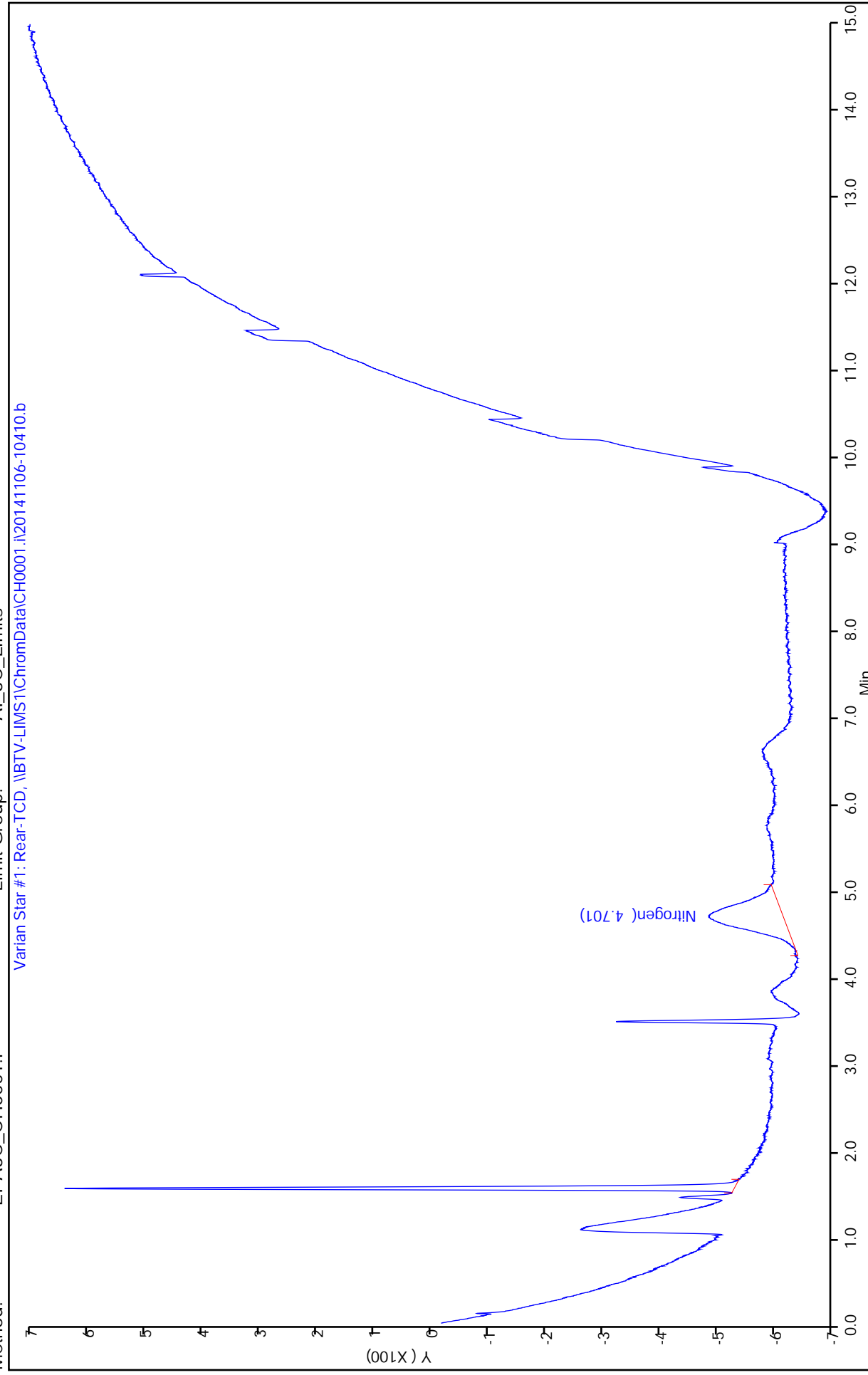
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 06-Nov-2014 13:01:53

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\mb110614002.d

Injection Date: 06-Nov-2014 12:39:06

Instrument ID: CH0001.i

Lims ID: MB

Operator ID: BPL

Worklist Smp#: 9

Client ID:

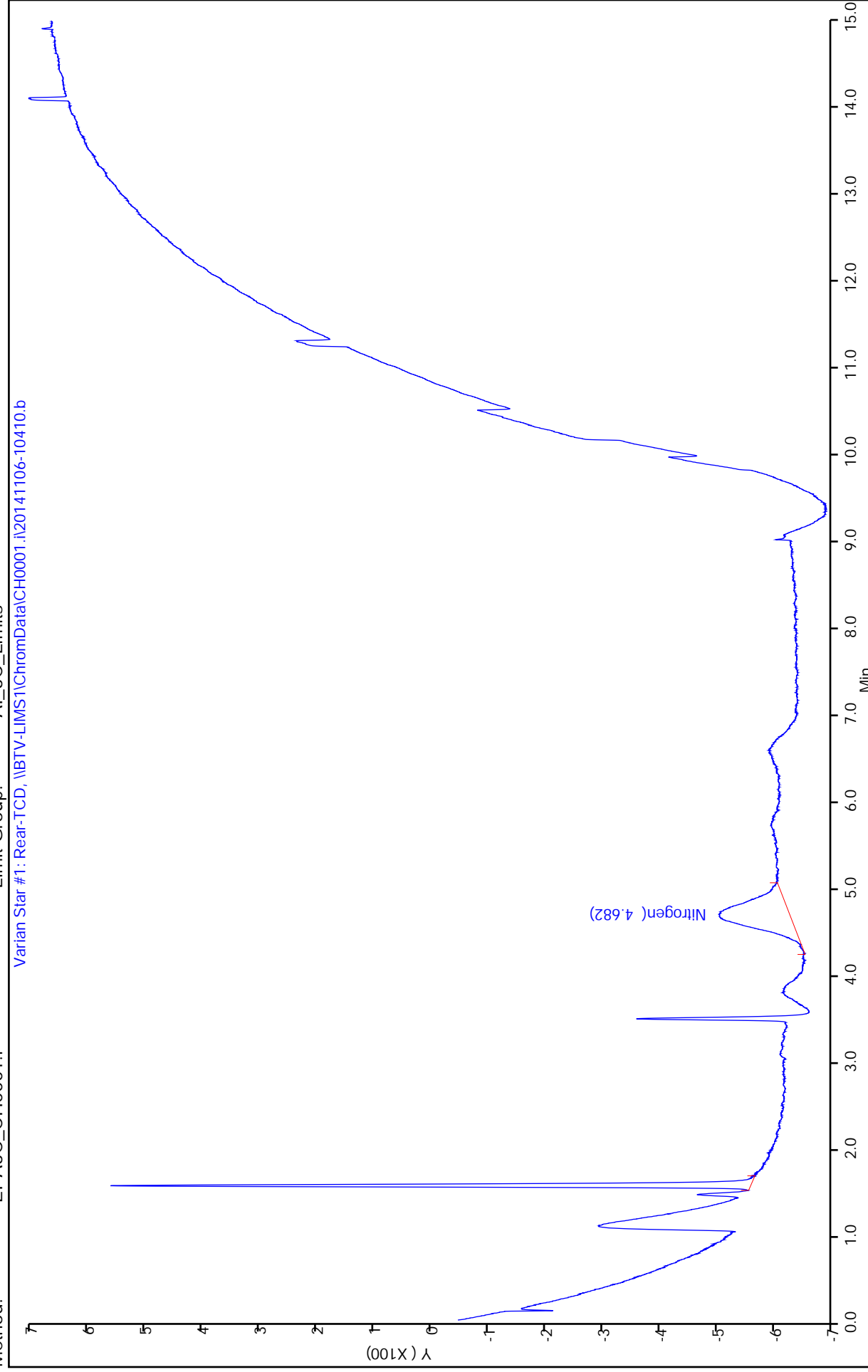
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: _____ Lab Sample ID: MB 200-80131/3
 Matrix: Air Lab File ID: mb110614003.d-avg
 Analysis Method: EPA 3C Date Collected: _____
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 10:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80131 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	0.040	U	0.040	0.040

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\mb110614003.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 07-Nov-2014 10:38:07 ALS Bottle#: 0 Worklist Smp#: 7
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: mb110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:24 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 07-Nov-2014 11:12:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.738	4.704	0.034	2454		0.0654	

TestAmerica Burlington
 Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\mb110614004.d
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 07-Nov-2014 10:53:59 ALS Bottle#: 0 Worklist Smp#: 8
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: mb110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:24 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

First Level Reviewer: lyonsb Date: 07-Nov-2014 11:12:24

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
3 Nitrogen	4.687	4.704	-0.017	2462		0.0656	

Processing 3C data for files:

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\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\mb110614004-80105-ai_3c_li

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	0	0	0	0
Oxygen	0	0	0	0
Nitrogen	2454	2462	2458	0.33
Methane	0	0	0	0
Carbon monoxide	0	0	0	0

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	0	0	0	0
Oxygen	0	0	0	0
Nitrogen	0.07	0.07	0.07	0.33
Methane	0	0	0	0
Carbon monoxide	0	0	0	0

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 07-Nov-2014 11:12:56

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\mb110614003.d

Injection Date: 07-Nov-2014 10:38:07

Instrument ID: CH0001.i

Lims ID: MB

Operator ID: BPL

Worklist Smp#: 7

Client ID:

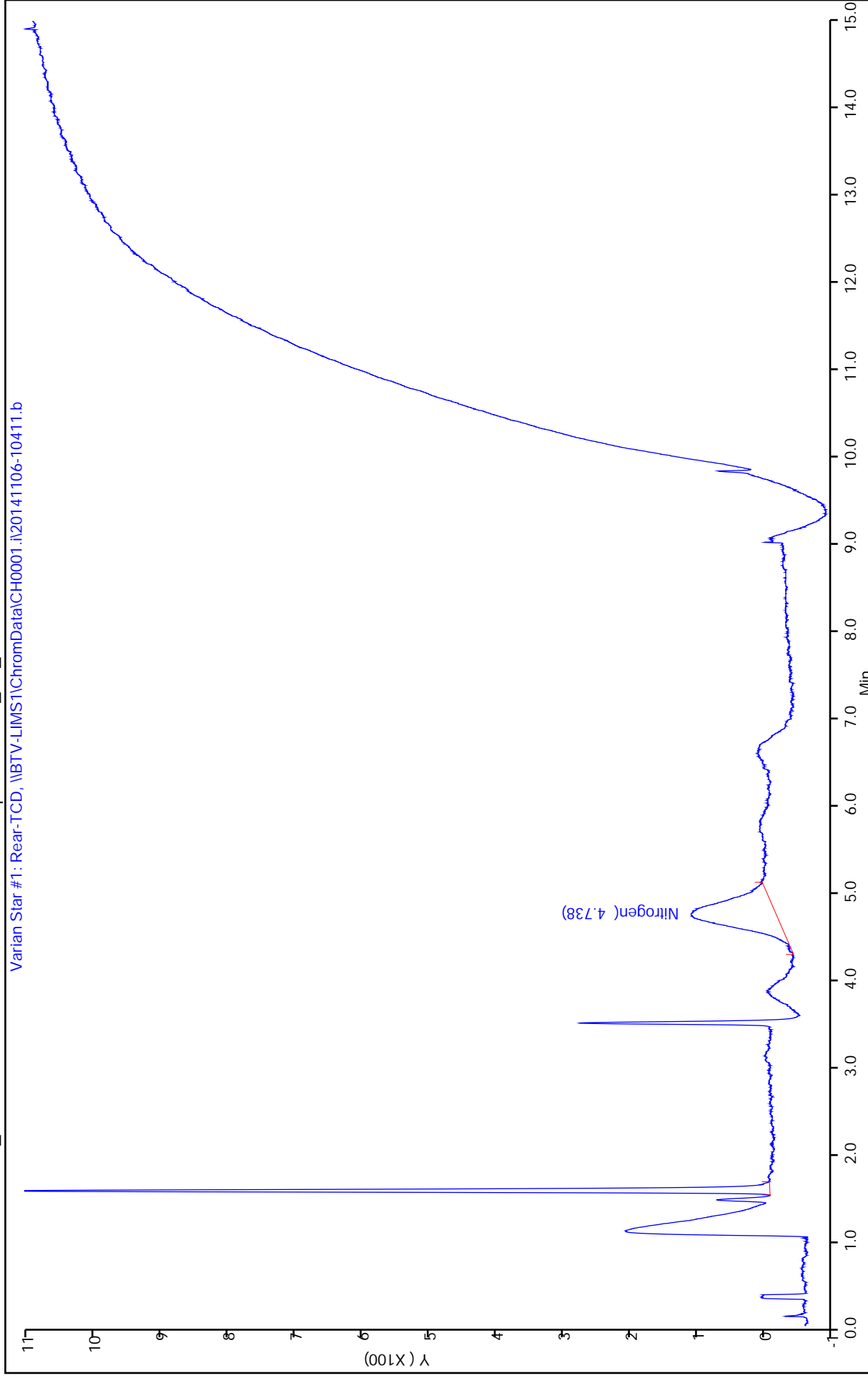
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 07-Nov-2014 11:12:56

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\mb110614004.d

Injection Date: 07-Nov-2014 10:53:59

Instrument ID: CH0001.i

Lims ID: MB

Operator ID: BPL

Worklist Smp#: 8

Client ID:

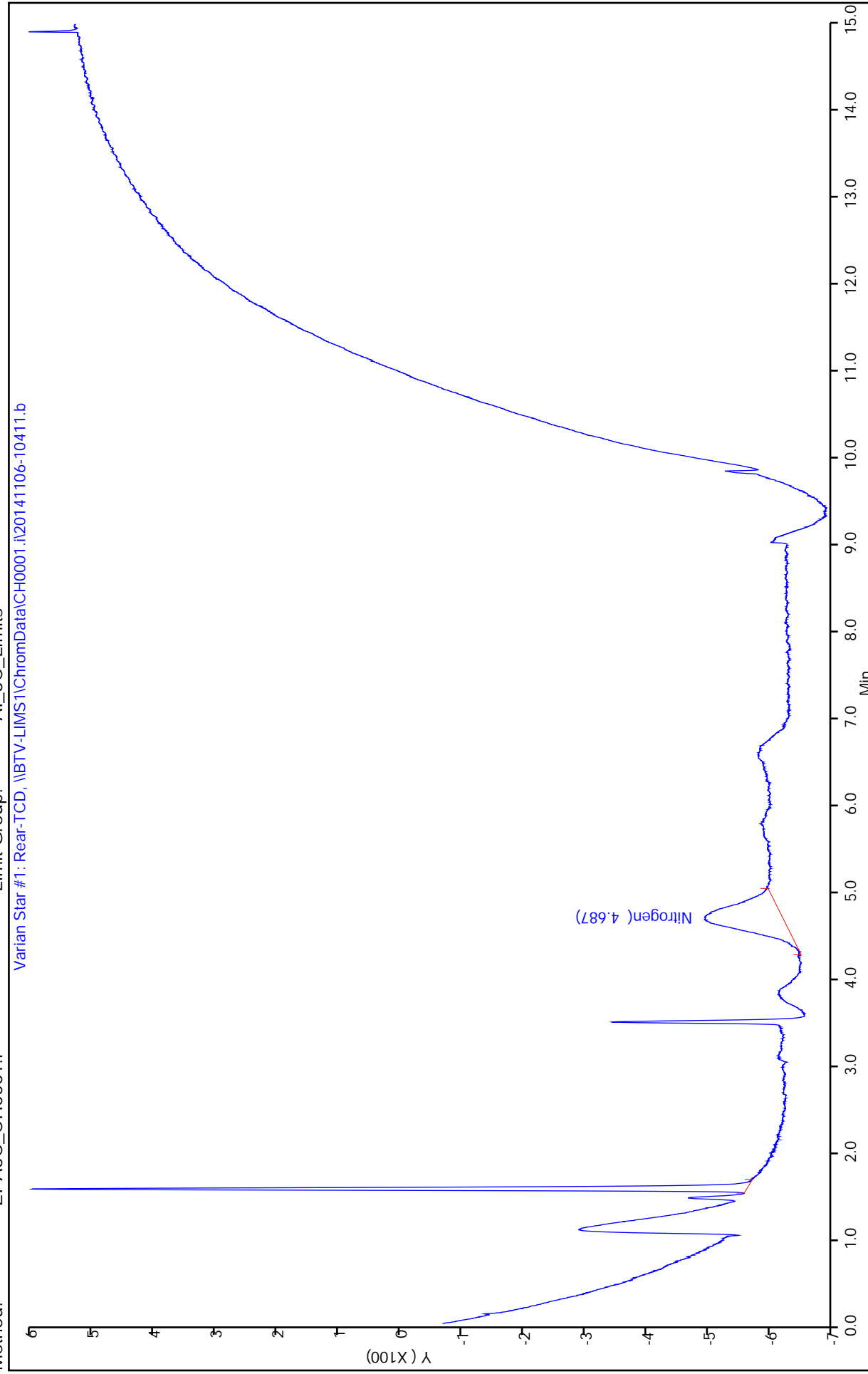
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-80106/2
 Matrix: Air Lab File ID: 3clcs110614001.d-avg
 Analysis Method: EPA 3C Date Collected: _____
 Sample wt/vol: 2(mL) Date Analyzed: 11/06/2014 11:44
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80106 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	3.51		0.040	0.040

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3clcs110614001.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Nov-2014 11:44:35 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3clcs110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 12:04:29 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.724	1.722	0.002	169435	5.00	5.07	
2 Oxygen	3.827	3.827	0.000	164906	5.00	4.75	
3 Nitrogen	4.714	4.710	0.004	181791	5.00	4.84	
4 Methane	6.532	6.533	-0.001	107888	4.00	3.55	
5 Carbon monoxide	7.026	7.018	0.008	189614	5.00	5.41	

Reagents:

AT3CLCSs_00001 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3clcs110614.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 06-Nov-2014 11:19:54 ALS Bottle#: 0 Worklist Smp#: 4
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3clcs110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 06-Nov-2014 12:04:29 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.718	1.722	-0.004	168247	5.00	5.04	
2 Oxygen	3.812	3.827	-0.015	163674	5.00	4.71	
3 Nitrogen	4.688	4.710	-0.022	180612	5.00	4.81	
4 Methane	6.503	6.533	-0.030	105257	4.00	3.47	
5 Carbon monoxide	6.975	7.018	-0.043	192309	5.00	5.48	

Reagents:

AT3CLCSs_00001 Amount Added: 2.00 Units: mL

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3clcs110614001-80047-ai_3c

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3clcs110614-80047-ai_3c_li

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	169435	168247	168841	0.7
Oxygen	164906	163674	164290	0.75
Nitrogen	181791	180612	181201.5	0.65
Methane	107888	105257	106572.5	2.47
Carbon monoxide	189614	192309	190961.5	1.41

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.07	5.04	5.05	0.7
Oxygen	4.75	4.71	4.73	0.75
Nitrogen	4.84	4.81	4.83	0.65
Methane	3.55	3.47	3.51	2.47
Carbon monoxide	5.41	5.48	5.44	1.41

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3clcs110614001.d

Injection Date: 06-Nov-2014 11:44:35

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: LCS

Worklist Smp#: 5

Client ID:

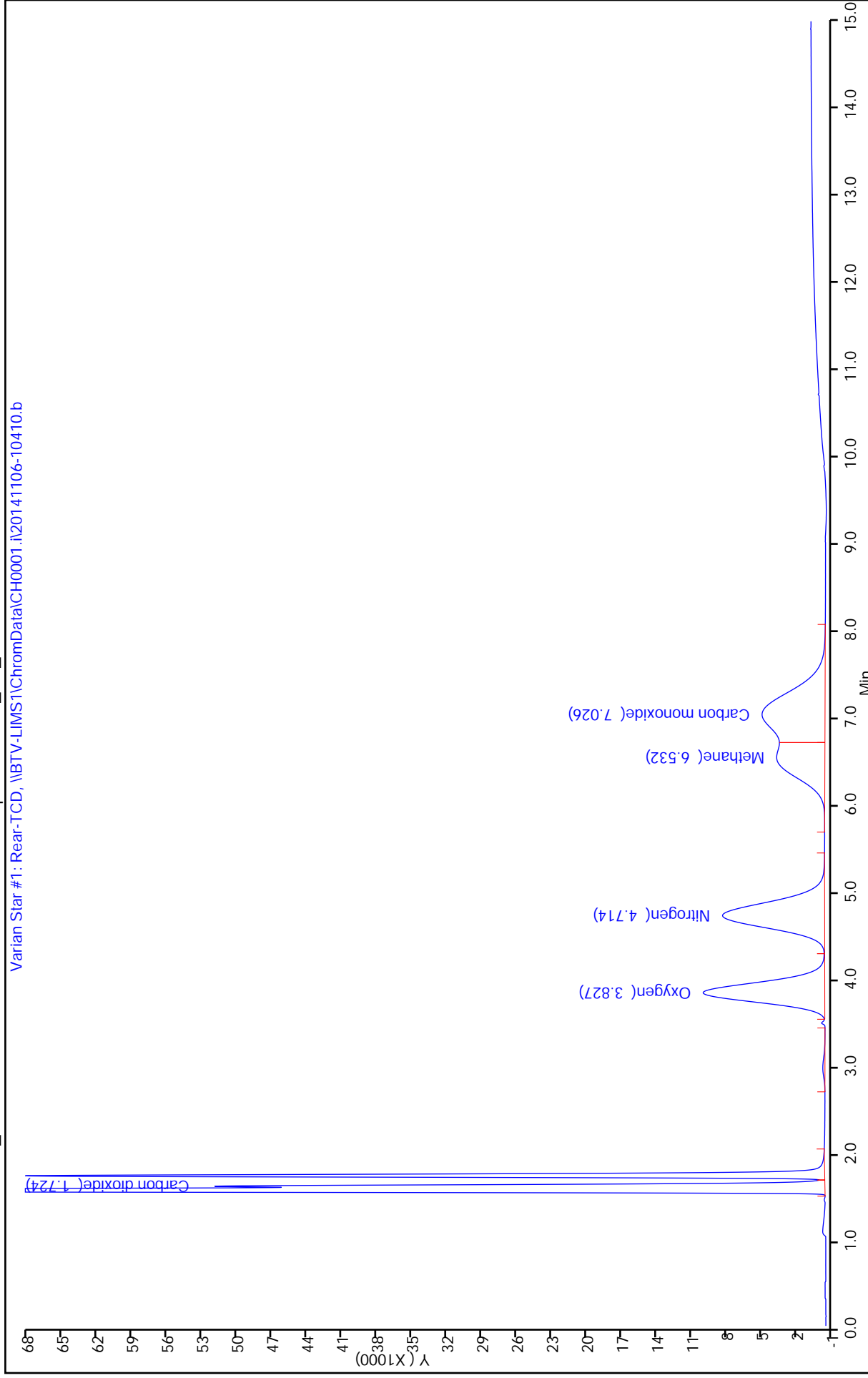
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 06-Nov-2014 12:04:30

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10410.b\3clcs110614.d

Injection Date: 06-Nov-2014 11:19:54

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: LCS

Worklist Smp#: 4

Client ID:

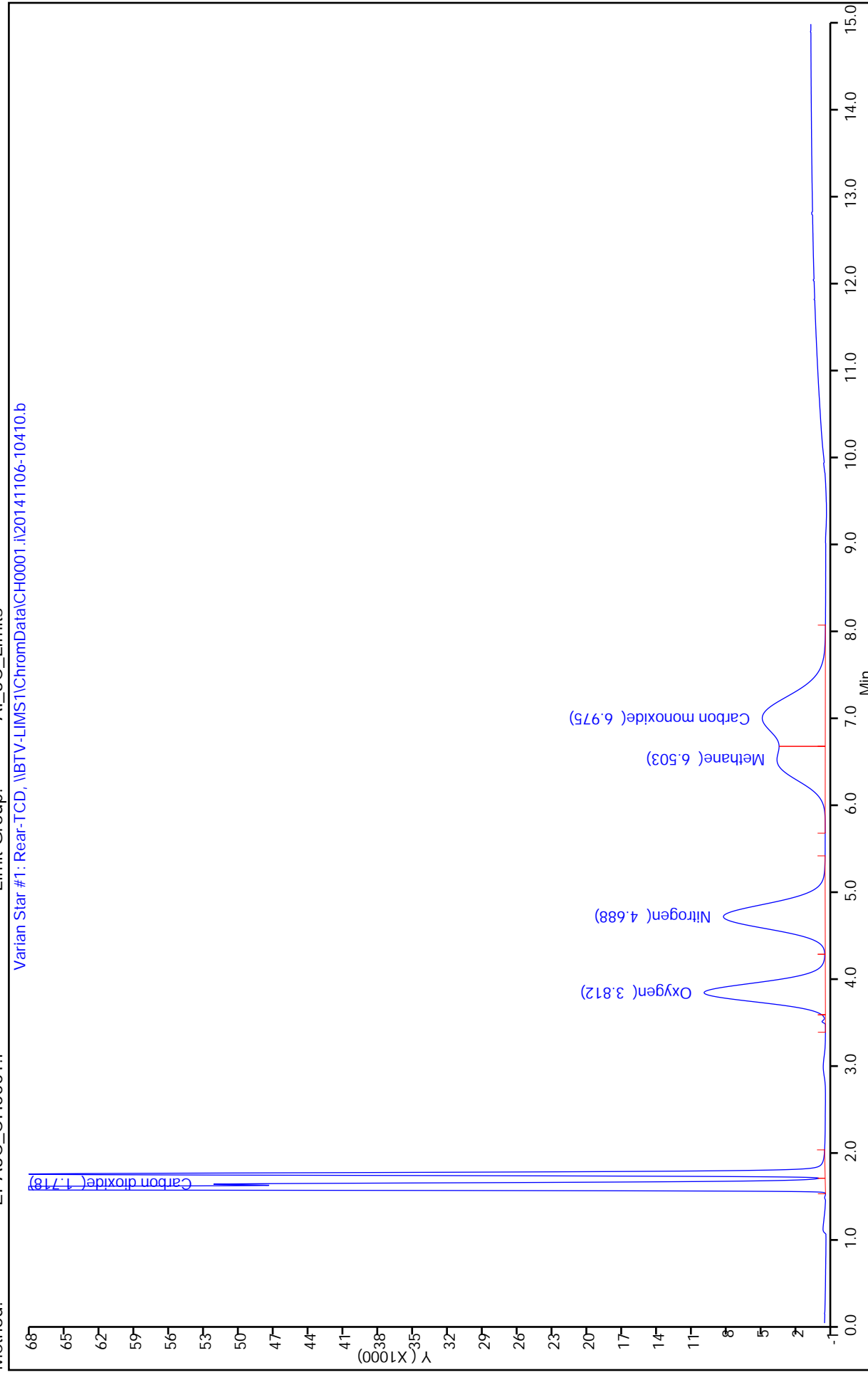
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



FORM I
AIR - GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-25225-1
 SDG No.: 200-25225-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-80131/2
 Matrix: Air Lab File ID: 3clcs110614002.d-avg
 Analysis Method: EPA 3C Date Collected: _____
 Sample wt/vol: 2(mL) Date Analyzed: 11/07/2014 09:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: CTR-1 ID: 3.175(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 80131 Units: % v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-82-8	Methane	3.51		0.040	0.040

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3clcs110614002.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 07-Nov-2014 09:55:19 ALS Bottle#: 0 Worklist Smp#: 4
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3clcs110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:24 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.725	1.724	0.001	168154	5.00	5.03	
2 Oxygen	3.830	3.825	0.005	163915	5.00	4.72	
3 Nitrogen	4.719	4.704	0.015	180586	5.00	4.81	
4 Methane	6.544	6.514	0.030	106315	4.00	3.50	
5 Carbon monoxide	7.036	7.002	0.034	190890	5.00	5.44	

Reagents:

AT3CLCSs_00001 Amount Added: 2.00 Units: mL

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3clcs110614003.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 07-Nov-2014 10:12:47 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 2.000 mL Dil. Factor: 1.0000
 Sample Info: 3clcs110614
 Operator ID: BPL Instrument ID: CH0001.i
 Method: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\EPA3C_CH0001.i.m
 Limit Group: AI_3C_Limits
 Last Update: 07-Nov-2014 11:12:24 Calib Date: 20-May-2014 10:45:29
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CH0001.i\20140519-7611.b\3cic09051914B.d
 Column 1 : Det: Varian Star #1: Rear-TCD
 Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt % v/v	OnCol Amt % v/v	Flags
1 Carbon dioxide	1.720	1.724	-0.004	166819	5.00	4.99	
2 Oxygen	3.815	3.825	-0.010	163218	5.00	4.70	
3 Nitrogen	4.697	4.704	-0.007	181256	5.00	4.83	
4 Methane	6.507	6.514	-0.007	106936	4.00	3.52	
5 Carbon monoxide	7.001	7.002	-0.001	190199	5.00	5.42	

Reagents:

AT3CLCSs_00001 Amount Added: 2.00 Units: mL

Processing 3C data for files:

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3clcs110614002-80105-ai_3c

\\corptalsapp05\200-bt-rawdata\organics\gc\ch0001-3hutch\3clcs110614003-80105-ai_3c

Raw Results - Fixed Gases

Analyte	Resp1	Resp2	Avg Resp	RPD
Carbon dioxide	168154	166819	167486.5	0.8
Oxygen	163915	163218	163566.5	0.43
Nitrogen	180586	181256	180921	0.37
Methane	106315	106936	106625.5	0.58
Carbon monoxide	190890	190199	190544.5	0.36

Analyte	Conc1	Conc2	Avg Conc	RPD
Carbon dioxide	5.03	4.99	5.01	0.8
Oxygen	4.72	4.7	4.71	0.43
Nitrogen	4.81	4.83	4.82	0.37
Methane	3.5	3.52	3.51	0.58
Carbon monoxide	5.44	5.42	5.43	0.36

----- NMOC Correction-----

NMOC correction not requested, NMOC correction not applied

Report Date: 07-Nov-2014 11:12:57

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3clcs110614002.d

Injection Date: 07-Nov-2014 09:55:19

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: LCS

Worklist Smp#: 4

Client ID:

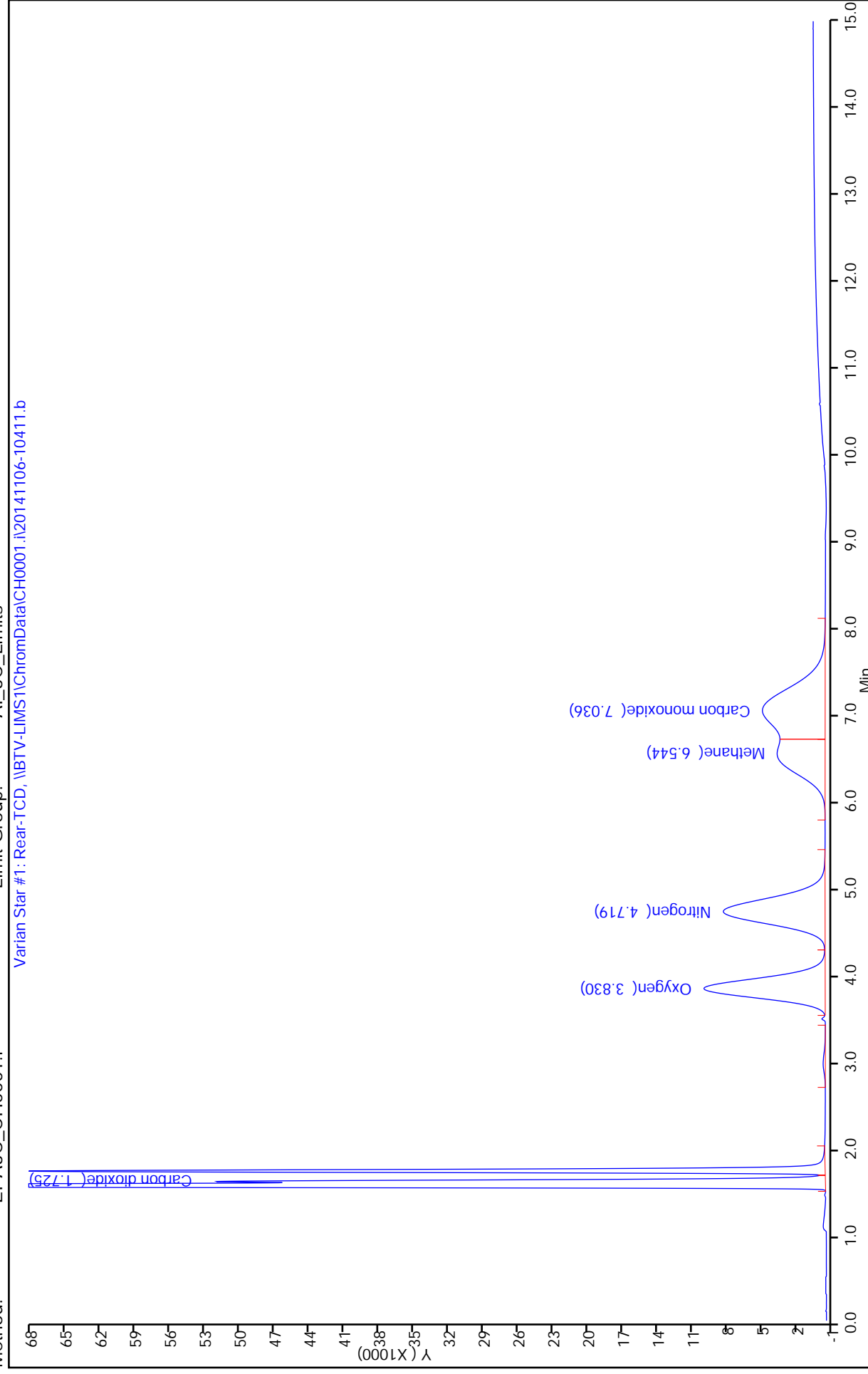
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Report Date: 07-Nov-2014 11:12:57

Chrom Revision: 2.2 07-Oct-2014 12:16:06

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b\3clcs110614003.d

Injection Date: 07-Nov-2014 10:12:47

Instrument ID: CH0001.i

Operator ID: BPL

Lims ID: LCS

Worklist Smp#: 5

Client ID:

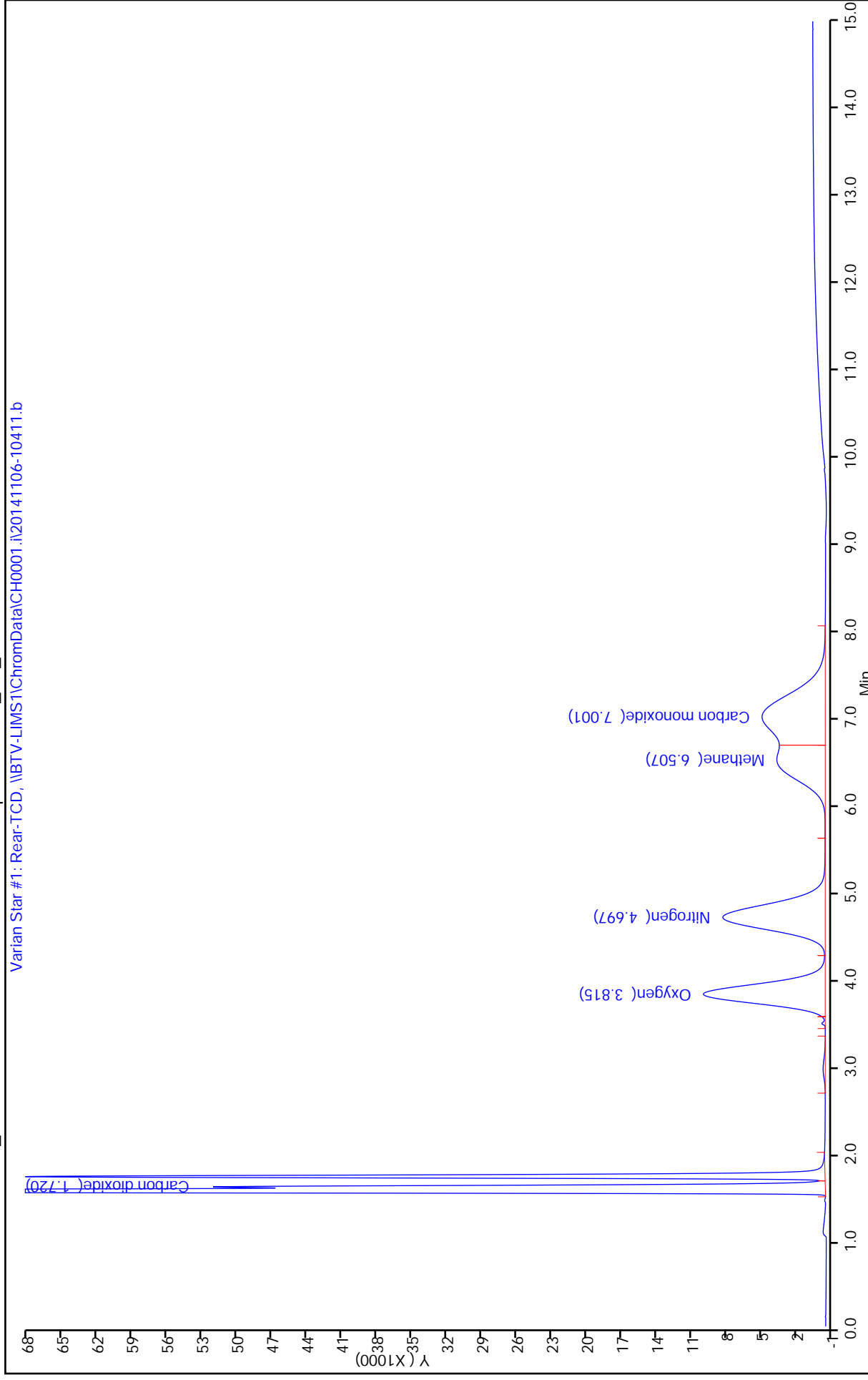
Purge Vol: 2.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: EPA3C_CH0001.i

Limit Group: AI_3C_Limits



Varian Star #1: Rear-TCD, \\BTV-LIMS1\ChromData\CH0001.i\20141106-10411.b

AIR - GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25225-1

SDG No.: 200-25225-1

Instrument ID: CH0001.i Start Date: 05/19/2014 11:18

Analysis Batch Number: 72381 End Date: 05/20/2014 11:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICIS 200-72381/1		05/19/2014 11:18	1	3cicis051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/2		05/19/2014 12:08	1	3cic6051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/3		05/19/2014 13:13	1	3cic8051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/4		05/19/2014 14:07	1	3cic1051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/5		05/19/2014 14:39	1	3cic2051914A.d-avg	CTR-1 3.175 (mm)
IC 200-72381/6		05/19/2014 15:42	1	3cic3051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/7		05/19/2014 16:30	1	3cic5051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/8		05/19/2014 17:18	1	3cic7051914B.d-avg	CTR-1 3.175 (mm)
IC 200-72381/9		05/19/2014 18:37	1	3cic10051914A.d-avg	CTR-1 3.175 (mm)
IC 200-72381/10		05/20/2014 10:29	1	3cic09051914A.d-avg	CTR-1 3.175 (mm)
ICV 200-72381/11		05/20/2014 11:01	1	3cicv051914C.d-avg	CTR-1 3.175 (mm)

AIR - GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25225-1

SDG No.: 200-25225-1

Instrument ID: CH0001.i Start Date: 11/06/2014 11:03

Analysis Batch Number: 80106 End Date: 11/07/2014 09:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 200-80106/1		11/06/2014 11:03	1	3ccv110614001.d-avg	CTR-1 3.175 (mm)
LCS 200-80106/2		11/06/2014 11:44	1	3clcs110614001.d-avg	CTR-1 3.175 (mm)
MB 200-80106/3		11/06/2014 12:23	1	mb110614001.d-avg	CTR-1 3.175 (mm)
200-25225-1	IA-M1	11/06/2014 14:45	1.41	200-25225-a-1@1.41001.d-avg	CTR-1 3.175 (mm)
200-25225-2	IA-M2	11/06/2014 15:32	1.46	200-25225-a-2@1.46001.d-avg	CTR-1 3.175 (mm)
200-25225-3	IA-M3	11/06/2014 16:20	1.45	200-25225-a-3@1.45001.d-avg	CTR-1 3.175 (mm)
200-25225-4	IA-M4	11/06/2014 17:07	1.49	200-25225-a-4@1.49001.d-avg	CTR-1 3.175 (mm)
200-25225-5	IA-M4 FD	11/06/2014 17:55	1.36	200-25225-a-5@1.36001.d-avg	CTR-1 3.175 (mm)
200-25225-6	IA-M5	11/07/2014 08:42	1.43	200-25225-a-6@1.43001.d-avg	CTR-1 3.175 (mm)
CCVC 200-80106/10		11/07/2014 09:33	1	3ccvc110614001.d-avg	CTR-1 3.175 (mm)

AIR - GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25225-1

SDG No.: 200-25225-1

Instrument ID: CH0001.i Start Date: 11/07/2014 09:16

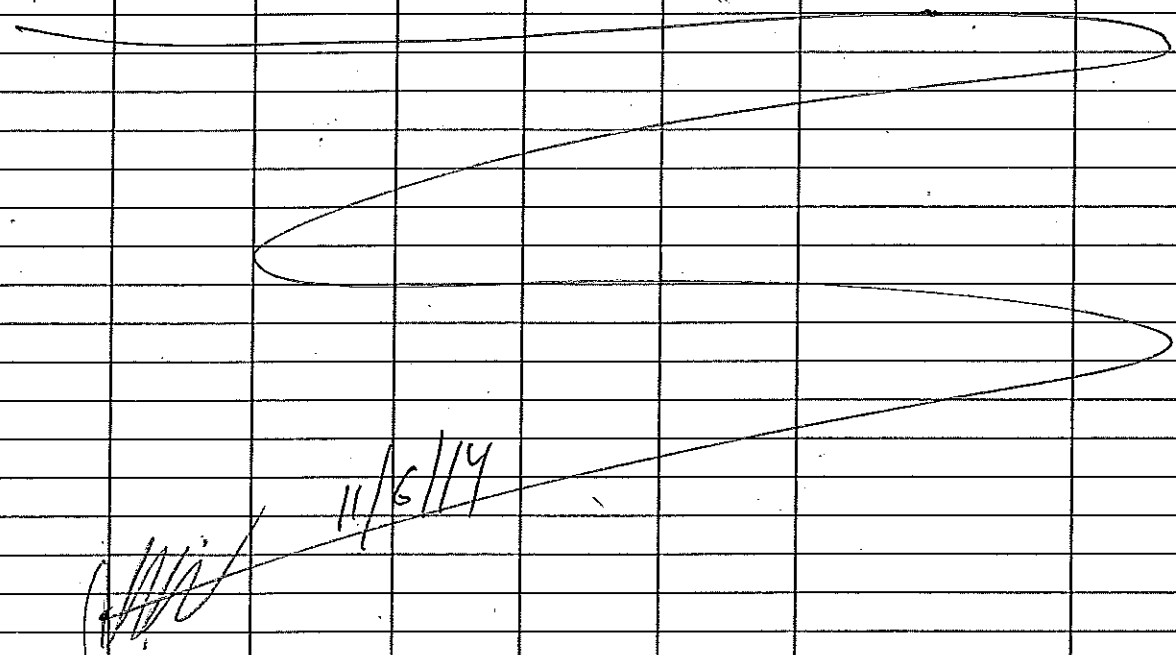
Analysis Batch Number: 80131 End Date: 11/07/2014 13:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 200-80131/1		11/07/2014 09:16	1	3cccv110714a.d-avg	CTR-1 3.175 (mm)
LCS 200-80131/2		11/07/2014 09:55	1	3clcs110614002.d-avg	CTR-1 3.175 (mm)
MB 200-80131/3		11/07/2014 10:38	1	mb110614003.d-avg	CTR-1 3.175 (mm)
200-25225-7	IA-M6	11/07/2014 11:30	1.48	200-25225-a-7@1.48001.d-avg	CTR-1 3.175 (mm)
200-25225-8	IA-M7	11/07/2014 12:02	1.38	200-25225-a-8@1.38001.d-avg	CTR-1 3.175 (mm)
200-25225-9	IA-M8	11/07/2014 12:34	1.41	200-25225-a-9@1.41001.d-avg	CTR-1 3.175 (mm)
CCVC 200-80131/7		11/07/2014 13:10	1	3cccv110714001.d-avg	CTR-1 3.175 (mm)

Post-Sampling Air Canister Pressure Check Record

Client ID	TALS Job	Date	Time (Military)	Lab BP ("Hg)	Lab Temp (°C)	Pressure Gauge ID	Analyst
Golda	25225	11/6/14	1052	29.4	22	68	WIKO

Sampling Information and Return Equipment Check	Yes	No	Comments
(1) Is a Field Test Data Sheet (FTDS) or similar sampling documentation present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(2) Is the flow controller ID used for each canister recorded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grab
(3) MA MCP: Check return flow rate for flow controllers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
(4) Is visible sign of damage to canister and/or flow controller (FC) present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If damage observed, list equipment IDs and describe condition:			

Post-Sampling Return Pressure Check							
Lab ID	Canister ID	Pressure ¹ ("Hg)	Anomaly ² (Y/N)	FC ID ³	FC Return (Y/N)	Can Cert Batch ID	Comments
1	5129	-1.5	N	NA	NA	4918 10085	
2	5084	-2.3				3380 10232	
3	3265	-2.0				3508 10265	
4	5080	-1.9				2708 9441	
5	2928	0.0				3508 10265	
6	3820	-1.3				5685 10265	
7	3419	-1.3				L	
8	5639	-1.4				3508 10265	
9	4118	-1.3				L	
							

¹ Criteria: Return Pressure should be between -1 and -10 ("Hg)
² If return pressure is not within criteria, initiate anomaly report.
³ Record the ID of the FC used for sampling if information is provided, otherwise leave blank.

Internal Use Only: Flow Controller Date and Page # _____



200-24163-A-10

2708

Location: Air-Storage

Bottle: Summa Canister 6L

Sampled: 9/12/2014 12:00 AM 200-700134

Loc: 200

24163

#10

A

Pre-Shipment Clean Canister Certification Report

Certification Type: Batch Individual

Canister Cleaning & Pre-Shipment Leak Test												
System ID		# Cycles		Cleaning Date		Technician		Canister Size				
Open 12		25		9/12/14		ms		6L			1L	3L
Leak Test												
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Initial Reading		Final Reading		Signature	Date	
						Gauge ID:	Date:	Gauge ID:	Date:			
1	4310	30.0	-30.0	-79.4	-0.6	69	9/13/14	69	9/17/14			
2	4554		-30.0		+0.6		1030		1300			
3	5126		-29.9		-0.5		ms		ms			
4	4796		-29.8		-0.4		30.0 ("Hg)		29.8 ("Hg)			
5	2844		30.1		-0.7		21 (°C)		22 (°C)			
6	274		-30.1		-0.7	³ Acceptance Criteria: (1) The difference must be less than or equal to + 0.5 (2) Pressure readings must be at least 24 hours apart. If time frame was not met, the PM must authorize shipment of canister: PM Authorization:						
7	4830		-30.2		-0.9							
8	2612		-29.5		+0.6							
9	3510		-29.4		0							
10	2708	29.6	29.9		-0.5							
11	5080		30.1		-0.7							
12	5675		-29.6		-0.2							

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.
² To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.
³ To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

Clean Canister Certification Analysis & Authorization of Release to Inventory											
Test Method: <input type="checkbox"/> TO15 Routine <input type="checkbox"/> TO15 LL <input type="checkbox"/> NJDEP-LL TO15				Inventory Level				Secondary Review			
Can ID	Date	Sequence	Analyst	1	2	3	4	Limited	Review Date	Reviewer	
2708	9/15/14	9441	WAD		✓				9/16/14	AW	

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLs listed in laboratory SOP for LLTO15.
 Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.
 Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.
 Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLs listed in laboratory SOP NJDEP-LLTO15.
 Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments: _____



200-24861-A-7
4918

Loc: 200
24861
#7
A

Pre-Shipment Clean Canister Certification Report

Bottle: Summa Canister 6L
Sampled: 10/17/2014 12:00 AM 200-718039

Certification Type: Batch Individual

Canister Cleaning & Pre-Shipment Leak Test												
System ID		# Cycles		Cleaning Date		Technician		Canister Size				
Myer		25		10/17/14		LWJ		6L			1L	3L
Leak Test												
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Initial Reading		Final Reading				
						Gauge ID:	Date:	Gauge ID:	Date:			
1	4779	↑ -28.8	-29.7	-0.1	69	10/19/14	69	10/23/14				
2	5904	↑ -30.0	-29.8	-0.3	69	1000	69	1430				
3	4355	↑ -29.8	-29.7	-0.1	69	1000	69	1430				
4	4322	↑ -29.2	-29.7	+0.5	69	1000	69	1430				
5	2538	↑ -29.9	-29.8	+0.3	69	1000	69	1430				
6	5434	-30.0	-29.8	-0.1	69	1000	69	1430				
7	4918	-30.0	-29.7	0	69	1000	69	1430				
8	3277	-30.0	-29.8	-0.1	69	1000	69	1430				
9	5108	-30.0	-29.8	-0.1	69	1000	69	1430				
10	5129	-30.0	-29.8	-0.1	69	1000	69	1430				
11	3210	-30.0	-29.3	+0.4	69	1000	69	1430				
12	5902	-30.0	-29.9	-0.2	69	1000	69	1430				

Gauge ID: 69
 Date: 10/19/14
 Time: 1000
 Tech: LWJ
 BP: 29.7 ("Hg)
 Temp: 22 (C)
 Gauge ID: 69
 Date: 10/23/14
 Time: 1430
 Tech: MC
 BP: 29.4 ("Hg)
 Temp: 21 (C)

³ Acceptance Criteria:
 (1) The difference must be less than or equal to + 0.5
 (2) Pressure readings must be at least 24 hours apart.
 If time frame was not met, the PM must authorize shipment of canister.
 PM Authorization:
 Signature: _____ Date: _____

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.
² To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.
³ To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

Clean Canister Certification Analysis & Authorization of Release to Inventory										
Test Method: <input checked="" type="checkbox"/> TO15 Routine <input type="checkbox"/> TO15 LL <input type="checkbox"/> NJDEP-LL TO15				Inventory Level					Secondary Review	
Can ID	Date	Sequence	Analyst	1	2	3	4	Limited	Review Date	Reviewer
4918	10/21/14	10085	BL		✓				10/22/14	AWI

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLS listed in laboratory SOP for LLTO15.
 Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.
 Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.
 Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLS listed in laboratory SOP NJDEP-LLTO15.
 Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments:



200-24999-A-5
 3380
 Location: Air-Storage
 Bottle: Summa Canister 6L
 Sampled: 10/25/2014 12:00 AM 200-722211

Loc: 200
24999
#5
A

Pre-Shipment Clean Canister Certification

Certification Type: Batch Individual

Canister Cleaning & Pre-Shipment Leak Test										
System ID		# Cycles		Cleaning Date		Technician		Canister Size		
Open 3/4		30		10/25/14		ms		6L 1L 3L		
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Leak Test				
						Initial Reading		Final Reading		
1	5701	-29.5	-29.5	-29.5	0	Gauge ID: 69	Gauge ID: 69			
2	5709	-29.5	-29.5	-29.5	0	Date: 10/26/14	Date: 10/26/14			
3	3526	-29.5	-29.5	-29.5	0	Time: 1320	Time: 1500			
4	5584	-29.7	-29.7	-29.7	0.2	Tech: SML	Tech: ms			
5	3380	-29.3	-29.9	-29.9	-0.6	BP: 29.0 ("Hg)	BP: 29.2 ("Hg)			
6	5730	-29.5	-29.5	-29.5	0	Temp 21 (C)	Temp: 21 (C)			
7	4778	-29.2	-29.2	-29.2	+0.3	³ Acceptance Criteria: (1) The difference must be less than or equal to + 0.5 (2) Pressure readings must be at least 24 hours apart. If time frame was not met, the PM must authorize shipment of canister: PM Authorization:				
8	7785	-29.9	-29.9	-29.9	-0.4					
9	5901	-29.6	-29.6	-29.6	-0.1					
10	4384	-29.9	-29.9	-29.9	-0.4					
11	4072	-29.7	-29.7	-29.7	-0.2	Signature				
12	5731	-29.9	-29.9	-29.9	-0.1	Date				

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

² To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.

³ To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

Clean Canister Certification Analysis & Authorization of Release to Inventory										
Test Method: <input type="checkbox"/> TO15 Routine <input type="checkbox"/> TO15 LL <input type="checkbox"/> NJDEP-LL TO15				Inventory Level				Secondary Review		
Can ID	Date	Sequence	Analyst	1	2	3	4	Limited	Review Date	Reviewer
3380	10/28/14	10232	WHO		<input checked="" type="checkbox"/>				10/29/14	AW

- Inventory Level 1: Individual Canister Certification Only. Certified clean to RLS listed in laboratory SOP for LLTO15.
- Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.
- Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.
- Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLS listed in laboratory SOP NJDEP-LLTO15.
- Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments: _____



200-25063-A-12

6685

Location: Air-Storage

Bottle: Summa Canister 6L

Sampled: 10/29/2014 12:00 AM 200-724194

Loc: 200

25063

#12

A

Pre-Shipment Clean Canister Certification Report

Certification Type: Batch Individual

Canister Cleaning & Pre-Shipment Leak Test											
System ID		# Cycles		Cleaning Date		Technician		Canister Size			
Over 112		25		10/29/14		MS		6L	1L	3L	
Leak Test											
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Initial Reading		Final Reading			
						Gauge ID:	Date:	Gauge ID:	Date:	Tech:	Temp:
1	3203	-29.7	-29.9	-29.7	-0.2	69	10/29/14	69	11/3/14	MS	21
2	2934	-29.9	-29.9		-0.2	900			12:00		
3	5729	-29.8	-29.8		-0.1	MS		MS			
4	4341	-29.4	-29.4		+0.3	293		29.4			
5	5609	-30.0	-30.0		-0.3	21		22			
6	5522	-29.8	-29.8		-0.1	³ Acceptance Criteria: (1) The difference must be less than or equal to + 0.5 (2) Pressure readings must be at least 24 hours apart. If time frame was not met, the PM must authorize shipment of canister: PM Authorization:					
7	2849	-30.0	-30.0		+0.3						
8	3475	-29.8	-29.8		-0.1						
9	3543	-29.8	-29.8		-0.1						
10	3820	-29.9	-29.9		-0.2						
11	3419	-29.7	-29.7		0						
12	5685-29.6										
Signature										Date	

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

² To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.

³ To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

Clean Canister Certification Analysis & Authorization of Release to Inventory										
Test Method: <input type="checkbox"/> TO15 Routine <input type="checkbox"/> TO15 LL <input type="checkbox"/> NJDEP-LL TO15				Inventory Level				Secondary Review		
Can ID	Date	Sequence	Analyst	1	2	3	4	Limited	Review Date	Reviewer
5685	10/30/14	10265	WNO		✓				10/31/14	AWI

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLs listed in laboratory SOP for LLTO15.

Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.

Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.

Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLs listed in laboratory SOP NJDEP-LLTO15.

Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments: Reg time



Loc: 200
25068
#9
A

Pre-Shipment Clean Canister Certification Repc

200-25068-A-9
 3508
 Location: Air-Storage
 Bottle: Summa Canister 6L
 Sampled: 10/29/2014 12:00 AM 200-724389

Certification Type: Batch Individual

Canister Cleaning & Pre-Shipment Leak Test											
System ID		# Cycles	Cleaning Date	Technician		Canister Size					
100		15	10/29/14	ms		6L		1L	3L		
Leak Test											
Port	Can ID	Initial ¹	Final	Adjusted Initial ²	Difference ³	Initial Reading		Final Reading			
		("Hg)	("Hg)	("Hg)		Gauge ID: 69	Date: 10/30/14	Gauge ID: 69	Date: 11/3/14		
1	5639	30.0	29.7	-0.3							
2	2847	29.5		+0.5							
3	3525	29.8		-0.1							
4	4118	29.8		-0.1							
5	4916	29.7		0							
6	3265	29.8		-0.1							
7	2975	29.8		-0.1							
8	4928	29.8		-0.1							
9	3508	29.6	29.3	+0.4							
10	5114	29.7		0							
11	2159	29.7		0							
12	4283	29.8		-0.1							

BP: 29.3 ("Hg) BP: 29.4 ("Hg)
 Temp: 21 (°C) Temp: 22 (°C)
³Acceptance Criteria:
 (1) The difference must be less than or equal to + 0.5
 (2) Pressure readings must be at least 24 hours apart.
 If time frame was not met, the PM must authorize shipment of canister:
 PM Authorization:
 Signature _____ Date _____

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.
² To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.
³ To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

Clean Canister Certification Analysis & Authorization of Release to Inventory											
Test Method: <input type="checkbox"/> TO15 Routine <input type="checkbox"/> TO15 LL <input type="checkbox"/> NJDEP-LL TO15				Inventory Level				Secondary Review			
Can ID	Date	Sequence	Analyst	1	2	3	4	Limited	Review Date	Reviewer	
3508	10/30/14	10265	WHD		<input checked="" type="checkbox"/>				10/31/14	AWJ	

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLs listed in laboratory SOP for LLTO15.
 Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.
 Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.
 Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLs listed in laboratory SOP NJDEP-LLTO15.
 Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments: Routine

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 9441_004.D
 Lab ID: LCS 200-77217/4 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Propylene	10.0	9.07	91	70-130	
Dichlorodifluoromethane	10.0	10.9	109	70-130	
Freon 22	10.0	9.85	99	70-130	
1,2-Dichlorotetrafluoroethane	10.0	11.4	114	70-130	
Chloromethane	10.0	8.68	87	70-130	
n-Butane	10.0	9.00	90	70-130	
Vinyl chloride	10.0	9.13	91	70-130	
1,3-Butadiene	10.0	9.14	91	70-130	
Bromomethane	10.0	9.15	91	70-130	
Chloroethane	10.0	8.36	84	70-130	
Bromoethene (Vinyl Bromide)	10.0	9.55	95	70-130	
Trichlorofluoromethane	10.0	10.4	104	70-130	
Ethanol	15.0	17.9	119	70-130	
Freon TF	10.0	9.80	98	70-130	
1,1-Dichloroethene	10.0	9.08	91	70-130	
Acetone	10.0	10.8	108	70-130	
Isopropyl alcohol	10.0	7.71	77	70-130	
Carbon disulfide	10.0	9.90	99	70-130	
3-Chloropropene	10.0	8.40	84	70-130	
Methylene Chloride	10.0	8.99	90	70-130	
tert-Butyl alcohol	10.0	8.15	81	70-130	
Methyl tert-butyl ether	10.0	9.70	97	70-130	
trans-1,2-Dichloroethene	10.0	9.53	95	70-130	
n-Hexane	10.0	9.68	97	70-130	
1,1-Dichloroethane	10.0	9.22	92	70-130	
Vinyl acetate	10.0	7.47	75	70-130	
Ethyl acetate	10.0	9.47	95	70-130	
Methyl Ethyl Ketone	10.0	8.85	89	70-130	
cis-1,2-Dichloroethene	10.0	8.98	90	70-130	
Chloroform	10.0	9.49	95	70-130	
Tetrahydrofuran	10.0	8.30	83	70-130	
1,1,1-Trichloroethane	10.0	10.3	103	70-130	
Cyclohexane	10.0	9.32	93	70-130	
Carbon tetrachloride	10.0	10.6	106	70-130	
2,2,4-Trimethylpentane	10.0	8.64	86	70-130	
Benzene	10.0	9.02	90	70-130	
1,2-Dichloroethane	10.0	9.36	94	70-130	
n-Heptane	10.0	8.25	82	70-130	
Trichloroethene	10.0	9.58	96	70-130	
Methyl methacrylate	10.0	8.28	83	70-130	
1,2-Dichloropropane	10.0	7.97	80	70-130	
1,4-Dioxane	10.0	8.00	80	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 9441_004.D
 Lab ID: LCS 200-77217/4 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	9.24	92	70-130	
cis-1,3-Dichloropropene	10.0	8.93	89	70-130	
methyl isobutyl ketone	10.0	7.87	79	70-130	
Toluene	10.0	9.40	94	70-130	
trans-1,3-Dichloropropene	10.0	9.22	92	70-130	
1,1,2-Trichloroethane	10.0	9.03	90	70-130	
Tetrachloroethene	10.0	9.95	100	70-130	
Methyl Butyl Ketone (2-Hexanone)	10.0	8.38	84	70-130	
Dibromochloromethane	10.0	9.63	96	70-130	
1,2-Dibromoethane	10.0	9.53	95	70-130	
Chlorobenzene	10.0	9.50	95	70-130	
Ethylbenzene	10.0	9.78	98	70-130	
m,p-Xylene	20.0	19.0	95	70-130	
Xylene, o-	10.0	9.45	95	70-130	
Styrene	10.0	9.23	92	70-130	
Bromoform	10.0	10.1	101	70-130	
Cumene	10.0	9.80	98	70-130	
1,1,2,2-Tetrachloroethane	10.0	8.92	89	70-130	
n-Propylbenzene	10.0	9.67	97	70-130	
4-Ethyltoluene	10.0	10.1	101	70-130	
1,3,5-Trimethylbenzene	10.0	9.83	98	70-130	
2-Chlorotoluene	10.0	9.77	98	70-130	
tert-Butylbenzene	10.0	9.80	98	70-130	
1,2,4-Trimethylbenzene	10.0	9.86	99	70-130	
sec-Butylbenzene	10.0	9.76	98	70-130	
4-Isopropyltoluene	10.0	9.89	99	70-130	
1,3-Dichlorobenzene	10.0	9.46	95	70-130	
1,4-Dichlorobenzene	10.0	9.40	94	70-130	
Benzyl chloride	10.0	10.7	107	70-130	
n-Butylbenzene	10.0	9.63	96	70-130	
1,2-Dichlorobenzene	10.0	9.42	94	70-130	
1,2,4-Trichlorobenzene	10.0	9.93	99	70-130	
Hexachlorobutadiene	10.0	11.2	112	70-130	
Naphthalene	10.0	9.50	95	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10085_03.D
 Lab ID: LCS 200-78929/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Propylene	10.0	11.4	114	70-130	
Dichlorodifluoromethane	10.0	10.4	104	70-130	
Freon 22	10.0	11.4	114	70-130	
1,2-Dichlorotetrafluoroethane	10.0	12.0	120	70-130	
Chloromethane	10.0	11.5	115	70-130	
n-Butane	10.0	11.9	119	70-130	
Vinyl chloride	10.0	10.8	108	70-130	
1,3-Butadiene	10.0	11.6	116	70-130	
Bromomethane	10.0	11.1	111	70-130	
Chloroethane	10.0	11.7	117	70-130	
Bromoethene (Vinyl Bromide)	10.0	10.8	108	70-130	
Trichlorofluoromethane	10.0	10.6	106	70-130	
Ethanol	15.0	22.4	149	70-130	*
Freon TF	10.0	10.9	109	70-130	
1,1-Dichloroethene	10.0	10.6	106	70-130	
Acetone	10.0	11.6	116	70-130	
Isopropyl alcohol	10.0	12.7	127	70-130	
Carbon disulfide	10.0	12.9	129	70-130	
3-Chloropropene	10.0	12.1	121	70-130	
Methylene Chloride	10.0	11.8	118	70-130	
tert-Butyl alcohol	10.0	12.6	126	70-130	
Methyl tert-butyl ether	10.0	12.6	126	70-130	
trans-1,2-Dichloroethene	10.0	12.5	125	70-130	
n-Hexane	10.0	12.8	128	70-130	
1,1-Dichloroethane	10.0	11.7	117	70-130	
Vinyl acetate	10.0	12.7	127	70-130	
Ethyl acetate	10.0	12.4	124	70-130	
Methyl Ethyl Ketone	10.0	10.9	109	70-130	
cis-1,2-Dichloroethene	10.0	10.9	109	70-130	
Chloroform	10.0	11.5	115	70-130	
Tetrahydrofuran	10.0	12.8	128	70-130	
1,1,1-Trichloroethane	10.0	10.3	103	70-130	
Cyclohexane	10.0	11.1	111	70-130	
Carbon tetrachloride	10.0	10.4	104	70-130	
2,2,4-Trimethylpentane	10.0	11.5	115	70-130	
Benzene	10.0	10.8	108	70-130	
1,2-Dichloroethane	10.0	11.4	114	70-130	
n-Heptane	10.0	11.5	115	70-130	
Trichloroethene	10.0	11.1	111	70-130	
Methyl methacrylate	10.0	12.5	125	70-130	
1,2-Dichloropropane	10.0	11.5	115	70-130	
1,4-Dioxane	10.0	12.8	128	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10085_03.D
 Lab ID: LCS 200-78929/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	11.2	112	70-130	
cis-1,3-Dichloropropene	10.0	11.8	118	70-130	
methyl isobutyl ketone	10.0	12.2	122	70-130	
Toluene	10.0	11.2	112	70-130	
trans-1,3-Dichloropropene	10.0	11.9	119	70-130	
1,1,2-Trichloroethane	10.0	11.2	112	70-130	
Tetrachloroethene	10.0	10.8	108	70-130	
Methyl Butyl Ketone (2-Hexanone)	10.0	11.7	117	70-130	
Dibromochloromethane	10.0	11.0	110	70-130	
1,2-Dibromoethane	10.0	11.4	114	70-130	
Chlorobenzene	10.0	11.1	111	70-130	
Ethylbenzene	10.0	11.1	111	70-130	
m,p-Xylene	20.0	22.1	111	70-130	
Xylene, o-	10.0	11.3	113	70-130	
Styrene	10.0	11.6	116	70-130	
Bromoform	10.0	11.2	112	70-130	
Cumene	10.0	11.2	112	70-130	
1,1,2,2-Tetrachloroethane	10.0	11.2	112	70-130	
n-Propylbenzene	10.0	11.1	111	70-130	
4-Ethyltoluene	10.0	11.5	115	70-130	
1,3,5-Trimethylbenzene	10.0	11.3	113	70-130	
2-Chlorotoluene	10.0	10.9	109	70-130	
tert-Butylbenzene	10.0	11.4	114	70-130	
1,2,4-Trimethylbenzene	10.0	11.3	113	70-130	
sec-Butylbenzene	10.0	11.4	114	70-130	
4-Isopropyltoluene	10.0	11.6	116	70-130	
1,3-Dichlorobenzene	10.0	10.6	106	70-130	
1,4-Dichlorobenzene	10.0	10.8	108	70-130	
Benzyl chloride	10.0	11.4	114	70-130	
n-Butylbenzene	10.0	11.5	115	70-130	
1,2-Dichlorobenzene	10.0	10.9	109	70-130	
1,2,4-Trichlorobenzene	10.0	10.8	108	70-130	
Hexachlorobutadiene	10.0	10.4	104	70-130	
Naphthalene	10.0	10.3	103	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10232_04.D
 Lab ID: LCS 200-79449/4 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Propylene	10.0	10.0	100	70-130	
Dichlorodifluoromethane	10.0	8.52	85	70-130	
Freon 22	10.0	9.91	99	70-130	
1,2-Dichlorotetrafluoroethane	10.0	10.3	103	70-130	
Chloromethane	10.0	10.3	103	70-130	
n-Butane	10.0	11.0	110	70-130	
Vinyl chloride	10.0	9.82	98	70-130	
1,3-Butadiene	10.0	10.8	108	70-130	
Bromomethane	10.0	9.42	94	70-130	
Chloroethane	10.0	10.5	105	70-130	
Bromoethene (Vinyl Bromide)	10.0	9.30	93	70-130	
Trichlorofluoromethane	10.0	9.06	91	70-130	
Ethanol	15.0	21.0	140	70-130	*
Freon TF	10.0	9.51	95	70-130	
1,1-Dichloroethene	10.0	9.29	93	70-130	
Acetone	10.0	10.1	101	70-130	
Isopropyl alcohol	10.0	11.5	115	70-130	
Carbon disulfide	10.0	11.8	118	70-130	
3-Chloropropene	10.0	11.8	118	70-130	
Methylene Chloride	10.0	11.2	112	70-130	
tert-Butyl alcohol	10.0	11.1	111	70-130	
Methyl tert-butyl ether	10.0	10.4	104	70-130	
trans-1,2-Dichloroethene	10.0	11.7	117	70-130	
n-Hexane	10.0	12.1	121	70-130	
1,1-Dichloroethane	10.0	10.8	108	70-130	
Vinyl acetate	10.0	11.0	110	70-130	
Ethyl acetate	10.0	10.9	109	70-130	
Methyl Ethyl Ketone	10.0	9.53	95	70-130	
cis-1,2-Dichloroethene	10.0	10.2	102	70-130	
Chloroform	10.0	10.7	107	70-130	
Tetrahydrofuran	10.0	11.9	119	70-130	
1,1,1-Trichloroethane	10.0	10.2	102	70-130	
Cyclohexane	10.0	11.1	111	70-130	
Carbon tetrachloride	10.0	10.1	101	70-130	
2,2,4-Trimethylpentane	10.0	12.1	121	70-130	
Benzene	10.0	10.8	108	70-130	
1,2-Dichloroethane	10.0	11.3	113	70-130	
n-Heptane	10.0	12.5	125	70-130	
Trichloroethene	10.0	11.4	114	70-130	
Methyl methacrylate	10.0	12.3	124	70-130	
1,2-Dichloropropane	10.0	12.0	120	70-130	
1,4-Dioxane	10.0	13.3	134	70-130	*

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10232_04.D
 Lab ID: LCS 200-79449/4 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	11.7	117	70-130	
cis-1,3-Dichloropropene	10.0	12.6	127	70-130	
methyl isobutyl ketone	10.0	13.6	136	70-130	*
Toluene	10.0	10.4	104	70-130	
trans-1,3-Dichloropropene	10.0	12.2	122	70-130	
1,1,2-Trichloroethane	10.0	10.5	106	70-130	
Tetrachloroethene	10.0	9.55	96	70-130	
Methyl Butyl Ketone (2-Hexanone)	10.0	11.7	117	70-130	
Dibromochloromethane	10.0	9.75	98	70-130	
1,2-Dibromoethane	10.0	10.3	103	70-130	
Chlorobenzene	10.0	9.95	99	70-130	
Ethylbenzene	10.0	9.89	99	70-130	
m,p-Xylene	20.0	19.6	98	70-130	
Xylene, o-	10.0	9.91	99	70-130	
Styrene	10.0	10.1	101	70-130	
Bromoform	10.0	9.34	93	70-130	
Cumene	10.0	9.72	97	70-130	
1,1,2,2-Tetrachloroethane	10.0	10.3	104	70-130	
n-Propylbenzene	10.0	9.74	97	70-130	
4-Ethyltoluene	10.0	9.72	97	70-130	
1,3,5-Trimethylbenzene	10.0	9.57	96	70-130	
2-Chlorotoluene	10.0	9.47	95	70-130	
tert-Butylbenzene	10.0	9.55	95	70-130	
1,2,4-Trimethylbenzene	10.0	9.48	95	70-130	
sec-Butylbenzene	10.0	9.68	97	70-130	
4-Isopropyltoluene	10.0	9.58	96	70-130	
1,3-Dichlorobenzene	10.0	8.58	86	70-130	
1,4-Dichlorobenzene	10.0	8.73	87	70-130	
Benzyl chloride	10.0	9.68	97	70-130	
n-Butylbenzene	10.0	9.74	97	70-130	
1,2-Dichlorobenzene	10.0	8.79	88	70-130	
1,2,4-Trichlorobenzene	10.0	8.27	83	70-130	
Hexachlorobutadiene	10.0	8.10	81	70-130	
Naphthalene	10.0	8.28	83	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10265-003.D
 Lab ID: LCS 200-79579/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Propylene	10.0	10.6	106	70-130	
Dichlorodifluoromethane	10.0	9.62	96	70-130	
Freon 22	10.0	11.0	110	70-130	
1,2-Dichlorotetrafluoroethane	10.0	10.1	101	70-130	
Chloromethane	10.0	10.1	101	70-130	
n-Butane	10.0	10.4	104	70-130	
Vinyl chloride	10.0	9.03	90	70-130	
1,3-Butadiene	10.0	8.66	87	70-130	
Bromomethane	10.0	7.21	72	70-130	
Chloroethane	10.0	8.16	82	70-130	
Bromoethene (Vinyl Bromide)	10.0	8.75	88	70-130	
Trichlorofluoromethane	10.0	10.3	103	70-130	
Ethanol	15.0	17.0	113	70-130	
Freon TF	10.0	9.34	93	70-130	
1,1-Dichloroethene	10.0	8.77	88	70-130	
Acetone	10.0	11.1	111	70-130	
Isopropyl alcohol	10.0	9.49	95	70-130	
Carbon disulfide	10.0	10.6	106	70-130	
3-Chloropropene	10.0	10.8	108	70-130	
Methylene Chloride	10.0	10.5	105	70-130	
tert-Butyl alcohol	10.0	9.29	93	70-130	
Methyl tert-butyl ether	10.0	10.2	102	70-130	
trans-1,2-Dichloroethene	10.0	11.3	113	70-130	
n-Hexane	10.0	11.4	114	70-130	
1,1-Dichloroethane	10.0	11.3	113	70-130	
Vinyl acetate	10.0	12.0	120	70-130	
Ethyl acetate	10.0	12.0	120	70-130	
Methyl Ethyl Ketone	10.0	10.1	101	70-130	
cis-1,2-Dichloroethene	10.0	10.3	103	70-130	
Chloroform	10.0	11.8	118	70-130	
Tetrahydrofuran	10.0	12.6	126	70-130	
1,1,1-Trichloroethane	10.0	9.84	98	70-130	
Cyclohexane	10.0	9.96	100	70-130	
Carbon tetrachloride	10.0	10.1	101	70-130	
2,2,4-Trimethylpentane	10.0	12.4	124	70-130	
Benzene	10.0	10.8	108	70-130	
1,2-Dichloroethane	10.0	11.5	115	70-130	
n-Heptane	10.0	14.1	141	70-130	*
Trichloroethene	10.0	10.6	106	70-130	
Methyl methacrylate	10.0	12.1	121	70-130	
1,2-Dichloropropane	10.0	12.7	127	70-130	
1,4-Dioxane	10.0	10.2	102	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10265-003.D
 Lab ID: LCS 200-79579/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	10.9	109	70-130	
cis-1,3-Dichloropropene	10.0	11.7	117	70-130	
methyl isobutyl ketone	10.0	13.9	140	70-130	*
Toluene	10.0	10.5	105	70-130	
trans-1,3-Dichloropropene	10.0	11.6	116	70-130	
1,1,2-Trichloroethane	10.0	11.3	113	70-130	
Tetrachloroethene	10.0	9.83	98	70-130	
Methyl Butyl Ketone (2-Hexanone)	10.0	13.4	134	70-130	*
Dibromochloromethane	10.0	9.19	92	70-130	
1,2-Dibromoethane	10.0	10.1	101	70-130	
Chlorobenzene	10.0	9.88	99	70-130	
Ethylbenzene	10.0	10.5	105	70-130	
m,p-Xylene	20.0	19.1	96	70-130	
Xylene, o-	10.0	9.71	97	70-130	
Styrene	10.0	9.91	99	70-130	
Bromoform	10.0	9.31	93	70-130	
Cumene	10.0	9.91	99	70-130	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	70-130	
n-Propylbenzene	10.0	10.3	103	70-130	
4-Ethyltoluene	10.0	9.56	96	70-130	
1,3,5-Trimethylbenzene	10.0	9.94	99	70-130	
2-Chlorotoluene	10.0	9.86	99	70-130	
tert-Butylbenzene	10.0	9.70	97	70-130	
1,2,4-Trimethylbenzene	10.0	9.86	99	70-130	
sec-Butylbenzene	10.0	9.89	99	70-130	
4-Isopropyltoluene	10.0	9.67	97	70-130	
1,3-Dichlorobenzene	10.0	8.96	90	70-130	
1,4-Dichlorobenzene	10.0	9.15	91	70-130	
Benzyl chloride	10.0	10.8	108	70-130	
n-Butylbenzene	10.0	10.2	102	70-130	
1,2-Dichlorobenzene	10.0	9.36	94	70-130	
1,2,4-Trichlorobenzene	10.0	9.64	96	70-130	
Hexachlorobutadiene	10.0	10.6	106	70-130	
Naphthalene	10.0	9.75	98	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10265-003.D
 Lab ID: LCS 200-79579/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Propylene	10.0	10.6	106	70-130	
Dichlorodifluoromethane	10.0	9.62	96	70-130	
Freon 22	10.0	11.0	110	70-130	
1,2-Dichlorotetrafluoroethane	10.0	10.1	101	70-130	
Chloromethane	10.0	10.1	101	70-130	
n-Butane	10.0	10.4	104	70-130	
Vinyl chloride	10.0	9.03	90	70-130	
1,3-Butadiene	10.0	8.66	87	70-130	
Bromomethane	10.0	7.21	72	70-130	
Chloroethane	10.0	8.16	82	70-130	
Bromoethene (Vinyl Bromide)	10.0	8.75	88	70-130	
Trichlorofluoromethane	10.0	10.3	103	70-130	
Ethanol	15.0	17.0	113	70-130	
Freon TF	10.0	9.34	93	70-130	
1,1-Dichloroethene	10.0	8.77	88	70-130	
Acetone	10.0	11.1	111	70-130	
Isopropyl alcohol	10.0	9.49	95	70-130	
Carbon disulfide	10.0	10.6	106	70-130	
3-Chloropropene	10.0	10.8	108	70-130	
Methylene Chloride	10.0	10.5	105	70-130	
tert-Butyl alcohol	10.0	9.29	93	70-130	
Methyl tert-butyl ether	10.0	10.2	102	70-130	
trans-1,2-Dichloroethene	10.0	11.3	113	70-130	
n-Hexane	10.0	11.4	114	70-130	
1,1-Dichloroethane	10.0	11.3	113	70-130	
Vinyl acetate	10.0	12.0	120	70-130	
Ethyl acetate	10.0	12.0	120	70-130	
Methyl Ethyl Ketone	10.0	10.1	101	70-130	
cis-1,2-Dichloroethene	10.0	10.3	103	70-130	
Chloroform	10.0	11.8	118	70-130	
Tetrahydrofuran	10.0	12.6	126	70-130	
1,1,1-Trichloroethane	10.0	9.84	98	70-130	
Cyclohexane	10.0	9.96	100	70-130	
Carbon tetrachloride	10.0	10.1	101	70-130	
2,2,4-Trimethylpentane	10.0	12.4	124	70-130	
Benzene	10.0	10.8	108	70-130	
1,2-Dichloroethane	10.0	11.5	115	70-130	
n-Heptane	10.0	14.1	141	70-130	*
Trichloroethene	10.0	10.6	106	70-130	
Methyl methacrylate	10.0	12.1	121	70-130	
1,2-Dichloropropane	10.0	12.7	127	70-130	
1,4-Dioxane	10.0	10.2	102	70-130	

Column to be used to flag recovery and RPD values

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: 10265-003.D
 Lab ID: LCS 200-79579/3 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Bromodichloromethane	10.0	10.9	109	70-130	
cis-1,3-Dichloropropene	10.0	11.7	117	70-130	
methyl isobutyl ketone	10.0	13.9	140	70-130	*
Toluene	10.0	10.5	105	70-130	
trans-1,3-Dichloropropene	10.0	11.6	116	70-130	
1,1,2-Trichloroethane	10.0	11.3	113	70-130	
Tetrachloroethene	10.0	9.83	98	70-130	
Methyl Butyl Ketone (2-Hexanone)	10.0	13.4	134	70-130	*
Dibromochloromethane	10.0	9.19	92	70-130	
1,2-Dibromoethane	10.0	10.1	101	70-130	
Chlorobenzene	10.0	9.88	99	70-130	
Ethylbenzene	10.0	10.5	105	70-130	
m,p-Xylene	20.0	19.1	96	70-130	
Xylene, o-	10.0	9.71	97	70-130	
Styrene	10.0	9.91	99	70-130	
Bromoform	10.0	9.31	93	70-130	
Cumene	10.0	9.91	99	70-130	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	70-130	
n-Propylbenzene	10.0	10.3	103	70-130	
4-Ethyltoluene	10.0	9.56	96	70-130	
1,3,5-Trimethylbenzene	10.0	9.94	99	70-130	
2-Chlorotoluene	10.0	9.86	99	70-130	
tert-Butylbenzene	10.0	9.70	97	70-130	
1,2,4-Trimethylbenzene	10.0	9.86	99	70-130	
sec-Butylbenzene	10.0	9.89	99	70-130	
4-Isopropyltoluene	10.0	9.67	97	70-130	
1,3-Dichlorobenzene	10.0	8.96	90	70-130	
1,4-Dichlorobenzene	10.0	9.15	91	70-130	
Benzyl chloride	10.0	10.8	108	70-130	
n-Butylbenzene	10.0	10.2	102	70-130	
1,2-Dichlorobenzene	10.0	9.36	94	70-130	
1,2,4-Trichlorobenzene	10.0	9.64	96	70-130	
Hexachlorobutadiene	10.0	10.6	106	70-130	
Naphthalene	10.0	9.75	98	70-130	

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab File ID: 9441_005.D Lab Sample ID: MB 200-77217/5
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHC.i Date Analyzed: 09/15/2014 11:50
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-77217/4	9441_004.D	09/15/2014 10:57
2708	200-24163-10	9441_008.D	09/15/2014 14:45

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-77217/5
 Matrix: Air Lab File ID: 9441_005.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 09/15/2014 11:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.20	U	0.20	0.20
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-77217/5
 Matrix: Air Lab File ID: 9441_005.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 09/15/2014 11:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.20	U	0.20	0.20
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-77217/5
 Matrix: Air Lab File ID: 9441_005.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200(mL) Date Analyzed: 09/15/2014 11:50
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\9441_005.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 15-Sep-2014 11:50:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0009441-005
 Misc. Info.: mb
 Operator ID: wrd Instrument ID: CHC.i
 Method: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\TO15_LLNJ_TO3_CHC.m
 Limit Group: AI_TO15_ICAL
 Last Update: 15-Sep-2014 13:33:13 Calib Date: 15-Aug-2014 16:40:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHC.i\20140815-9029.b\9029_010.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: desjardinsb

Date: 15-Sep-2014 13:33:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
1 Propene	41		2.994					0	
5 Freon 115 TIC	85		3.068					ND	
2 Dichlorodifluoromethane	85		3.069					ND	
6 Chlorodifluoromethane	51		3.122					ND	
3 Difluoroethane TIC	51		3.127					ND	
4 Chlorotrifluoroethene TIC	116		3.162					ND	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.341					ND	
8 Chloromethane	50		3.479					0	
9 Butane	43		3.688					ND	
10 Vinyl chloride	62		3.736					ND	
11 Butadiene	54		3.816					ND	
12 Bromomethane	94		4.520					ND	
13 Chloroethane	64		4.771					ND	
14 2-Methylbutane	43		4.840					ND	
15 Vinyl bromide	106		5.177					ND	
16 Trichlorofluoromethane	101		5.278					ND	
17 Pentane	43		5.422					ND	
19 Ethanol	45		5.929					ND	
21 Ethyl ether	59		5.982					ND	
20 1,1,1-Trifluoro-2,2-dichlo	83		6.000					ND	
22 Acrolein	56		6.388					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.399					ND	
24 1,1-Dichloroethene	96		6.441					ND	
25 Acetone	43		6.719					0	
26 Carbon disulfide	76		6.820					ND	
27 Isopropyl alcohol	45		7.050					ND	
28 Methyl Acetate TIC	43		7.200					ND	
29 3-Chloro-1-propene	41		7.263					ND	
30 Acetonitrile	41		7.429					ND	
31 Methylene Chloride	49	7.568	7.568	0.000	75	1375		0.0861	
32 2-Methyl-2-propanol	59		7.845					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Methyl tert-butyl ether	73		7.989					ND	
34 trans-1,2-Dichloroethene	61		8.010					ND	
35 Acrylonitrile	53		8.197					ND	
36 Hexane	57		8.400					ND	
37 1,1-Dichloroethane	63		8.912					ND	
38 Vinyl acetate	43		9.008					ND	
39 cis-1,2-Dichloroethene	96		10.055					ND	
40 2-Butanone (MEK)	72		10.135					ND	
42 Ethyl acetate	88		10.172					ND	
S 41 1,2-Dichloroethene, Total	61		10.200					0	
* 43 Chlorobromomethane	128	10.524	10.529	-0.005	72	171495	10.0	10.0	
44 Tetrahydrofuran	42		10.551					ND	
45 Chloroform	83		10.674					ND	
46 Cyclohexane	84		10.887					ND	
47 1,1,1-Trichloroethane	97		10.935					ND	
48 Carbon tetrachloride	117		11.181					ND	
49 Methyl cyclohexane TIC	55		11.500					ND	
51 Isooctane	57		11.634					ND	
50 Benzene	78		11.666					ND	
52 1,2-Dichloroethane	62		11.869					ND	
53 n-Heptane	43		12.040					ND	
* 54 1,4-Difluorobenzene	114	12.536	12.542	-0.006	95	835725	10.0	10.0	
55 n-Butanol	56		12.990					ND	
56 Trichloroethene	95		13.000					ND	
A 57 GRO	1	13.150	(4.830-21.469)		0	150700		0	
58 1,2-Dichloropropane	63		13.582					ND	
59 Methyl methacrylate	69		13.774					ND	
60 1,4-Dioxane	88		13.838					ND	
61 Dibromomethane	174		13.844					ND	
62 Dichlorobromomethane	83		14.153					ND	
A 63 TVOC as Toluene	1	14.863	(2.984-26.742)		0	464282		11.7	
64 cis-1,3-Dichloropropene	75		15.103					ND	
65 4-Methyl-2-pentanone (MIBK)	43		15.413					ND	
66 Toluene	92		15.685					ND	
A 67 Toluene Range	1		(15.645-15.725)					ND	
68 n-Octane	43		15.744					ND	
A 69 C8 Range	1		(15.743-16.244)					ND	
70 trans-1,3-Dichloropropene	75		16.304					ND	
71 1,1,2-Trichloroethane	83		16.678					ND	
72 Tetrachloroethene	166		16.763					ND	
73 2-Hexanone	43		17.142					ND	
74 Chlorodibromomethane	129		17.435					ND	
75 Ethylene Dibromide	107		17.702					ND	
* 76 Chlorobenzene-d5	117	18.594	18.599	-0.005	94	789168	10.0	10.0	
80 1,2-Dibromo-3-Chloropropan	75	18.594	18.604	-0.010	36	19487		NC	
77 Chlorobenzene	112		18.658					ND	
78 Ethylbenzene	91		18.807					ND	
79 n-Nonane	57		18.930					ND	
81 m-Xylene & p-Xylene	106		19.058					ND	
83 o-Xylene	106		19.901					ND	
84 Styrene	104		19.954					ND	
S 82 Xylenes, Total	106		20.100					0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 Bromoform	173		20.371					ND	
86 Isopropylbenzene	105		20.574					ND	
\$ 87 4-Bromofluorobenzene	95	20.942	20.942	0.000	87	663434	NC	NC	
88 1,1,2,2-Tetrachloroethane	83		21.230					ND	
90 N-Propylbenzene	91		21.283					0	
89 1,2,3-Trichloropropane	75		21.321					ND	
93 n-Decane	57		21.459					ND	
91 4-Ethyltoluene	105		21.475					ND	
92 2-Chlorotoluene	91		21.481					0	
94 1,3,5-Trimethylbenzene	105		21.582					ND	
95 Alpha Methyl Styrene	118		21.945					ND	
96 tert-Butylbenzene	119		22.068					ND	
97 1,2,4-Trimethylbenzene	105		22.159					ND	
98 sec-Butylbenzene	105		22.388					ND	
99 4-Isopropyltoluene	119		22.586					ND	
100 1,3-Dichlorobenzene	146		22.618					ND	
101 1,4-Dichlorobenzene	146		22.751					ND	
102 Benzyl chloride	91		22.954					0	
103 n-Butylbenzene	91		23.157					0	
104 Undecane	57		23.178					ND	
105 1,2-Dichlorobenzene	146		23.285					0	
106 Dodecane	57		24.752					ND	
107 1,2,4-Trichlorobenzene	180	25.772	25.777	-0.005	1	866		0.0151	
108 Hexachlorobutadiene	225		25.958					ND	
109 Naphthalene	128		26.263					0	
110 1,2,3-Trichlorobenzene	180		26.732					0	
111 Total Alkanes	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

ATTO15CISs_00006

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\9441_005.D

Injection Date: 15-Sep-2014 11:50:30

Instrument ID: CHC.i

Operator ID: wrd

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

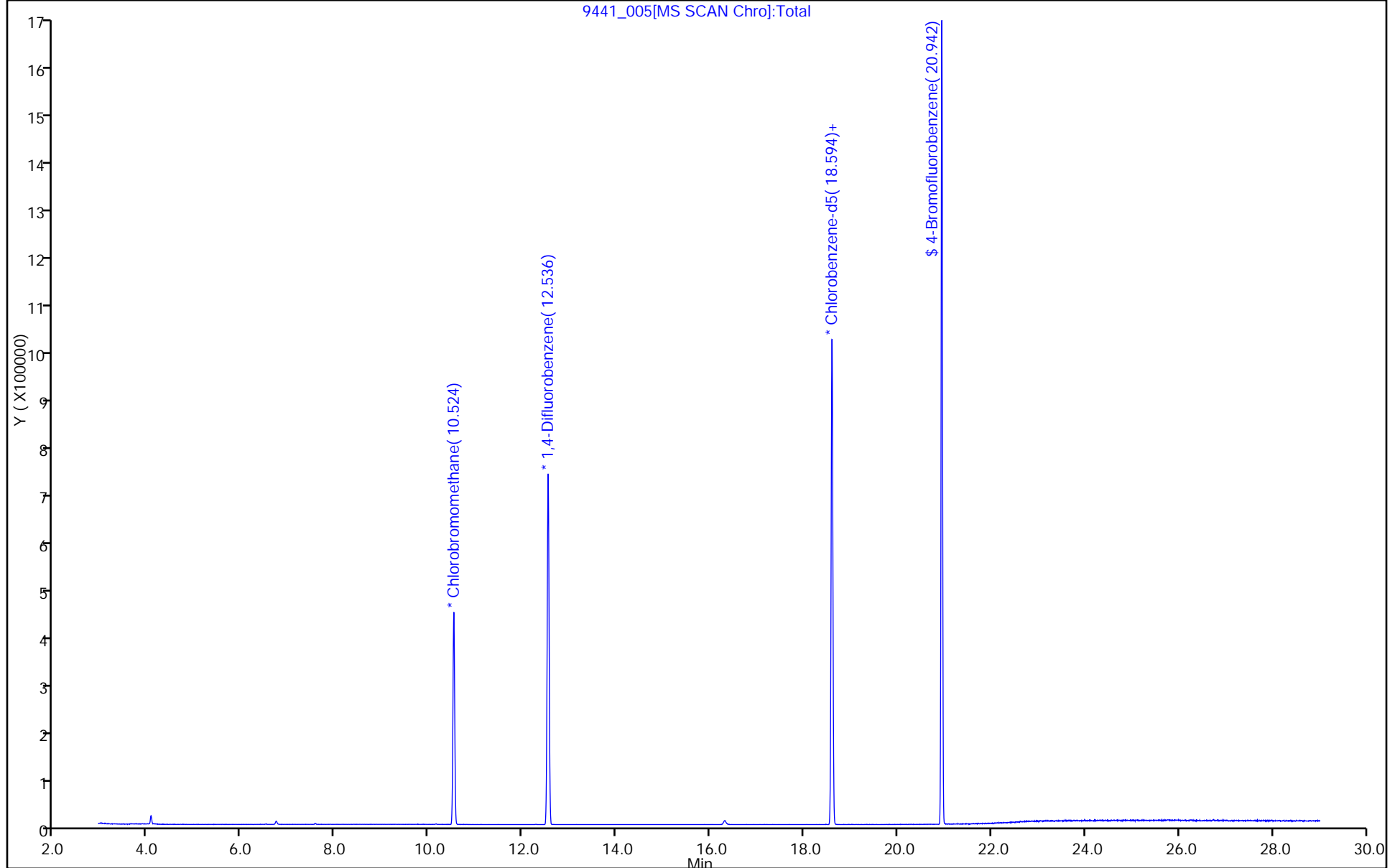
ALS Bottle#: 4

Method: TO15_LLNJ_TO3_CHC

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab File ID: 10085_04.D Lab Sample ID: MB 200-78929/4
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHG.i Date Analyzed: 10/20/2014 13:37
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-78929/3	10085_03.D	10/20/2014 12:45
4918	200-24861-7	10085_16.D	10/20/2014 23:55

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-78929/4
 Matrix: Air Lab File ID: 10085_04.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/20/2014 13:37
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.20	U	0.20	0.20
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-78929/4
 Matrix: Air Lab File ID: 10085_04.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/20/2014 13:37
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.20	U	0.20	0.20
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-78929/4
 Matrix: Air Lab File ID: 10085_04.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200(mL) Date Analyzed: 10/20/2014 13:37
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\10085_04.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 20-Oct-2014 13:37:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0010085-004
 Misc. Info.: mb
 Operator ID: pad Instrument ID: CHG.i
 Method: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\TO15_LLNJ_TO3_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 21-Oct-2014 09:08:38 Calib Date: 30-Sep-2014 09:46:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHG.i\20140929-9732.b\9732_021.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK026

First Level Reviewer: daiglep

Date: 21-Oct-2014 07:44:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
1 Propene	41		2.763					ND	
2 Dichlorodifluoromethane	85		2.833					ND	
6 Chlorodifluoromethane	51		2.886					ND	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.100					ND	
8 Chloromethane	50		3.234					ND	
9 Butane	43		3.442					ND	
10 Vinyl chloride	62		3.485					ND	
11 Butadiene	54		3.565					ND	
12 Bromomethane	94		4.266					ND	
14 Chloroethane	64		4.518					ND	
15 2-Methylbutane	43		4.598					ND	
16 Vinyl bromide	106		4.924					ND	
17 Trichlorofluoromethane	101		5.037					ND	
18 Pentane	43		5.192					ND	
19 Ethanol	45		5.673					ND	
21 Ethyl ether	59		5.754					ND	
22 Acrolein	56		6.139					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.176					ND	
24 1,1-Dichloroethene	96		6.208					ND	
25 Acetone	43		6.476					ND	
26 Carbon disulfide	76		6.588					ND	
27 Isopropyl alcohol	45		6.813					ND	
29 3-Chloro-1-propene	41		7.037					ND	
30 Acetonitrile	41		7.182					ND	
31 Methylene Chloride	49		7.342					ND	
32 2-Methyl-2-propanol	59		7.626					ND	
33 Methyl tert-butyl ether	73		7.781					ND	
34 trans-1,2-Dichloroethene	61		7.797					ND	
35 Acrylonitrile	53		7.968					ND	
36 Hexane	57		8.209					ND	
37 1,1-Dichloroethane	63		8.701					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
38 Vinyl acetate	43		8.808					ND	
39 cis-1,2-Dichloroethene	96		9.841					ND	
40 2-Butanone (MEK)	72		9.910					ND	
42 Ethyl acetate	88		9.969					ND	
S 41 1,2-Dichloroethene, Total	61		10.200					0	
* 43 Chlorobromomethane	128	10.306	10.311	-0.005	81	524502	10.0	10.0	
44 Tetrahydrofuran	42		10.317					ND	
45 Chloroform	83		10.451					ND	
46 Cyclohexane	84		10.681					ND	
47 1,1,1-Trichloroethane	97		10.723					ND	
48 Carbon tetrachloride	117		10.975					ND	
51 Isooctane	57		11.435					ND	
50 Benzene	78		11.446					ND	
52 1,2-Dichloroethane	62		11.633					ND	
53 n-Heptane	43		11.836					ND	
* 54 1,4-Difluorobenzene	114	12.307	12.312	-0.005	93	2807444	10.0	10.0	
55 n-Butanol	56		12.740					ND	
56 Trichloroethene	95		12.767					ND	
A 57 GRO	1	13.005	(4.588-21.422)		0	1334895		0	
58 1,2-Dichloropropane	63		13.323					ND	
59 Methyl methacrylate	69		13.532					ND	
60 1,4-Dioxane	88		13.569					ND	
61 Dibromomethane	174		13.585					ND	
62 Dichlorobromomethane	83		13.896					ND	
A 63 TVOC as Toluene	1	14.704	(2.753-26.654)		0	1472921		0	
64 cis-1,3-Dichloropropene	75		14.880					ND	
65 4-Methyl-2-pentanone (MIBK)	43		15.206					ND	
66 Toluene	92		15.495					ND	
A 67 Toluene Range	1	15.495	(15.455-15.535)		0	12852		NC	
69 n-Octane	43		15.581					ND	
A 68 C8 Range	1	15.562	(15.531-15.631)		0	14270		NC	
70 trans-1,3-Dichloropropene	75		16.121					ND	
71 1,1,2-Trichloroethane	83		16.501					ND	
72 Tetrachloroethene	166		16.608					ND	
73 2-Hexanone	43		16.988					ND	
74 Chlorodibromomethane	129		17.282					ND	
75 Ethylene Dibromide	107		17.555					ND	
* 76 Chlorobenzene-d5	117	18.475	18.475	0.000	84	3000685	10.0	10.0	
77 Chlorobenzene	112		18.534					ND	
78 Ethylbenzene	91		18.700					ND	
79 n-Nonane	57		18.850					ND	
80 m-Xylene & p-Xylene	106		18.957					ND	
83 o-Xylene	106		19.807					ND	
84 Styrene	104		19.855					ND	
S 82 Xylenes, Total	106		20.100					0	
85 Bromoform	173		20.273					ND	
86 Isopropylbenzene	105		20.503					ND	
* 87 4-Bromofluorobenzene	95	20.861	20.866	-0.005	96	2024321	10.0	10.0	
88 1,1,2,2-Tetrachloroethane	83		21.150					ND	
90 N-Propylbenzene	91		21.225					ND	
89 1,2,3-Trichloropropane	75		21.246					ND	
93 n-Decane	57		21.412					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
91 4-Ethyltoluene	105		21.417					ND	
92 2-Chlorotoluene	91		21.417					ND	
94 1,3,5-Trimethylbenzene	105		21.524					ND	
95 Alpha Methyl Styrene	118		21.888					ND	
96 tert-Butylbenzene	119		22.011					ND	
97 1,2,4-Trimethylbenzene	105		22.108					ND	
98 sec-Butylbenzene	105		22.338					ND	
99 4-Isopropyltoluene	119		22.536					ND	
100 1,3-Dichlorobenzene	146		22.557					ND	
101 1,4-Dichlorobenzene	146		22.691					ND	
102 Benzyl chloride	91		22.889					ND	
103 n-Butylbenzene	91		23.103					ND	
104 Undecane	57		23.135					ND	
105 1,2-Dichlorobenzene	146		23.220					ND	
106 Dodecane	57		24.702					ND	
107 1,2,4-Trichlorobenzene	180		25.697					ND	
108 Hexachlorobutadiene	225		25.890					ND	
109 Naphthalene	128		26.179					ND	
110 1,2,3-Trichlorobenzene	180		26.644					ND	
T 115 Methyl acetylene TIC	1		0.000					0	
T 116 1,2-Dibromo-3-Chloropropan	1		0.000					0	
T 117 Methyl cyclohexane TIC	1		0.000					0	
T 118 1,1,1,2-Tetrachloroethane	1		0.000					0	
T 119 Methyl Acetate TIC	1		0.000					0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\10085_04.D

Injection Date: 20-Oct-2014 13:37:30

Instrument ID: CHG.i

Operator ID: pad

Lims ID: mb

Worklist Smp#: 4

Client ID:

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

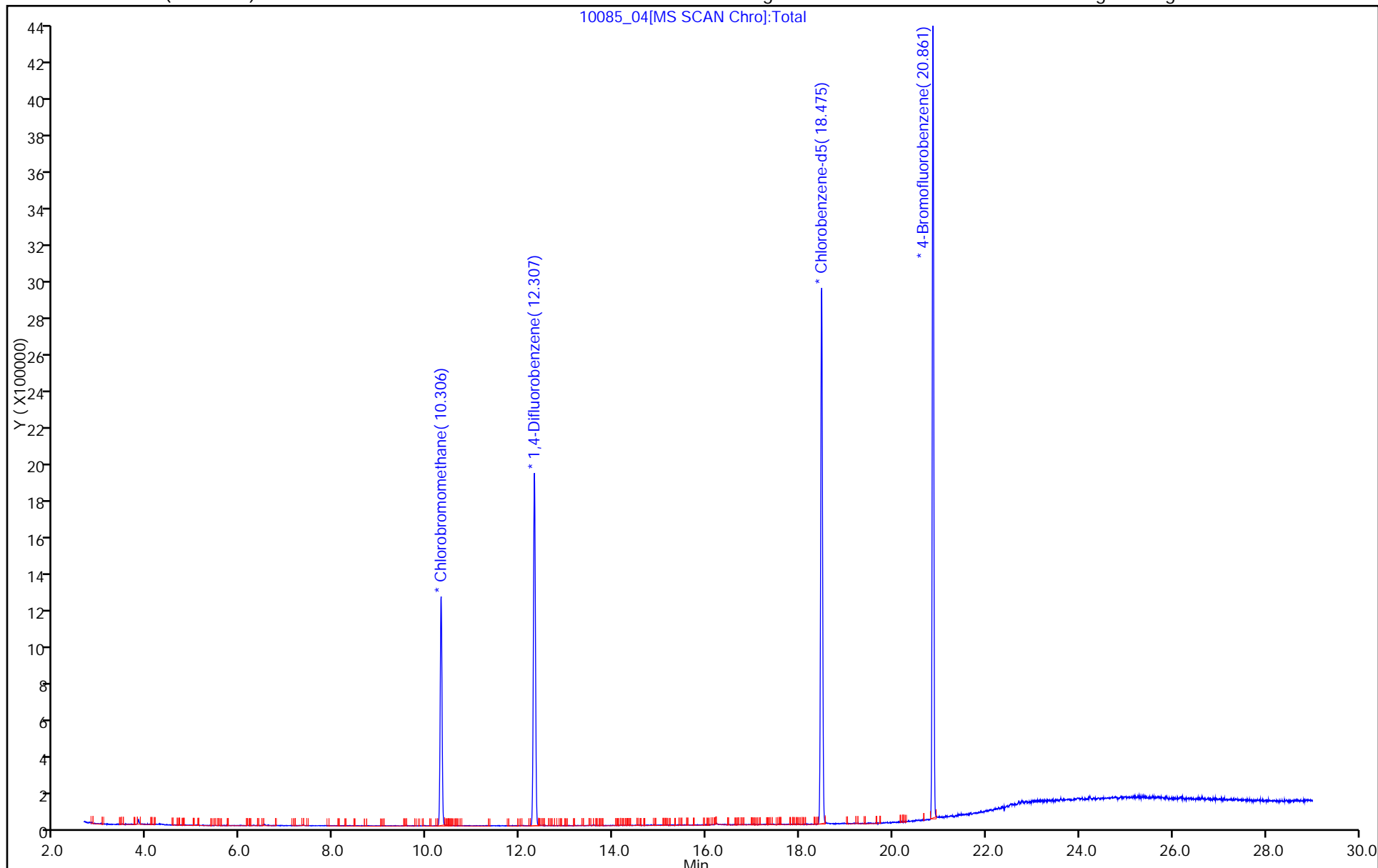
ALS Bottle#: 4

Method: TO15_LLNJ_TO3_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab File ID: 10232_05.D Lab Sample ID: MB 200-79449/5
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHG.i Date Analyzed: 10/28/2014 13:08
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-79449/4	10232_04.D	10/28/2014 12:17
3380	200-24999-5	10232_24.D	10/29/2014 05:22

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79449/5
 Matrix: Air Lab File ID: 10232_05.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/28/2014 13:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.20	U	0.20	0.20
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79449/5
 Matrix: Air Lab File ID: 10232_05.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/28/2014 13:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.20	U	0.20	0.20
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79449/5
 Matrix: Air Lab File ID: 10232_05.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200(mL) Date Analyzed: 10/28/2014 13:08
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\10232_05.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Oct-2014 13:08:30 ALS Bottle#: 8 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0010232-005
 Misc. Info.: mb
 Operator ID: pad Instrument ID: CHG.i
 Method: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\TO15_LLNJ_TO3_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 29-Oct-2014 08:43:38 Calib Date: 30-Sep-2014 09:46:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHG.i\20140929-9732.b\9732_021.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: desjardinsb

Date: 29-Oct-2014 08:43:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
1 Propene	41		2.763					0	
2 Dichlorodifluoromethane	85		2.838					ND	
6 Chlorodifluoromethane	51		2.891					0	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.105					ND	
8 Chloromethane	50		3.239					0	
9 Butane	43		3.442					0	
10 Vinyl chloride	62		3.485					ND	
11 Butadiene	54		3.565					0	
12 Bromomethane	94		4.266					0	
14 Chloroethane	64		4.518					ND	
15 2-Methylbutane	43		4.598					ND	
16 Vinyl bromide	106		4.924					0	
17 Trichlorofluoromethane	101		5.037					ND	
18 Pentane	43		5.186					ND	
19 Ethanol	45		5.673					0	
21 Ethyl ether	59		5.748					ND	
22 Acrolein	56		6.139					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.176					ND	
24 1,1-Dichloroethene	96		6.203					0	
25 Acetone	43		6.470					0	
26 Carbon disulfide	76		6.583					0	
27 Isopropyl alcohol	45		6.813					0	
29 3-Chloro-1-propene	41		7.032					0	
30 Acetonitrile	41		7.171					0	
31 Methylene Chloride	49		7.337					0	
32 2-Methyl-2-propanol	59		7.621					ND	
33 Methyl tert-butyl ether	73		7.776					ND	
34 trans-1,2-Dichloroethene	61		7.792					0	
35 Acrylonitrile	53		7.958					ND	
36 Hexane	57		8.204					ND	
37 1,1-Dichloroethane	63		8.690					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
38 Vinyl acetate	43		8.797					0	
39 cis-1,2-Dichloroethene	96		9.830					0	
40 2-Butanone (MEK)	72		9.900					ND	
42 Ethyl acetate	88		9.964					ND	
S 41 1,2-Dichloroethene, Total	61		10.200					0	
* 43 Chlorobromomethane	128	10.290	10.301	-0.011	84	676226	10.0	10.0	
44 Tetrahydrofuran	42		10.311					0	
45 Chloroform	83		10.440					ND	
46 Cyclohexane	84		10.681					ND	
47 1,1,1-Trichloroethane	97		10.707					ND	
48 Carbon tetrachloride	117		10.964					ND	
51 Isooctane	57		11.424					ND	
50 Benzene	78		11.435					ND	
52 1,2-Dichloroethane	62		11.622					ND	
53 n-Heptane	43		11.825					ND	
* 54 1,4-Difluorobenzene	114	12.296	12.296	0.000	94	3741095	10.0	10.0	
55 n-Butanol	56		12.740					ND	
56 Trichloroethene	95		12.756					ND	
A 57 GRO	1	13.002	(4.588-21.417)		0	1520786		0	
58 1,2-Dichloropropane	63		13.318					ND	
59 Methyl methacrylate	69		13.521					ND	
60 1,4-Dioxane	88		13.564					ND	
61 Dibromomethane	174		13.569					0	
62 Dichlorobromomethane	83		13.885					ND	
A 63 TVOC as Toluene	1	14.696	(2.753-26.638)		0	1658427		0	
64 cis-1,3-Dichloropropene	75		14.864					0	
65 4-Methyl-2-pentanone (MIBK)	43		15.190					0	
A 67 Toluene Range	1	15.479	(15.439-15.519)		0	9621		NC	
66 Toluene	92		15.479					ND	
A 68 C8 Range	1		(15.520-15.528)					ND	
69 n-Octane	43		15.570					ND	
70 trans-1,3-Dichloropropene	75		16.105					0	
71 1,1,2-Trichloroethane	83		16.490					ND	
72 Tetrachloroethene	166		16.597					0	
73 2-Hexanone	43		16.977					0	
74 Chlorodibromomethane	129		17.266					0	
75 Ethylene Dibromide	107		17.539					0	
* 76 Chlorobenzene-d5	117	18.459	18.459	0.000	85	4110336	10.0	10.0	
77 Chlorobenzene	112		18.523					0	
78 Ethylbenzene	91		18.684					ND	
79 n-Nonane	57		18.834					ND	
80 m-Xylene & p-Xylene	106		18.941					ND	
83 o-Xylene	106		19.791					ND	
84 Styrene	104		19.845					0	
S 82 Xylenes, Total	106		20.100					0	
85 Bromoform	173		20.262					ND	
86 Isopropylbenzene	105		20.487					0	
* 87 4-Bromofluorobenzene	95	20.850	20.850	0.000	92	2825502	10.0	10.0	
88 1,1,2,2-Tetrachloroethane	83		21.139					0	
90 N-Propylbenzene	91		21.214					0	
89 1,2,3-Trichloropropane	75		21.230					0	
91 4-Ethyltoluene	105		21.407					0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
93 n-Decane	57		21.407					ND	
92 2-Chlorotoluene	91		21.407					0	
94 1,3,5-Trimethylbenzene	105		21.514					0	
95 Alpha Methyl Styrene	118		21.877					0	
96 tert-Butylbenzene	119		22.001					0	
97 1,2,4-Trimethylbenzene	105		22.097					0	
98 sec-Butylbenzene	105		22.327					0	
99 4-Isopropyltoluene	119		22.530					0	
100 1,3-Dichlorobenzene	146		22.552					0	
101 1,4-Dichlorobenzene	146		22.685					0	
102 Benzyl chloride	91		22.878					0	
103 n-Butylbenzene	91		23.097					0	
104 Undecane	57		23.129					0	
105 1,2-Dichlorobenzene	146		23.210					0	
106 Dodecane	57		24.697					0	
107 1,2,4-Trichlorobenzene	180		25.686					0	
108 Hexachlorobutadiene	225		25.874					0	
109 Naphthalene	128		26.163					0	
110 1,2,3-Trichlorobenzene	180		26.628					0	
T 118 1,1,1,2-Tetrachloroethane	1		0.000					0	
T 119 Methyl Acetate TIC	1		0.000					0	
T 117 Methyl cyclohexane TIC	1		0.000					0	
T 115 Methyl acetylene TIC	1		0.000					0	
T 116 1,2-Dibromo-3-Chloropropan	1		0.000					0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\10232_05.D

Injection Date: 28-Oct-2014 13:08:30

Instrument ID: CHG.i

Operator ID: pad

Lims ID: mb

Worklist Smp#: 5

Client ID:

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

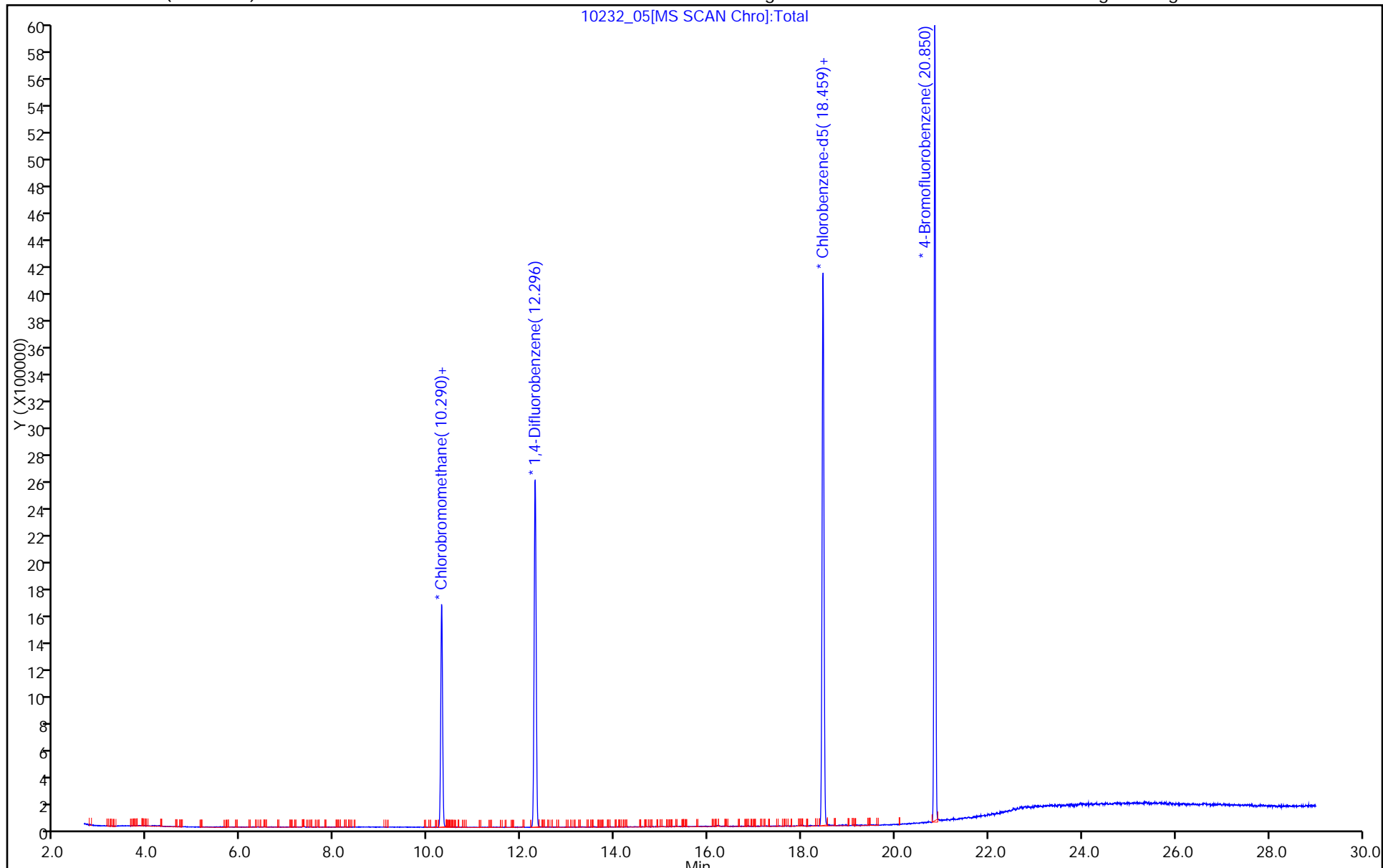
ALS Bottle#: 8

Method: TO15_LLNJ_TO3_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab File ID: 10265-004.D Lab Sample ID: MB 200-79579/4
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHX.i Date Analyzed: 10/30/2014 10:05
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-79579/3	10265-003.D	10/30/2014 09:15
5685	200-25063-12	10265-006.D	10/30/2014 12:06

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.20	U	0.20	0.20
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.20	U	0.20	0.20
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200(mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-004.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 30-Oct-2014 10:05:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0010265-004
 Misc. Info.: mb
 Operator ID: wrd Instrument ID: CHX.i
 Method: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\TO15_LLNJ_TO3_CHX.i.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 30-Oct-2014 09:48:57 Calib Date: 03-Oct-2014 00:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHX.i\20141002-9815.b\9815-011.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: desjardinsb

Date: 30-Oct-2014 12:06:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
1 Propene	41		3.083					0	
3 Dichlorodifluoromethane	85		3.163					ND	
6 Chlorodifluoromethane	51		3.227					ND	
2 Difluoroethane TIC	51		3.235					ND	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.473					ND	
5 Freon 115 TIC	85		3.475					ND	
4 Chlorotrifluoroethene TIC	116		3.481					ND	
8 Chloromethane	50		3.629					0	
9 Butane	43		3.859					ND	
10 Vinyl chloride	62		3.912					ND	
11 Butadiene	54		3.998					ND	
12 Bromomethane	94		4.773					ND	
13 Chloroethane	64		5.052					ND	
14 2-Methylbutane	43		5.127					ND	
15 Vinyl bromide	106		5.490					ND	
16 Trichlorofluoromethane	101		5.608					ND	
17 Pentane	43		5.769					ND	
19 1,1,1-Trifluoro-2,2-dichlo	83		6.000					ND	
20 Ethanol	45		6.320					ND	
21 Ethyl ether	59		6.378					ND	
22 Acrolein	56		6.838					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.844					ND	
24 1,1-Dichloroethene	96		6.881					ND	
25 Acetone	43		7.192					0	
26 Carbon disulfide	76		7.299					0	
27 Isopropyl alcohol	45		7.545					ND	
28 Methyl Acetate TIC	43		7.568					ND	
29 3-Chloro-1-propene	41		7.796					ND	
30 Acetonitrile	41		7.983					ND	
31 Methylene Chloride	49		8.133					0	
32 2-Methyl-2-propanol	59		8.417					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Methyl tert-butyl ether	73		8.588					ND	
34 trans-1,2-Dichloroethene	61		8.620					ND	
35 Acrylonitrile	53		8.845					ND	
36 Hexane	57		9.064					ND	
37 1,1-Dichloroethane	63		9.652					ND	
38 Vinyl acetate	43		9.765					ND	
S 39 1,2-Dichloroethene, Total	61		10.000					0	
40 cis-1,2-Dichloroethene	96		10.974					ND	
42 2-Butanone (MEK)	72		11.054					ND	
43 Ethyl acetate	88		11.102					ND	
45 Tetrahydrofuran	42		11.519					ND	
* 44 Chlorobromomethane	128	11.520	11.530	-0.010	92	358039	10.0	10.0	
46 Chloroform	83		11.696					ND	
47 Cyclohexane	84		11.942					ND	
50 Methyl cyclohexane TIC	55		11.965					ND	
48 1,1,1-Trichloroethane	97		12.001					ND	
49 Carbon tetrachloride	117		12.295					ND	
51 Isooctane	57		12.830					ND	
52 Benzene	78		12.878					0	
53 1,2-Dichloroethane	62		13.119					ND	
54 n-Heptane	43		13.317					ND	
* 55 1,4-Difluorobenzene	114	13.916	13.921	-0.005	94	2006351	10.0	10.0	
56 n-Butanol	56		14.398					ND	
57 Trichloroethene	95		14.456					ND	
59 1,2-Dichloropropane	63		15.125					ND	
60 Methyl methacrylate	69		15.328					ND	
61 1,4-Dioxane	88		15.377					ND	
62 Dibromomethane	174		15.419					0	
63 Dichlorobromomethane	83		15.762					ND	
A 64 TVOC as Toluene	1	16.610	(3.051-30.169)		0	690087		7.31	
A 65 Total Hydrocarbons	1	16.610	(3.051-30.169)		0	690087		NC	
66 cis-1,3-Dichloropropene	75		16.837					ND	
67 4-Methyl-2-pentanone (MIBK)	43		17.179					ND	
A 114 Toluene Range	1		(17.490-17.510)					ND	
68 Toluene	92		17.500					0	
A 58 GRO	1		(17.565-17.565)					0	
A 113 C8 Range	1		(17.555-17.575)					ND	
69 n-Octane	43		17.565					ND	
70 trans-1,3-Dichloropropene	75		18.201					ND	
71 1,1,2-Trichloroethane	83		18.629					ND	
72 Tetrachloroethene	166		18.720					ND	
41 2-Hexanone	43		19.148					ND	
73 Chlorodibromomethane	129		19.490					ND	
74 Ethylene Dibromide	107		19.801					ND	
S 81 Xylenes, Total	106		20.000					0	
* 75 Chlorobenzene-d5	117	20.823	20.828	-0.005	85	1840694	10.0	10.0	
79 1,2-Dibromo-3-Chloropropan	75	20.823	20.846	-0.023	38	25730		NC	
76 Chlorobenzene	112		20.897					ND	
77 Ethylbenzene	91		21.074					ND	
78 n-Nonane	57		21.213					ND	
80 m-Xylene & p-Xylene	106		21.363					ND	
82 o-Xylene	106		22.331					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
83 Styrene	104		22.395					ND	
84 Bromoform	173		22.888					ND	
85 Isopropylbenzene	105		23.128					ND	
* 109 4-Bromofluorobenzene	95	23.546	23.546	0.000	94	1300668	10.0	10.0	
86 1,1,2,2-Tetrachloroethane	83		23.877					0	
87 N-Propylbenzene	91		23.941					0	
88 1,2,3-Trichloropropane	75		23.984					ND	
89 n-Decane	57		24.139					ND	
90 4-Ethyltoluene	105		24.155					0	
91 2-Chlorotoluene	91		24.161					0	
92 1,3,5-Trimethylbenzene	105		24.273					0	
93 Alpha Methyl Styrene	118		24.680					ND	
94 tert-Butylbenzene	119		24.813					ND	
95 1,2,4-Trimethylbenzene	105		24.915					0	
96 sec-Butylbenzene	105		25.167					0	
97 4-Isopropyltoluene	119		25.386					0	
98 1,3-Dichlorobenzene	146		25.413					0	
99 1,4-Dichlorobenzene	146		25.562					0	
100 Benzyl chloride	91		25.792					0	
101 n-Butylbenzene	91		26.022					0	
102 Undecane	57		26.044					0	
103 1,2-Dichlorobenzene	146		26.156					0	
104 Dodecane	57		27.799					0	
105 1,2,4-Trichlorobenzene	180		28.938					0	
106 Hexachlorobutadiene	225		29.141					ND	
107 Naphthalene	128		29.489					0	
108 1,2,3-Trichlorobenzene	180		30.013					0	
110 Total Alkanes	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-004.D

Injection Date: 30-Oct-2014 10:05:30

Instrument ID: CHX.i

Operator ID: wrd

Lims ID: mb

Worklist Smp#: 4

Client ID:

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

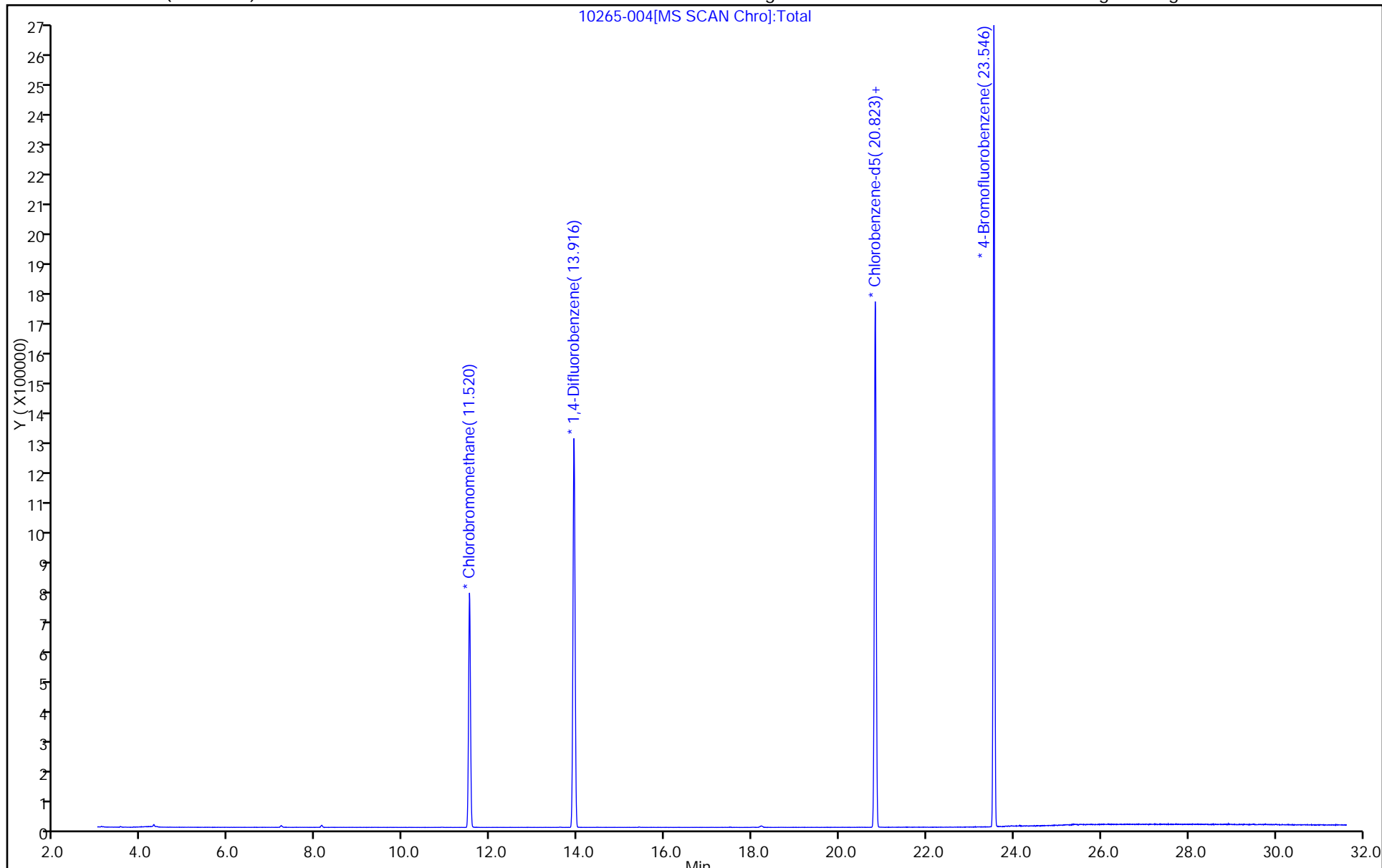
ALS Bottle#: 3

Method: TO15_LLNJ_TO3_CHX.i.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab File ID: 10265-004.D Lab Sample ID: MB 200-79579/4
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHX.i Date Analyzed: 10/30/2014 10:05
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-79579/3	10265-003.D	10/30/2014 09:15
3508	200-25068-9	10265-013.D	10/30/2014 18:26

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.20	U	0.20	0.20
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.20	U	0.20	0.20
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 200-79579/4
 Matrix: Air Lab File ID: 10265-004.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 10/30/2014 10:05
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-004.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 30-Oct-2014 10:05:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0010265-004
 Misc. Info.: mb
 Operator ID: wrd Instrument ID: CHX.i
 Method: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\TO15_LLNJ_TO3_CHX.i.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 30-Oct-2014 09:48:57 Calib Date: 03-Oct-2014 00:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHX.i\20141002-9815.b\9815-011.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: desjardinsb

Date: 30-Oct-2014 12:06:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
1 Propene	41		3.083					0	
3 Dichlorodifluoromethane	85		3.163					ND	
6 Chlorodifluoromethane	51		3.227					ND	
2 Difluoroethane TIC	51		3.235					ND	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.473					ND	
5 Freon 115 TIC	85		3.475					ND	
4 Chlorotrifluoroethene TIC	116		3.481					ND	
8 Chloromethane	50		3.629					0	
9 Butane	43		3.859					ND	
10 Vinyl chloride	62		3.912					ND	
11 Butadiene	54		3.998					ND	
12 Bromomethane	94		4.773					ND	
13 Chloroethane	64		5.052					ND	
14 2-Methylbutane	43		5.127					ND	
15 Vinyl bromide	106		5.490					ND	
16 Trichlorofluoromethane	101		5.608					ND	
17 Pentane	43		5.769					ND	
19 1,1,1-Trifluoro-2,2-dichlo	83		6.000					ND	
20 Ethanol	45		6.320					ND	
21 Ethyl ether	59		6.378					ND	
22 Acrolein	56		6.838					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.844					ND	
24 1,1-Dichloroethene	96		6.881					ND	
25 Acetone	43		7.192					0	
26 Carbon disulfide	76		7.299					0	
27 Isopropyl alcohol	45		7.545					ND	
28 Methyl Acetate TIC	43		7.568					ND	
29 3-Chloro-1-propene	41		7.796					ND	
30 Acetonitrile	41		7.983					ND	
31 Methylene Chloride	49		8.133					0	
32 2-Methyl-2-propanol	59		8.417					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Methyl tert-butyl ether	73		8.588					ND	
34 trans-1,2-Dichloroethene	61		8.620					ND	
35 Acrylonitrile	53		8.845					ND	
36 Hexane	57		9.064					ND	
37 1,1-Dichloroethane	63		9.652					ND	
38 Vinyl acetate	43		9.765					ND	
S 39 1,2-Dichloroethene, Total	61		10.000					0	
40 cis-1,2-Dichloroethene	96		10.974					ND	
42 2-Butanone (MEK)	72		11.054					ND	
43 Ethyl acetate	88		11.102					ND	
45 Tetrahydrofuran	42		11.519					ND	
* 44 Chlorobromomethane	128	11.520	11.530	-0.010	92	358039	10.0	10.0	
46 Chloroform	83		11.696					ND	
47 Cyclohexane	84		11.942					ND	
50 Methyl cyclohexane TIC	55		11.965					ND	
48 1,1,1-Trichloroethane	97		12.001					ND	
49 Carbon tetrachloride	117		12.295					ND	
51 Isooctane	57		12.830					ND	
52 Benzene	78		12.878					0	
53 1,2-Dichloroethane	62		13.119					ND	
54 n-Heptane	43		13.317					ND	
* 55 1,4-Difluorobenzene	114	13.916	13.921	-0.005	94	2006351	10.0	10.0	
56 n-Butanol	56		14.398					ND	
57 Trichloroethene	95		14.456					ND	
59 1,2-Dichloropropane	63		15.125					ND	
60 Methyl methacrylate	69		15.328					ND	
61 1,4-Dioxane	88		15.377					ND	
62 Dibromomethane	174		15.419					0	
63 Dichlorobromomethane	83		15.762					ND	
A 64 TVOC as Toluene	1	16.610	(3.051-30.169)		0	690087		7.31	
A 65 Total Hydrocarbons	1	16.610	(3.051-30.169)		0	690087		NC	
66 cis-1,3-Dichloropropene	75		16.837					ND	
67 4-Methyl-2-pentanone (MIBK)	43		17.179					ND	
A 114 Toluene Range	1		(17.490-17.510)					ND	
68 Toluene	92		17.500					0	
A 58 GRO	1		(17.565-17.565)					0	
A 113 C8 Range	1		(17.555-17.575)					ND	
69 n-Octane	43		17.565					ND	
70 trans-1,3-Dichloropropene	75		18.201					ND	
71 1,1,2-Trichloroethane	83		18.629					ND	
72 Tetrachloroethene	166		18.720					ND	
41 2-Hexanone	43		19.148					ND	
73 Chlorodibromomethane	129		19.490					ND	
74 Ethylene Dibromide	107		19.801					ND	
S 81 Xylenes, Total	106		20.000					0	
* 75 Chlorobenzene-d5	117	20.823	20.828	-0.005	85	1840694	10.0	10.0	
79 1,2-Dibromo-3-Chloropropan	75	20.823	20.846	-0.023	38	25730		NC	
76 Chlorobenzene	112		20.897					ND	
77 Ethylbenzene	91		21.074					ND	
78 n-Nonane	57		21.213					ND	
80 m-Xylene & p-Xylene	106		21.363					ND	
82 o-Xylene	106		22.331					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	DI RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
83 Styrene	104		22.395					ND	
84 Bromoform	173		22.888					ND	
85 Isopropylbenzene	105		23.128					ND	
* 109 4-Bromofluorobenzene	95	23.546	23.546	0.000	94	1300668	10.0	10.0	
86 1,1,2,2-Tetrachloroethane	83		23.877					0	
87 N-Propylbenzene	91		23.941					0	
88 1,2,3-Trichloropropane	75		23.984					ND	
89 n-Decane	57		24.139					ND	
90 4-Ethyltoluene	105		24.155					0	
91 2-Chlorotoluene	91		24.161					0	
92 1,3,5-Trimethylbenzene	105		24.273					0	
93 Alpha Methyl Styrene	118		24.680					ND	
94 tert-Butylbenzene	119		24.813					ND	
95 1,2,4-Trimethylbenzene	105		24.915					0	
96 sec-Butylbenzene	105		25.167					0	
97 4-Isopropyltoluene	119		25.386					0	
98 1,3-Dichlorobenzene	146		25.413					0	
99 1,4-Dichlorobenzene	146		25.562					0	
100 Benzyl chloride	91		25.792					0	
101 n-Butylbenzene	91		26.022					0	
102 Undecane	57		26.044					0	
103 1,2-Dichlorobenzene	146		26.156					0	
104 Dodecane	57		27.799					0	
105 1,2,4-Trichlorobenzene	180		28.938					0	
106 Hexachlorobutadiene	225		29.141					ND	
107 Naphthalene	128		29.489					0	
108 1,2,3-Trichlorobenzene	180		30.013					0	
110 Total Alkanes	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

Reagents:

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-004.D

Injection Date: 30-Oct-2014 10:05:30

Instrument ID: CHX.i

Operator ID: wrd

Lims ID: mb

Worklist Smp#: 4

Client ID:

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

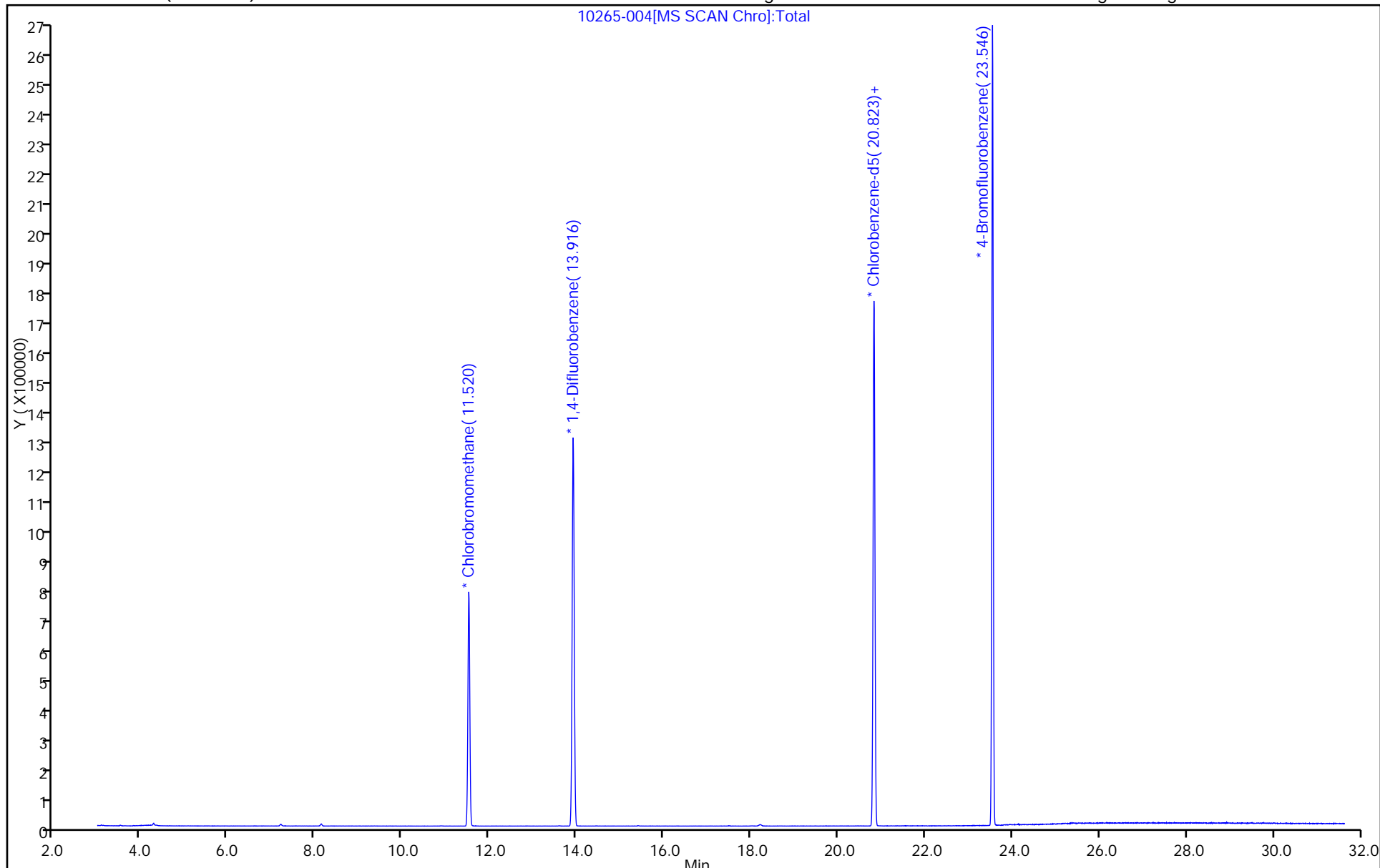
ALS Bottle#: 3

Method: TO15_LLNJ_TO3_CHX.i.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab File ID: 9029_001.D BFB Injection Date: 08/15/2014
 Instrument ID: CHC.i BFB Injection Time: 08:47
 Analysis Batch No.: 76115

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	17.9	
75	30.0 - 66.0% of mass 95	52.8	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.1	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	102.1	
175	4.0 - 9.0 % of mass 174	7.6	(7.4)1
176	93.0 - 101.0% of mass 174	98.9	(96.9)1
177	5.0 - 9.0% of mass 176	6.8	(6.9)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-76115/3	9029_003.D	08/15/2014	10:29
	IC 200-76115/4	9029_004.D	08/15/2014	11:22
	IC 200-76115/5	9029_005.D	08/15/2014	12:16
	IC 200-76115/6	9029_006.D	08/15/2014	13:09
	ICIS 200-76115/7	9029_007.D	08/15/2014	14:01
	IC 200-76115/8	9029_008.D	08/15/2014	14:54
	IC 200-76115/9	9029_009.D	08/15/2014	15:47
	IC 200-76115/10	9029_010.D	08/15/2014	16:40
	ICV 200-76115/13	9029_013.D	08/15/2014	19:19

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab File ID: 9441_001.D BFB Injection Date: 09/15/2014
 Instrument ID: CHC.i BFB Injection Time: 08:16
 Analysis Batch No.: 77217

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	19.4	
75	30.0 - 66.0% of mass 95	55.5	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	7.4	
173	Less than 2.0% of mass 174	0.0	(0.0)1
174	50.0 - 120.0% of mass 95	103.9	
175	4.0 - 9.0 % of mass 174	8.1	(7.8)1
176	93.0 - 101.0% of mass 174	101.1	(97.4)1
177	5.0 - 9.0% of mass 176	7.3	(7.3)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-77217/3	9441_003.D	09/15/2014	10:03
	LCS 200-77217/4	9441_004.D	09/15/2014	10:57
	MB 200-77217/5	9441_005.D	09/15/2014	11:50
2708	200-24163-10	9441_008.D	09/15/2014	14:45

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab File ID: 9732_001.D BFB Injection Date: 09/29/2014
 Instrument ID: CHG.i BFB Injection Time: 13:54
 Analysis Batch No.: 77938

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	17.2	
75	30.0 - 66.0% of mass 95	48.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.5	(0.6)1
174	50.0 - 120.0% of mass 95	91.4	
175	4.0 - 9.0 % of mass 174	6.3	(6.9)1
176	93.0 - 101.0% of mass 174	89.4	(97.8)1
177	5.0 - 9.0% of mass 176	5.8	(6.5)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-77938/5	9732_005.D	09/29/2014	17:12
	IC 200-77938/6	9732_006.D	09/29/2014	18:01
	IC 200-77938/7	9732_007.D	09/29/2014	18:52
	ICIS 200-77938/9	9732_009.D	09/29/2014	20:34
	IC 200-77938/10	9732_010.D	09/29/2014	21:25
	IC 200-77938/11	9732_011.D	09/29/2014	22:17
	IC 200-77938/12	9732_012.D	09/29/2014	23:08
	IC 200-77938/21	9732_021.D	09/30/2014	09:46
	ICV 200-77938/22	9732_022.D	09/30/2014	10:37

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab File ID: 10085_01.D BFB Injection Date: 10/20/2014
 Instrument ID: CHG.i BFB Injection Time: 10:53
 Analysis Batch No.: 78929

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	17.7	
75	30.0 - 66.0% of mass 95	46.5	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.5	(0.6)1
174	50.0 - 120.0% of mass 95	88.6	
175	4.0 - 9.0 % of mass 174	6.2	(7.0)1
176	93.0 - 101.0% of mass 174	88.2	(99.4)1
177	5.0 - 9.0% of mass 176	5.7	(6.4)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-78929/2	10085_02.D	10/20/2014	11:54
	LCS 200-78929/3	10085_03.D	10/20/2014	12:45
	MB 200-78929/4	10085_04.D	10/20/2014	13:37
4918	200-24861-7	10085_16.D	10/20/2014	23:55

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab File ID: 9732_001.D BFB Injection Date: 09/29/2014
 Instrument ID: CHG.i BFB Injection Time: 13:54
 Analysis Batch No.: 77938

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	17.2	
75	30.0 - 66.0% of mass 95	48.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.5	(0.6)1
174	50.0 - 120.0% of mass 95	91.4	
175	4.0 - 9.0 % of mass 174	6.3	(6.9)1
176	93.0 - 101.0% of mass 174	89.4	(97.8)1
177	5.0 - 9.0% of mass 176	5.8	(6.5)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-77938/5	9732_005.D	09/29/2014	17:12
	IC 200-77938/6	9732_006.D	09/29/2014	18:01
	IC 200-77938/7	9732_007.D	09/29/2014	18:52
	ICIS 200-77938/9	9732_009.D	09/29/2014	20:34
	IC 200-77938/10	9732_010.D	09/29/2014	21:25
	IC 200-77938/11	9732_011.D	09/29/2014	22:17
	IC 200-77938/12	9732_012.D	09/29/2014	23:08
	IC 200-77938/21	9732_021.D	09/30/2014	09:46
	ICV 200-77938/22	9732_022.D	09/30/2014	10:37

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab File ID: 10232_01.D BFB Injection Date: 10/28/2014
 Instrument ID: CHG.i BFB Injection Time: 09:37
 Analysis Batch No.: 79449

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.8
75	30.0 - 66.0% of mass 95	49.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 120.0% of mass 95	78.9
175	4.0 - 9.0 % of mass 174	5.5 (7.0)1
176	93.0 - 101.0% of mass 174	78.0 (99.0)1
177	5.0 - 9.0% of mass 176	5.0 (6.4)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-79449/2	10232_02.D	10/28/2014	10:29
	LCS 200-79449/4	10232_04.D	10/28/2014	12:17
	MB 200-79449/5	10232_05.D	10/28/2014	13:08
3380	200-24999-5	10232_24.D	10/29/2014	05:22

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab File ID: 9815-001.D BFB Injection Date: 10/02/2014
 Instrument ID: CHX.i BFB Injection Time: 16:02
 Analysis Batch No.: 78137

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	13.2	
75	30.0 - 66.0% of mass 95	41.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.5	
173	Less than 2.0% of mass 174	0.9	(0.9)1
174	50.0 - 120.0% of mass 95	100.7	
175	4.0 - 9.0 % of mass 174	7.2	(7.1)1
176	93.0 - 101.0% of mass 174	97.0	(96.3)1
177	5.0 - 9.0% of mass 176	6.4	(6.6)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-78137/4	9815-004.D	10/02/2014	18:14
	IC 200-78137/5	9815-005.D	10/02/2014	19:04
	IC 200-78137/6	9815-006.D	10/02/2014	19:54
	IC 200-78137/7	9815-007.D	10/02/2014	20:44
	ICIS 200-78137/8	9815-008.D	10/02/2014	21:33
	IC 200-78137/9	9815-009.D	10/02/2014	22:23
	IC 200-78137/10	9815-010.D	10/02/2014	23:13
	IC 200-78137/11	9815-011.D	10/03/2014	00:02
	ICV 200-78137/14	9815-014.D	10/03/2014	02:33

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab File ID: 10265-001.D BFB Injection Date: 10/30/2014
 Instrument ID: CHX.i BFB Injection Time: 07:37
 Analysis Batch No.: 79579

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	16.1	
75	30.0 - 66.0% of mass 95	45.4	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	0.7	(0.8)1
174	50.0 - 120.0% of mass 95	89.7	
175	4.0 - 9.0 % of mass 174	6.5	(7.3)1
176	93.0 - 101.0% of mass 174	87.1	(97.1)1
177	5.0 - 9.0% of mass 176	5.7	(6.5)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-79579/2	10265-002.D	10/30/2014	08:25
	LCS 200-79579/3	10265-003.D	10/30/2014	09:15
	MB 200-79579/4	10265-004.D	10/30/2014	10:05
5685	200-25063-12	10265-006.D	10/30/2014	12:06

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab File ID: 9815-001.D BFB Injection Date: 10/02/2014
 Instrument ID: CHX.i BFB Injection Time: 16:02
 Analysis Batch No.: 78137

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	13.2	
75	30.0 - 66.0% of mass 95	41.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.5	
173	Less than 2.0% of mass 174	0.9	(0.9)1
174	50.0 - 120.0% of mass 95	100.7	
175	4.0 - 9.0 % of mass 174	7.2	(7.1)1
176	93.0 - 101.0% of mass 174	97.0	(96.3)1
177	5.0 - 9.0% of mass 176	6.4	(6.6)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-78137/4	9815-004.D	10/02/2014	18:14
	IC 200-78137/5	9815-005.D	10/02/2014	19:04
	IC 200-78137/6	9815-006.D	10/02/2014	19:54
	IC 200-78137/7	9815-007.D	10/02/2014	20:44
	ICIS 200-78137/8	9815-008.D	10/02/2014	21:33
	IC 200-78137/9	9815-009.D	10/02/2014	22:23
	IC 200-78137/10	9815-010.D	10/02/2014	23:13
	IC 200-78137/11	9815-011.D	10/03/2014	00:02
	ICV 200-78137/14	9815-014.D	10/03/2014	02:33

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab File ID: 10265-001.D BFB Injection Date: 10/30/2014
 Instrument ID: CHX.i BFB Injection Time: 07:37
 Analysis Batch No.: 79579

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	16.1	
75	30.0 - 66.0% of mass 95	45.4	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	0.7	(0.8)1
174	50.0 - 120.0% of mass 95	89.7	
175	4.0 - 9.0 % of mass 174	6.5	(7.3)1
176	93.0 - 101.0% of mass 174	87.1	(97.1)1
177	5.0 - 9.0% of mass 176	5.7	(6.5)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-79579/2	10265-002.D	10/30/2014	08:25
	LCS 200-79579/3	10265-003.D	10/30/2014	09:15
	MB 200-79579/4	10265-004.D	10/30/2014	10:05
3508	200-25068-9	10265-013.D	10/30/2014	18:26

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Sample No.: ICIS 200-76115/7 Date Analyzed: 08/15/2014 14:01
 Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9029_007.D Heated Purge: (Y/N) N
 Calibration ID: 27711

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	130432	10.55	591926	12.56	600612	18.62
UPPER LIMIT	182605	10.88	828696	12.89	840857	18.95
LOWER LIMIT	78259	10.22	355156	12.23	360367	18.29
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-76115/13	160579	10.55	740106	12.56	719663	18.62

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Sample No.: CCVIS 200-77217/3 Date Analyzed: 09/15/2014 10:03
 Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9441_003.D Heated Purge: (Y/N) N
 Calibration ID: 27711

	BCM		DFB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	132696	10.53	610986	12.54	594945	18.60	
UPPER LIMIT	185774	10.86	855380	12.87	832923	18.93	
LOWER LIMIT	79618	10.20	366592	12.21	356967	18.27	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-77217/4		137689	10.53	630704	12.54	601055	18.60
MB 200-77217/5		171495	10.52	835725	12.54	789168	18.59
200-24163-10	2708	139717	10.52	662408	12.54	619163	18.60

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Sample No.: ICIS 200-77938/9 Date Analyzed: 09/29/2014 20:34
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9732_009.D Heated Purge: (Y/N) N
 Calibration ID: 28067

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	466331	10.34	2188593	12.33	2349464	18.50
UPPER LIMIT	652863	10.67	3064030	12.66	3289250	18.83
LOWER LIMIT	279799	10.01	1313156	12.00	1409678	18.17
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-77938/22	421590	10.33	1845172	12.34	2043014	18.50

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Sample No.: CCVIS 200-78929/2 Date Analyzed: 10/20/2014 11:54
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 10085_02.D Heated Purge: (Y/N) N
 Calibration ID: 28067

	BCM		DFB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	518654	10.31	2539655	12.31	2805717	18.48	
UPPER LIMIT	726116	10.64	3555517	12.64	3928004	18.81	
LOWER LIMIT	311192	9.98	1523793	11.98	1683430	18.15	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-78929/3		430926	10.31	2080682	12.31	2366243	18.48
MB 200-78929/4		524502	10.31	2807444	12.31	3000685	18.48
200-24861-7	4918	511689	10.31	2703350	12.31	2798098	18.47

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Sample No.: ICIS 200-77938/9 Date Analyzed: 09/29/2014 20:34
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9732_009.D Heated Purge: (Y/N) N
 Calibration ID: 28067

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	466331	10.34	2188593	12.33	2349464	18.50
UPPER LIMIT	652863	10.67	3064030	12.66	3289250	18.83
LOWER LIMIT	279799	10.01	1313156	12.00	1409678	18.17
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-77938/22	421590	10.33	1845172	12.34	2043014	18.50

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Sample No.: CCVIS 200-79449/2 Date Analyzed: 10/28/2014 10:29
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 10232_02.D Heated Purge: (Y/N) N
 Calibration ID: 28067

	BCM		DFB		CBZ			
	AREA #	RT #	AREA #	RT #	AREA #	RT #		
12/24 HOUR STD	644585	10.30	3431690	12.30	3894586	18.46		
UPPER LIMIT	902419	10.63	4804366	12.63	5452420	18.79		
LOWER LIMIT	386751	9.97	2059014	11.97	2336752	18.13		
LAB SAMPLE ID	CLIENT SAMPLE ID							
LCS 200-79449/4			648620	10.30	2957733	12.30	3686107	18.46
MB 200-79449/5			676226	10.29	3741095	12.30	4110336	18.46
200-24999-5	3380		626978	10.29	3413991	12.29	3585377	18.45

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Sample No.: ICIS 200-78137/8 Date Analyzed: 10/02/2014 21:33
 Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9815-008.D Heated Purge: (Y/N) N
 Calibration ID: 28118

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	345757	11.54	1605898	13.94	1500029	20.84
UPPER LIMIT	484060	11.87	2248257	14.27	2100041	21.17
LOWER LIMIT	207454	11.21	963539	13.61	900017	20.51
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-78137/14	364270	11.54	1688218	13.94	1572061	20.84

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Sample No.: CCVIS 200-79579/2 Date Analyzed: 10/30/2014 08:25
 Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 10265-002.D Heated Purge: (Y/N) N
 Calibration ID: 28118

	BCM		DFB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	325718	11.53	1757222	13.92	1669283	20.83	
UPPER LIMIT	456005	11.86	2460111	14.25	2336996	21.16	
LOWER LIMIT	195431	11.20	1054333	13.59	1001570	20.50	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-79579/3	338940	11.53	1863260	13.92	1764509	20.83	
MB 200-79579/4	358039	11.52	2006351	13.92	1840694	20.82	
200-25063-12	5685	346418	11.53	1934000	13.92	1778531	20.83

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Sample No.: ICIS 200-78137/8 Date Analyzed: 10/02/2014 21:33
 Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 9815-008.D Heated Purge: (Y/N) N
 Calibration ID: 28118

	BCM		DFB		CBZ	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	345757	11.54	1605898	13.94	1500029	20.84
UPPER LIMIT	484060	11.87	2248257	14.27	2100041	21.17
LOWER LIMIT	207454	11.21	963539	13.61	900017	20.51
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-78137/14	364270	11.54	1688218	13.94	1572061	20.84

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Sample No.: CCVIS 200-79579/2 Date Analyzed: 10/30/2014 08:25
 Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 10265-002.D Heated Purge: (Y/N) N
 Calibration ID: 28118

	BCM		DFB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	325718	11.53	1757222	13.92	1669283	20.83	
UPPER LIMIT	456005	11.86	2460111	14.25	2336996	21.16	
LOWER LIMIT	195431	11.20	1054333	13.59	1001570	20.50	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-79579/3	338940	11.53	1863260	13.92	1764509	20.83	
MB 200-79579/4	358039	11.52	2006351	13.92	1840694	20.82	
200-25068-9	3508	312431	11.53	1700950	13.92	1575342	20.83

BCM = Bromochloromethane
 DFB = 1,4-Difluorobenzene
 CBZ = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: 2708 Lab Sample ID: 200-24163-10
 Matrix: Air Lab File ID: 9441_008.D
 Analysis Method: TO-15 Date Collected: 09/12/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 09/15/2014 14:45
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.040	U	0.040	0.040
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: 2708 Lab Sample ID: 200-24163-10
 Matrix: Air Lab File ID: 9441_008.D
 Analysis Method: TO-15 Date Collected: 09/12/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 09/15/2014 14:45
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.040	U	0.040	0.040
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Client Sample ID: 2708 Lab Sample ID: 200-24163-10
 Matrix: Air Lab File ID: 9441_008.D
 Analysis Method: TO-15 Date Collected: 09/12/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 09/15/2014 14:45
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 77217 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\9441_008.D
 Lims ID: 200-24163-A-10 Lab Sample ID: 200-24163-10
 Client ID: 2708
 Sample Type: Client
 Inject. Date: 15-Sep-2014 14:45:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0009441-008
 Misc. Info.: 24163-10
 Operator ID: wrd Instrument ID: CHC.i
 Method: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\TO15_LLNJ_TO3_CHC.m
 Limit Group: AI_TO15_ICAL
 Last Update: 15-Sep-2014 16:00:57 Calib Date: 15-Aug-2014 16:40:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHC.i\20140815-9029.b\9029_010.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK002

First Level Reviewer: desjardinsb

Date: 15-Sep-2014 16:00:57

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.994				ND	
2 Dichlorodifluoromethane	85		3.069				0	
6 Chlorodifluoromethane	51		3.122				0	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.341				ND	
8 Chloromethane	50		3.479				0	
9 Butane	43		3.688				ND	
10 Vinyl chloride	62		3.736				ND	
11 Butadiene	54		3.816				ND	
12 Bromomethane	94		4.520				ND	
13 Chloroethane	64		4.771				ND	
15 Vinyl bromide	106		5.177				ND	
16 Trichlorofluoromethane	101		5.278				ND	
19 Ethanol	45		5.929				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.399				ND	
24 1,1-Dichloroethene	96		6.441				ND	
25 Acetone	43		6.719				0	
26 Carbon disulfide	76		6.820				ND	
27 Isopropyl alcohol	45		7.050				ND	
29 3-Chloro-1-propene	41		7.263				ND	
31 Methylene Chloride	49	7.562	7.568	-0.006	71	1407	0.1082	
32 2-Methyl-2-propanol	59		7.845				ND	
33 Methyl tert-butyl ether	73		7.989				ND	
34 trans-1,2-Dichloroethene	61		8.010				ND	
36 Hexane	57		8.400				ND	
37 1,1-Dichloroethane	63		8.912				ND	
38 Vinyl acetate	43		9.008				ND	
39 cis-1,2-Dichloroethene	96		10.055				ND	
40 2-Butanone (MEK)	72		10.135				ND	
42 Ethyl acetate	88		10.172				ND	
S 41 1,2-Dichloroethene, Total	61		10.200				0	
* 43 Chlorobromomethane	128	10.524	10.529	-0.005	73	139717	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
44 Tetrahydrofuran	42		10.551				ND	
45 Chloroform	83		10.674				ND	
46 Cyclohexane	84		10.887				ND	
47 1,1,1-Trichloroethane	97		10.935				ND	
48 Carbon tetrachloride	117		11.181				ND	
51 Isooctane	57		11.634				ND	
50 Benzene	78		11.666				ND	
52 1,2-Dichloroethane	62		11.869				ND	
53 n-Heptane	43		12.040				ND	
* 54 1,4-Difluorobenzene	114	12.536	12.542	-0.006	96	662408	10.0	
56 Trichloroethene	95		13.000				ND	
58 1,2-Dichloropropane	63		13.582				ND	
59 Methyl methacrylate	69		13.774				ND	
60 1,4-Dioxane	88		13.838				ND	
61 Dibromomethane	174		13.844				ND	
62 Dichlorobromomethane	83		14.153				ND	
64 cis-1,3-Dichloropropene	75		15.103				ND	
65 4-Methyl-2-pentanone (MIBK)	43		15.413				ND	
66 Toluene	92		15.685				ND	
70 trans-1,3-Dichloropropene	75		16.304				ND	
71 1,1,2-Trichloroethane	83		16.678				ND	
72 Tetrachloroethene	166		16.763				ND	
73 2-Hexanone	43		17.142				ND	
74 Chlorodibromomethane	129		17.435				ND	
75 Ethylene Dibromide	107		17.702				ND	
* 76 Chlorobenzene-d5	117	18.599	18.599	0.000	93	619163	10.0	
77 Chlorobenzene	112		18.658				ND	
78 Ethylbenzene	91		18.807				ND	
81 m-Xylene & p-Xylene	106		19.058				ND	
83 o-Xylene	106		19.901				ND	
84 Styrene	104		19.954				ND	
S 82 Xylenes, Total	106		20.100				0	
85 Bromoform	173		20.371				ND	
86 Isopropylbenzene	105		20.574				ND	
\$ 87 4-Bromofluorobenzene	95	20.942	20.942	0.000	84	535400	NC	
88 1,1,2,2-Tetrachloroethane	83		21.230				ND	
90 N-Propylbenzene	91		21.283				ND	
91 4-Ethyltoluene	105		21.475				ND	
92 2-Chlorotoluene	91		21.481				ND	
94 1,3,5-Trimethylbenzene	105		21.582				ND	
96 tert-Butylbenzene	119		22.068				ND	
97 1,2,4-Trimethylbenzene	105		22.159				ND	
98 sec-Butylbenzene	105		22.388				ND	
99 4-Isopropyltoluene	119		22.586				ND	
100 1,3-Dichlorobenzene	146		22.618				ND	
101 1,4-Dichlorobenzene	146		22.751				ND	
102 Benzyl chloride	91		22.954				0	
103 n-Butylbenzene	91		23.157				0	
105 1,2-Dichlorobenzene	146		23.285				ND	
107 1,2,4-Trichlorobenzene	180		25.777				ND	
108 Hexachlorobutadiene	225		25.958				ND	
109 Naphthalene	128		26.263				0	

[QC Flag Legend](#)

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

[Reagents:](#)

ATTO15CISs_00006

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHC.i\20140915-9441.b\9441_008.D

Injection Date: 15-Sep-2014 14:45:30

Instrument ID: CHC.i

Operator ID: wrd

Lims ID: 200-24163-A-10

Lab Sample ID: 200-24163-10

Worklist Smp#: 8

Client ID: 2708

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

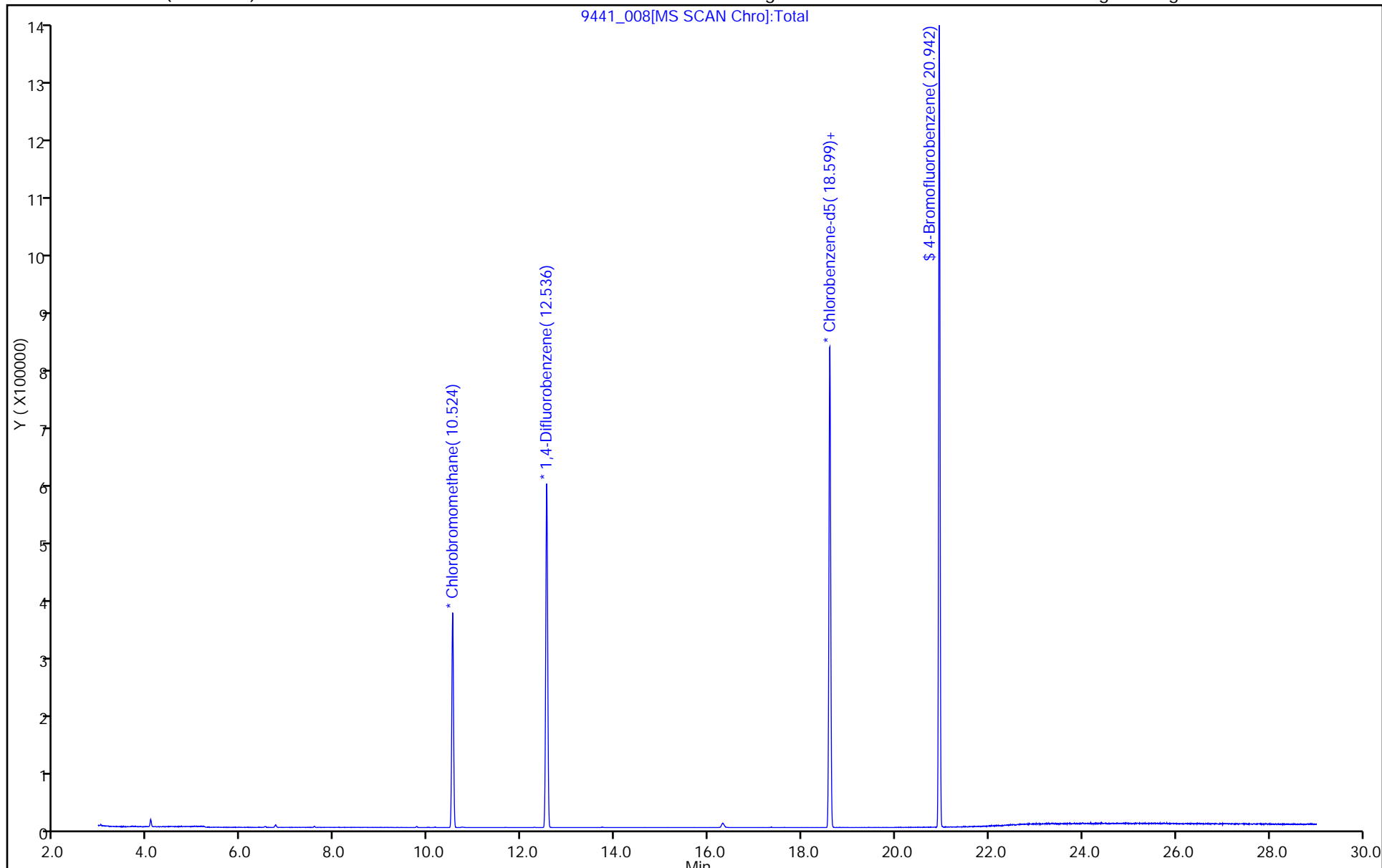
ALS Bottle#: 7

Method: TO15_LLNJ_TO3_CHC

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: 4918 Lab Sample ID: 200-24861-7
 Matrix: Air Lab File ID: 10085_16.D
 Analysis Method: TO-15 Date Collected: 10/17/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/20/2014 23:55
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U *	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.040	U	0.040	0.040
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: 4918 Lab Sample ID: 200-24861-7
 Matrix: Air Lab File ID: 10085_16.D
 Analysis Method: TO-15 Date Collected: 10/17/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/20/2014 23:55
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.040	U	0.040	0.040
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Client Sample ID: 4918 Lab Sample ID: 200-24861-7
 Matrix: Air Lab File ID: 10085_16.D
 Analysis Method: TO-15 Date Collected: 10/17/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/20/2014 23:55
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 78929 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\10085_16.D
 Lims ID: 200-24861-A-7 Lab Sample ID: 200-24861-7
 Client ID: 4918
 Sample Type: Client
 Inject. Date: 20-Oct-2014 23:55:30 ALS Bottle#: 1 Worklist Smp#: 16
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0010085-016
 Misc. Info.: 24861-07
 Operator ID: pad Instrument ID: CHG.i
 Method: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\TO15_LLNJ_TO3_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 21-Oct-2014 09:08:38 Calib Date: 30-Sep-2014 09:46:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHG.i\20140929-9732.b\9732_021.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK026

First Level Reviewer: lyonsb

Date: 21-Oct-2014 09:05:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.763				ND	
2 Dichlorodifluoromethane	85		2.833				ND	
6 Chlorodifluoromethane	51		2.886				ND	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.100				ND	
8 Chloromethane	50		3.234				ND	
9 Butane	43		3.442				ND	
10 Vinyl chloride	62		3.485				ND	
11 Butadiene	54		3.565				ND	
12 Bromomethane	94		4.266				ND	
14 Chloroethane	64		4.518				ND	
16 Vinyl bromide	106		4.924				ND	
17 Trichlorofluoromethane	101		5.037				ND	
19 Ethanol	45		5.673				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.176				ND	
24 1,1-Dichloroethene	96		6.208				ND	
25 Acetone	43		6.476				ND	
26 Carbon disulfide	76		6.588				ND	
27 Isopropyl alcohol	45		6.813				ND	
29 3-Chloro-1-propene	41		7.037				ND	
31 Methylene Chloride	49		7.342				ND	
32 2-Methyl-2-propanol	59		7.626				ND	
33 Methyl tert-butyl ether	73		7.781				ND	
34 trans-1,2-Dichloroethene	61		7.797				ND	
36 Hexane	57		8.209				ND	
37 1,1-Dichloroethane	63		8.701				ND	
38 Vinyl acetate	43		8.808				ND	
39 cis-1,2-Dichloroethene	96		9.841				ND	
40 2-Butanone (MEK)	72		9.910				ND	
42 Ethyl acetate	88		9.969				ND	
S 41 1,2-Dichloroethene, Total	61		10.200				0	
* 43 Chlorobromomethane	128	10.306	10.311	-0.005	83	511689	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
44 Tetrahydrofuran	42		10.317				ND	
45 Chloroform	83		10.451				ND	
46 Cyclohexane	84		10.681				ND	
47 1,1,1-Trichloroethane	97		10.723				ND	
48 Carbon tetrachloride	117		10.975				ND	
51 Isooctane	57		11.435				ND	
50 Benzene	78		11.446				ND	
52 1,2-Dichloroethane	62		11.633				ND	
53 n-Heptane	43		11.836				ND	
* 54 1,4-Difluorobenzene	114	12.307	12.312	-0.005	93	2703350	10.0	
56 Trichloroethene	95		12.767				ND	
58 1,2-Dichloropropane	63		13.323				ND	
59 Methyl methacrylate	69		13.532				ND	
60 1,4-Dioxane	88		13.569				ND	
61 Dibromomethane	174		13.585				ND	
62 Dichlorobromomethane	83		13.896				ND	
64 cis-1,3-Dichloropropene	75		14.880				ND	
65 4-Methyl-2-pentanone (MIBK)	43		15.206				ND	
66 Toluene	92		15.495				ND	
70 trans-1,3-Dichloropropene	75		16.121				ND	
71 1,1,2-Trichloroethane	83		16.501				ND	
72 Tetrachloroethene	166		16.608				ND	
73 2-Hexanone	43		16.988				ND	
74 Chlorodibromomethane	129		17.282				ND	
75 Ethylene Dibromide	107		17.555				ND	
* 76 Chlorobenzene-d5	117	18.470	18.475	-0.005	87	2798098	10.0	
77 Chlorobenzene	112		18.534				ND	
78 Ethylbenzene	91		18.700				ND	
80 m-Xylene & p-Xylene	106		18.957				ND	
83 o-Xylene	106		19.807				ND	
84 Styrene	104		19.855				ND	
S 82 Xylenes, Total	106		20.100				0	
85 Bromoform	173		20.273				ND	
86 Isopropylbenzene	105		20.503				ND	
* 87 4-Bromofluorobenzene	95	20.861	20.866	-0.005	96	1874685	10.0	
88 1,1,2,2-Tetrachloroethane	83		21.150				ND	
90 N-Propylbenzene	91		21.225				ND	
91 4-Ethyltoluene	105		21.417				ND	
92 2-Chlorotoluene	91		21.417				ND	
94 1,3,5-Trimethylbenzene	105		21.524				ND	
96 tert-Butylbenzene	119		22.011				ND	
97 1,2,4-Trimethylbenzene	105		22.108				ND	
98 sec-Butylbenzene	105		22.338				ND	
99 4-Isopropyltoluene	119		22.536				ND	
100 1,3-Dichlorobenzene	146		22.557				ND	
101 1,4-Dichlorobenzene	146		22.691				ND	
102 Benzyl chloride	91		22.889				ND	
103 n-Butylbenzene	91		23.103				ND	
105 1,2-Dichlorobenzene	146		23.220				ND	
107 1,2,4-Trichlorobenzene	180		25.697				ND	
108 Hexachlorobutadiene	225		25.890				ND	
109 Naphthalene	128		26.179				ND	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141020-10085.b\10085_16.D

Injection Date: 20-Oct-2014 23:55:30

Instrument ID: CHG.i

Operator ID: pad

Lims ID: 200-24861-A-7

Lab Sample ID: 200-24861-7

Worklist Smp#: 16

Client ID: 4918

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

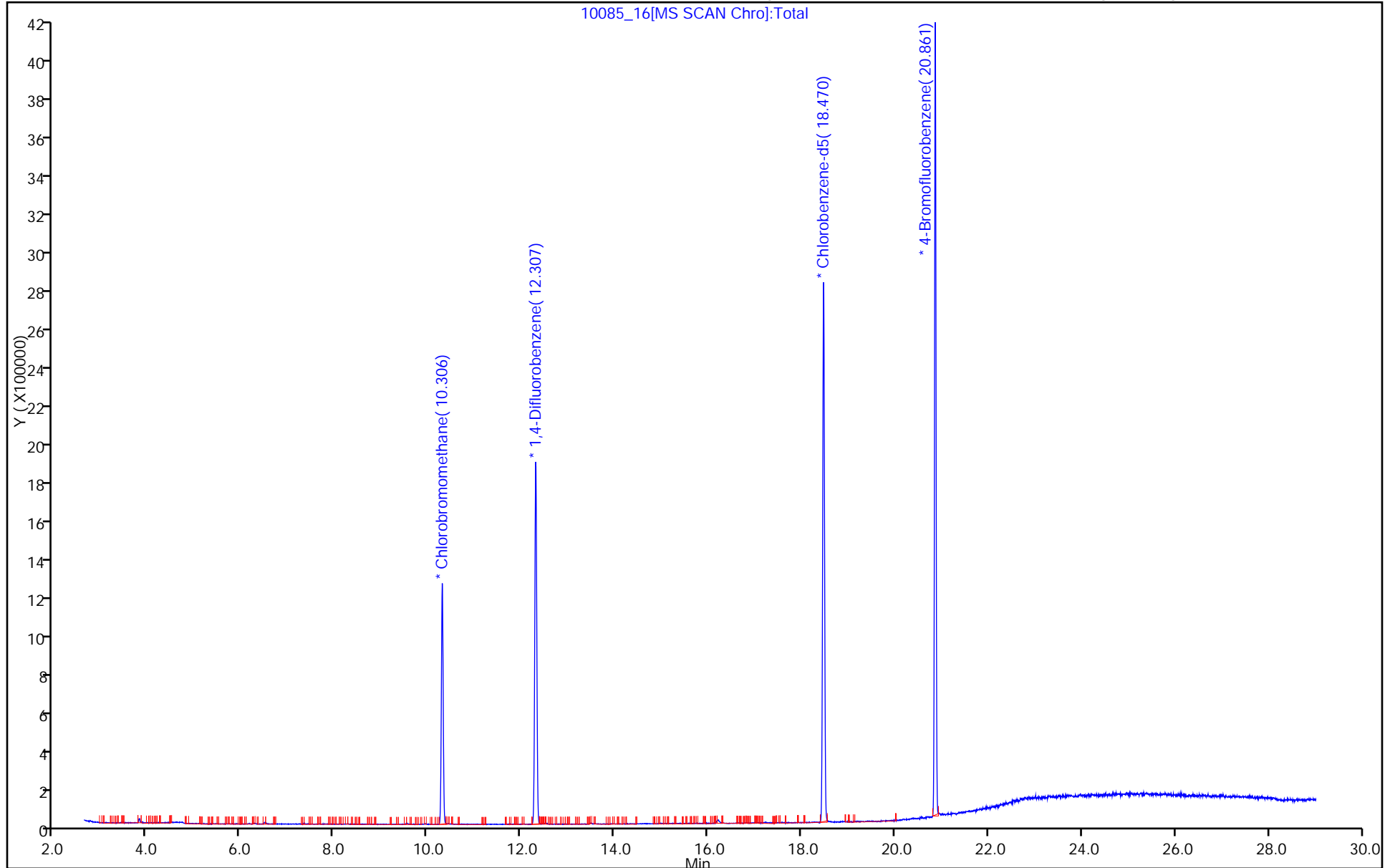
ALS Bottle#: 1

Method: TO15_LLNJ_TO3_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: 3380 Lab Sample ID: 200-24999-5
 Matrix: Air Lab File ID: 10232_24.D
 Analysis Method: TO-15 Date Collected: 10/25/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/29/2014 05:22
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U *	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.040	U	0.040	0.040
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: 3380 Lab Sample ID: 200-24999-5
 Matrix: Air Lab File ID: 10232_24.D
 Analysis Method: TO-15 Date Collected: 10/25/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/29/2014 05:22
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U *	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U *	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.040	U	0.040	0.040
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Client Sample ID: 3380 Lab Sample ID: 200-24999-5
 Matrix: Air Lab File ID: 10232_24.D
 Analysis Method: TO-15 Date Collected: 10/25/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/29/2014 05:22
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79449 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\10232_24.D
 Lims ID: 200-24999-A-5 Lab Sample ID: 200-24999-5
 Client ID: 3380
 Sample Type: Client
 Inject. Date: 29-Oct-2014 05:22:30 ALS Bottle#: 5 Worklist Smp#: 24
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0010232-024
 Misc. Info.: 24999-05
 Operator ID: wrd Instrument ID: CHG.i
 Method: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\TO15_LLNJ_TO3_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 29-Oct-2014 09:22:45 Calib Date: 30-Sep-2014 09:46:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHG.i\20140929-9732.b\9732_021.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK018

First Level Reviewer: desjardinsb

Date: 29-Oct-2014 09:22:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.763				0	
2 Dichlorodifluoromethane	85		2.838				ND	
6 Chlorodifluoromethane	51		2.891				0	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.105				ND	
8 Chloromethane	50		3.239				0	
9 Butane	43		3.442				0	
10 Vinyl chloride	62		3.485				ND	
11 Butadiene	54		3.565				0	
12 Bromomethane	94		4.266				0	
14 Chloroethane	64		4.518				ND	
16 Vinyl bromide	106		4.924				ND	
17 Trichlorofluoromethane	101		5.037				ND	
19 Ethanol	45		5.673				0	
23 1,1,2-Trichloro-1,2,2-trif	101		6.176				ND	
24 1,1-Dichloroethene	96		6.203				0	
25 Acetone	43		6.470				0	
26 Carbon disulfide	76		6.583				0	
27 Isopropyl alcohol	45		6.813				0	
29 3-Chloro-1-propene	41		7.032				0	
31 Methylene Chloride	49		7.337				0	
32 2-Methyl-2-propanol	59		7.621				ND	
33 Methyl tert-butyl ether	73		7.776				ND	
34 trans-1,2-Dichloroethene	61		7.792				ND	
36 Hexane	57		8.204				ND	
37 1,1-Dichloroethane	63		8.690				ND	
38 Vinyl acetate	43		8.797				0	
39 cis-1,2-Dichloroethene	96		9.830				0	
40 2-Butanone (MEK)	72		9.900				0	
42 Ethyl acetate	88		9.964				ND	
S 41 1,2-Dichloroethene, Total	61		10.200				0	
* 43 Chlorobromomethane	128	10.290	10.301	-0.011	85	626978	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
44 Tetrahydrofuran	42		10.311				0	
45 Chloroform	83		10.440				ND	
46 Cyclohexane	84		10.681				ND	
47 1,1,1-Trichloroethane	97		10.707				ND	
48 Carbon tetrachloride	117		10.964				ND	
51 Isooctane	57		11.424				ND	
50 Benzene	78		11.435				ND	
52 1,2-Dichloroethane	62		11.622				ND	
53 n-Heptane	43		11.825				ND	
* 54 1,4-Difluorobenzene	114	12.291	12.296	-0.005	93	3413991	10.0	
56 Trichloroethene	95		12.756				ND	
58 1,2-Dichloropropane	63		13.318				ND	
59 Methyl methacrylate	69		13.521				ND	
60 1,4-Dioxane	88		13.564				ND	
61 Dibromomethane	174		13.569				0	
62 Dichlorobromomethane	83		13.885				ND	
64 cis-1,3-Dichloropropene	75		14.864				0	
65 4-Methyl-2-pentanone (MIBK)	43		15.190				0	
66 Toluene	92		15.479				ND	
70 trans-1,3-Dichloropropene	75		16.105				0	
71 1,1,2-Trichloroethane	83		16.490				ND	
72 Tetrachloroethene	166		16.597				ND	
73 2-Hexanone	43		16.977				0	
74 Chlorodibromomethane	129		17.266				ND	
75 Ethylene Dibromide	107		17.539				ND	
* 76 Chlorobenzene-d5	117	18.454	18.459	-0.005	86	3585377	10.0	
77 Chlorobenzene	112		18.523				0	
78 Ethylbenzene	91		18.684				ND	
80 m-Xylene & p-Xylene	106		18.941				ND	
83 o-Xylene	106		19.791				ND	
84 Styrene	104		19.845				ND	
S 82 Xylenes, Total	106		20.100				0	
85 Bromoform	173		20.262				ND	
86 Isopropylbenzene	105		20.487				0	
* 87 4-Bromofluorobenzene	95	20.850	20.850	0.000	93	2466803	10.0	
88 1,1,2,2-Tetrachloroethane	83		21.139				0	
90 N-Propylbenzene	91		21.214				0	
92 2-Chlorotoluene	91		21.407				0	
91 4-Ethyltoluene	105		21.407				0	
94 1,3,5-Trimethylbenzene	105		21.514				0	
96 tert-Butylbenzene	119		22.001				0	
97 1,2,4-Trimethylbenzene	105		22.097				0	
98 sec-Butylbenzene	105		22.327				0	
99 4-Isopropyltoluene	119		22.530				0	
100 1,3-Dichlorobenzene	146		22.552				0	
101 1,4-Dichlorobenzene	146		22.685				0	
102 Benzyl chloride	91		22.878				0	
103 n-Butylbenzene	91		23.097				0	
105 1,2-Dichlorobenzene	146		23.210				0	
107 1,2,4-Trichlorobenzene	180		25.686				0	
108 Hexachlorobutadiene	225		25.874				0	
109 Naphthalene	128		26.163				0	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHG.i\20141028-10232.b\10232_24.D

Injection Date: 29-Oct-2014 05:22:30

Instrument ID: CHG.i

Operator ID: wrd

Lims ID: 200-24999-A-5

Lab Sample ID: 200-24999-5

Worklist Smp#: 24

Client ID: 3380

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

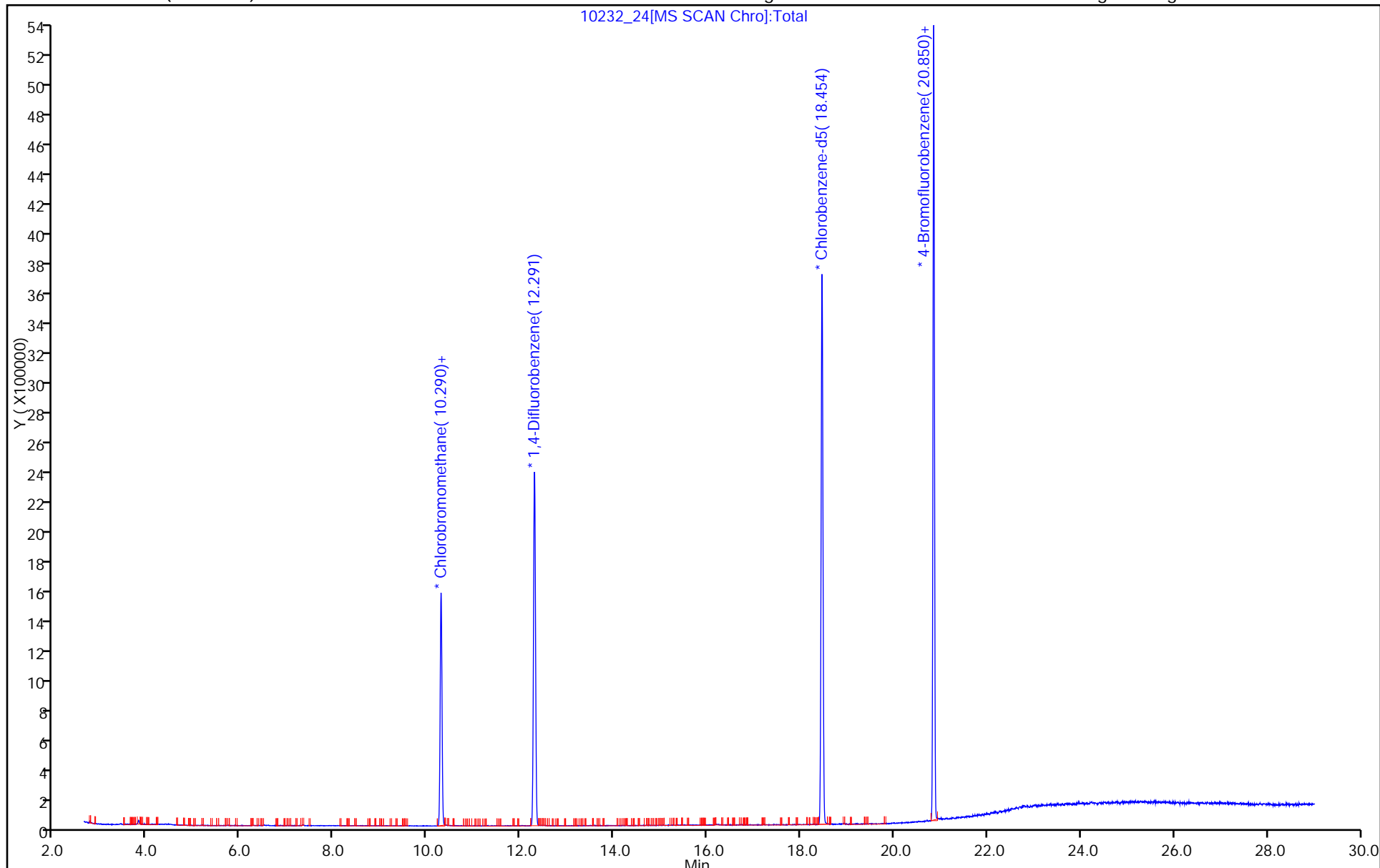
ALS Bottle#: 5

Method: TO15_LLNJ_TO3_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: 5685 Lab Sample ID: 200-25063-12
 Matrix: Air Lab File ID: 10265-006.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 12:06
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.040	U	0.040	0.040
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: 5685 Lab Sample ID: 200-25063-12
 Matrix: Air Lab File ID: 10265-006.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 12:06
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U *	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U *	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U *	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.040	U	0.040	0.040
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Client Sample ID: 5685 Lab Sample ID: 200-25063-12
 Matrix: Air Lab File ID: 10265-006.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 12:06
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-006.D
 Lims ID: 200-25063-A-12 Lab Sample ID: 200-25063-12
 Client ID: 5685
 Sample Type: Client
 Inject. Date: 30-Oct-2014 12:06:30 ALS Bottle#: 9 Worklist Smp#: 6
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0010265-006
 Misc. Info.: 25063-12
 Operator ID: wrd Instrument ID: CHX.i
 Method: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\TO15_LLNJ_TO3_CHX.i.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 30-Oct-2014 12:27:24 Calib Date: 03-Oct-2014 00:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHX.i\20141002-9815.b\9815-011.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: desjardinsb

Date: 30-Oct-2014 14:34:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.083				0	
3 Dichlorodifluoromethane	85		3.163				ND	
6 Chlorodifluoromethane	51		3.227				0	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.473				ND	
8 Chloromethane	50		3.629				0	
9 Butane	43		3.859				0	
10 Vinyl chloride	62		3.912				ND	
11 Butadiene	54		3.998				ND	
12 Bromomethane	94		4.773				ND	
13 Chloroethane	64		5.052				ND	
15 Vinyl bromide	106		5.490				ND	
16 Trichlorofluoromethane	101		5.608				ND	
20 Ethanol	45		6.320				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.844				ND	
24 1,1-Dichloroethene	96		6.881				ND	
25 Acetone	43		7.192				0	
26 Carbon disulfide	76		7.299				0	
27 Isopropyl alcohol	45		7.545				ND	
29 3-Chloro-1-propene	41		7.796				ND	
31 Methylene Chloride	49		8.133				0	
32 2-Methyl-2-propanol	59		8.417				ND	
33 Methyl tert-butyl ether	73		8.588				ND	
34 trans-1,2-Dichloroethene	61		8.620				ND	
36 Hexane	57		9.064				0	
37 1,1-Dichloroethane	63		9.652				ND	
38 Vinyl acetate	43		9.765				ND	
S 39 1,2-Dichloroethene, Total	61		10.000				0	
40 cis-1,2-Dichloroethene	96		10.974				ND	
42 2-Butanone (MEK)	72		11.054				ND	
43 Ethyl acetate	88		11.102				ND	
45 Tetrahydrofuran	42		11.519				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 44 Chlorobromomethane	128	11.525	11.530	-0.005	91	346418	10.0	
46 Chloroform	83		11.696				ND	
47 Cyclohexane	84		11.942				ND	
48 1,1,1-Trichloroethane	97		12.001				ND	
49 Carbon tetrachloride	117		12.295				ND	
51 Isooctane	57		12.830				ND	
52 Benzene	78		12.878				0	
53 1,2-Dichloroethane	62		13.119				ND	
54 n-Heptane	43		13.317				0	
* 55 1,4-Difluorobenzene	114	13.922	13.921	0.001	93	1934000	10.0	
57 Trichloroethene	95		14.456				ND	
59 1,2-Dichloropropane	63		15.125				ND	
60 Methyl methacrylate	69		15.328				ND	
61 1,4-Dioxane	88		15.377				ND	
62 Dibromomethane	174		15.419				0	
63 Dichlorobromomethane	83		15.762				ND	
66 cis-1,3-Dichloropropene	75		16.837				ND	
67 4-Methyl-2-pentanone (MIBK)	43		17.179				ND	
68 Toluene	92		17.500				0	
70 trans-1,3-Dichloropropene	75		18.201				ND	
71 1,1,2-Trichloroethane	83		18.629				ND	
72 Tetrachloroethene	166		18.720				ND	
41 2-Hexanone	43		19.148				ND	
73 Chlorodibromomethane	129		19.490				ND	
74 Ethylene Dibromide	107		19.801				ND	
S 81 Xylenes, Total	106		20.000				0	
* 75 Chlorobenzene-d5	117	20.828	20.828	0.000	85	1778531	10.0	
76 Chlorobenzene	112		20.897				ND	
77 Ethylbenzene	91		21.074				ND	
80 m-Xylene & p-Xylene	106		21.363				ND	
82 o-Xylene	106		22.331				ND	
83 Styrene	104		22.395				ND	
84 Bromoform	173		22.888				ND	
85 Isopropylbenzene	105		23.128				ND	
* 109 4-Bromofluorobenzene	95	23.546	23.546	0.000	94	1236495	10.0	
86 1,1,2,2-Tetrachloroethane	83		23.877				ND	
87 N-Propylbenzene	91		23.941				ND	
90 4-Ethyltoluene	105		24.155				0	
91 2-Chlorotoluene	91		24.161				ND	
92 1,3,5-Trimethylbenzene	105		24.273				0	
94 tert-Butylbenzene	119		24.813				ND	
95 1,2,4-Trimethylbenzene	105		24.915				0	
96 sec-Butylbenzene	105		25.167				ND	
97 4-Isopropyltoluene	119		25.386				ND	
98 1,3-Dichlorobenzene	146		25.413				0	
99 1,4-Dichlorobenzene	146		25.562				0	
100 Benzyl chloride	91		25.792				0	
101 n-Butylbenzene	91		26.022				0	
103 1,2-Dichlorobenzene	146		26.156				0	
105 1,2,4-Trichlorobenzene	180		28.938				ND	
106 Hexachlorobutadiene	225		29.141				ND	
107 Naphthalene	128		29.489				0	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-006.D

Injection Date: 30-Oct-2014 12:06:30

Instrument ID: CHX.i

Operator ID: wrd

Lims ID: 200-25063-A-12

Lab Sample ID: 200-25063-12

Worklist Smp#: 6

Client ID: 5685

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

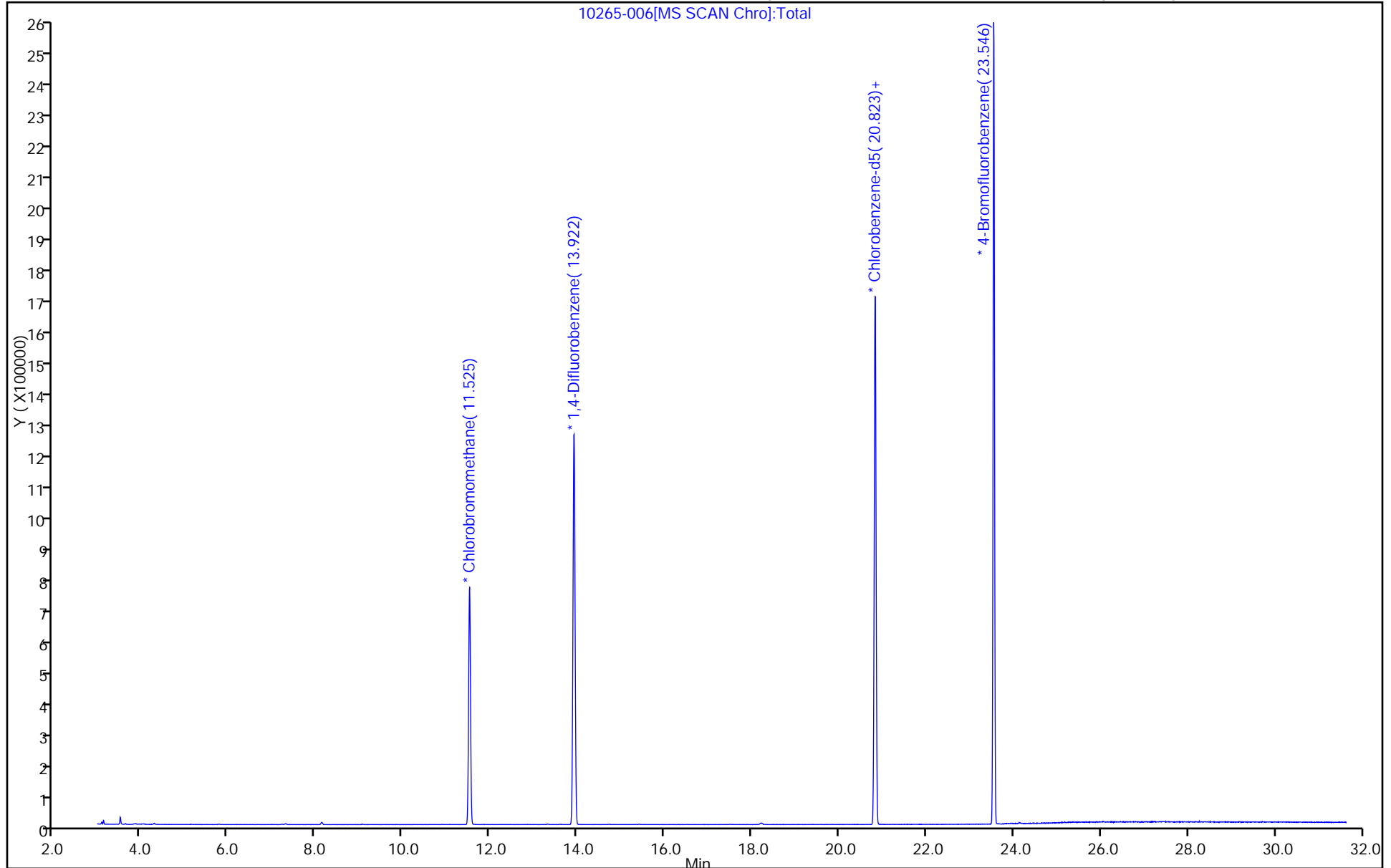
ALS Bottle#: 9

Method: TO15_LLNJ_TO3_CHX.i.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: 3508 Lab Sample ID: 200-25068-9
 Matrix: Air Lab File ID: 10265-013.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 18:26
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32(mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.040	U	0.040	0.040
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: 3508 Lab Sample ID: 200-25068-9
 Matrix: Air Lab File ID: 10265-013.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 18:26
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U *	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U *	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U *	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.040	U	0.040	0.040
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Client Sample ID: 3508 Lab Sample ID: 200-25068-9
 Matrix: Air Lab File ID: 10265-013.D
 Analysis Method: TO-15 Date Collected: 10/29/2014 00:00
 Sample wt/vol: 1000(mL) Date Analyzed: 10/30/2014 18:26
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 79579 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-013.D
 Lims ID: 200-25068-A-9 Lab Sample ID: 200-25068-9
 Client ID: 3508
 Sample Type: Client
 Inject. Date: 30-Oct-2014 18:26:30 ALS Bottle#: 10 Worklist Smp#: 13
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0010265-013
 Misc. Info.: 25068-9
 Operator ID: wrd Instrument ID: CHX.i
 Method: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\TO15_LLNJ_TO3_CHX.i.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 31-Oct-2014 04:53:12 Calib Date: 03-Oct-2014 00:02:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\BTV-LIMS1\ChromData\CHX.i\20141002-9815.b\9815-011.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: desjardinsb

Date: 31-Oct-2014 07:42:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.083				0	
3 Dichlorodifluoromethane	85		3.163				0	
6 Chlorodifluoromethane	51		3.227				0	
7 1,2-Dichloro-1,1,2,2-tetra	85		3.473				ND	
8 Chloromethane	50		3.629				0	
9 Butane	43		3.859				0	
10 Vinyl chloride	62		3.912				ND	
11 Butadiene	54		3.998				ND	
12 Bromomethane	94		4.773				ND	
13 Chloroethane	64		5.052				ND	
15 Vinyl bromide	106		5.490				ND	
16 Trichlorofluoromethane	101		5.608				ND	
20 Ethanol	45		6.320				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		6.844				ND	
24 1,1-Dichloroethene	96		6.881				ND	
25 Acetone	43		7.192				0	
26 Carbon disulfide	76		7.299				0	
27 Isopropyl alcohol	45		7.545				ND	
29 3-Chloro-1-propene	41		7.796				ND	
31 Methylene Chloride	49	8.138	8.133	0.005	90	6364	0.2262	
32 2-Methyl-2-propanol	59		8.417				ND	
33 Methyl tert-butyl ether	73		8.588				ND	
34 trans-1,2-Dichloroethene	61		8.620				ND	
36 Hexane	57		9.064				ND	
37 1,1-Dichloroethane	63		9.652				ND	
38 Vinyl acetate	43		9.765				ND	
S 39 1,2-Dichloroethene, Total	61		10.000				0	
40 cis-1,2-Dichloroethene	96		10.974				ND	
42 2-Butanone (MEK)	72		11.054				ND	
43 Ethyl acetate	88		11.102				ND	
45 Tetrahydrofuran	42		11.519				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 44 Chlorobromomethane	128	11.525	11.530	-0.005	91	312431	10.0	
46 Chloroform	83		11.696				ND	
47 Cyclohexane	84		11.942				ND	
48 1,1,1-Trichloroethane	97		12.001				ND	
49 Carbon tetrachloride	117		12.295				ND	
51 Isooctane	57		12.830				ND	
52 Benzene	78		12.878				0	
53 1,2-Dichloroethane	62		13.119				ND	
54 n-Heptane	43		13.317				ND	
* 55 1,4-Difluorobenzene	114	13.921	13.921	0.000	94	1700950	10.0	
57 Trichloroethene	95		14.456				ND	
59 1,2-Dichloropropane	63		15.125				ND	
60 Methyl methacrylate	69		15.328				ND	
61 1,4-Dioxane	88		15.377				ND	
62 Dibromomethane	174		15.419				0	
63 Dichlorobromomethane	83		15.762				ND	
66 cis-1,3-Dichloropropene	75		16.837				ND	
67 4-Methyl-2-pentanone (MIBK)	43		17.179				ND	
68 Toluene	92		17.500				0	
70 trans-1,3-Dichloropropene	75		18.201				0	
71 1,1,2-Trichloroethane	83		18.629				ND	
72 Tetrachloroethene	166		18.720				ND	
41 2-Hexanone	43		19.148				ND	
73 Chlorodibromomethane	129		19.490				ND	
74 Ethylene Dibromide	107		19.801				ND	
S 81 Xylenes, Total	106		20.000				0	
* 75 Chlorobenzene-d5	117	20.828	20.828	0.000	85	1575342	10.0	
76 Chlorobenzene	112		20.897				ND	
77 Ethylbenzene	91		21.074				0	
80 m-Xylene & p-Xylene	106		21.363				ND	
82 o-Xylene	106		22.331				ND	
83 Styrene	104		22.395				ND	
84 Bromoform	173		22.888				ND	
85 Isopropylbenzene	105		23.128				ND	
* 109 4-Bromofluorobenzene	95	23.546	23.546	0.000	94	1102966	10.0	
86 1,1,2,2-Tetrachloroethane	83		23.877				ND	
87 N-Propylbenzene	91		23.941				ND	
90 4-Ethyltoluene	105		24.155				ND	
91 2-Chlorotoluene	91		24.161				ND	
92 1,3,5-Trimethylbenzene	105		24.273				ND	
94 tert-Butylbenzene	119		24.813				ND	
95 1,2,4-Trimethylbenzene	105		24.915				ND	
96 sec-Butylbenzene	105		25.167				ND	
97 4-Isopropyltoluene	119		25.386				ND	
98 1,3-Dichlorobenzene	146		25.413				0	
99 1,4-Dichlorobenzene	146		25.562				0	
100 Benzyl chloride	91		25.792				0	
101 n-Butylbenzene	91		26.022				0	
103 1,2-Dichlorobenzene	146		26.156				ND	
105 1,2,4-Trichlorobenzene	180		28.938				ND	
106 Hexachlorobutadiene	225		29.141				ND	
107 Naphthalene	128		29.489				ND	

[QC Flag Legend](#)

Processing Flags

ND - Not Detected or Marked ND

[Reagents:](#)

ATTO15GIS_00009

Amount Added: 20.00

Units: mL

Run Reagent

TestAmerica Burlington

Data File: \\BTV-LIMS1\ChromData\CHX.i\20141030-10265.b\10265-013.D

Injection Date: 30-Oct-2014 18:26:30

Instrument ID: CHX.i

Operator ID: wrd

Lims ID: 200-25068-A-9

Lab Sample ID: 200-25068-9

Worklist Smp#: 13

Client ID: 3508

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

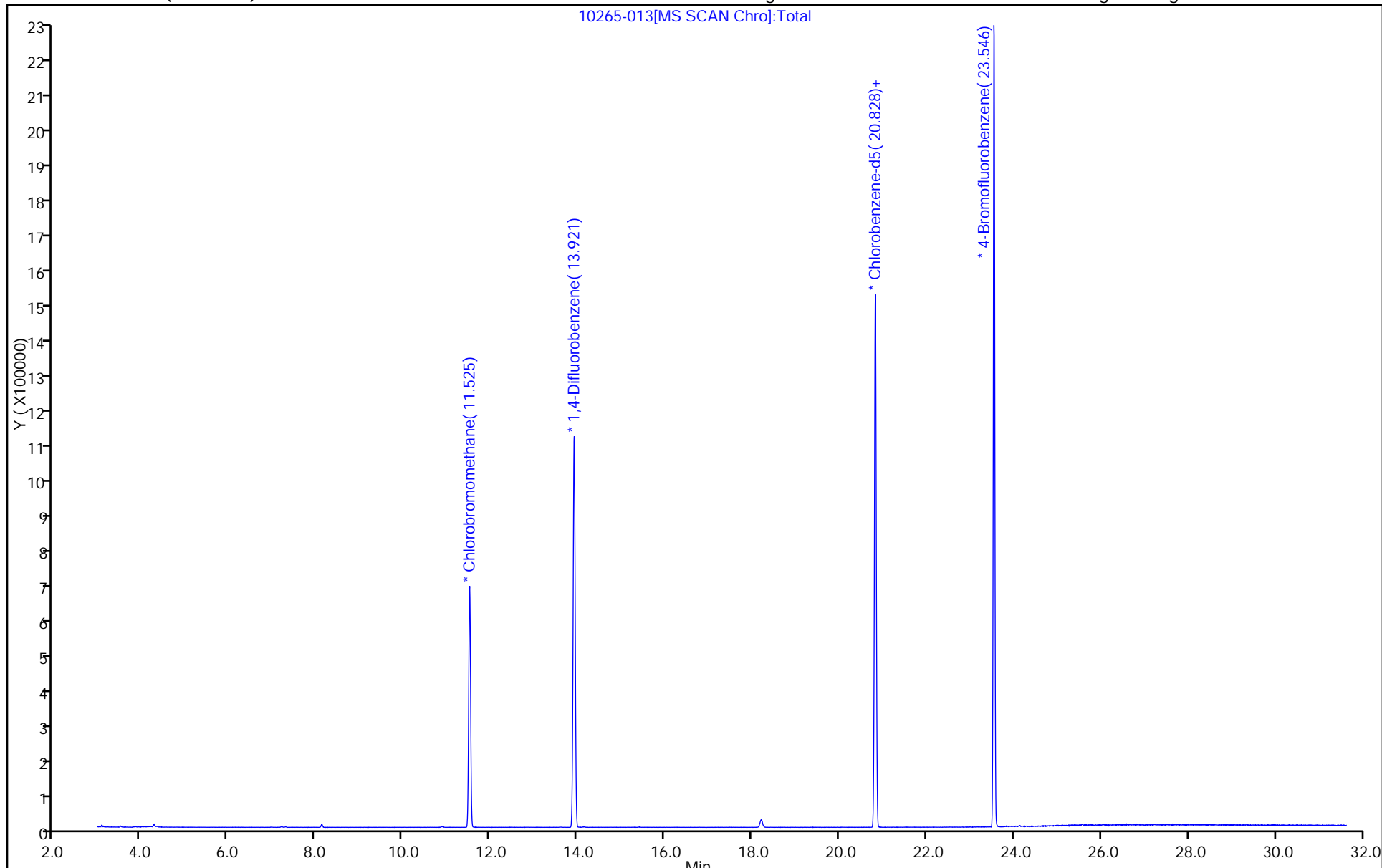
ALS Bottle#: 10

Method: TO15_LLNJ_TO3_CHX.i.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

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



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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-76115/3	9029_003.D
Level 2	IC 200-76115/4	9029_004.D
Level 3	IC 200-76115/5	9029_005.D
Level 4	IC 200-76115/6	9029_006.D
Level 5	ICIS 200-76115/7	9029_007.D
Level 6	IC 200-76115/8	9029_008.D
Level 7	IC 200-76115/9	9029_009.D
Level 8	IC 200-76115/10	9029_010.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 8													
Propylene	++++ 0.5690	++++ 0.5367	0.6765 0.4831	0.5776	0.5884	Ave		0.5719			11.0		30.0				
Dichlorodifluoromethane	++++ 3.8393	++++ 3.6152	4.0781 2.9225	4.1984	4.1001	Ave		3.7923			13.0		30.0				
Freon 22	++++ 1.6769	++++ 1.6077	1.7649 1.4143	1.7797	1.7525	Ave		1.6660			8.4		30.0				
1,2-Dichlorotetrafluoroethane	++++ 3.2859	2.8898 3.1930	3.3076 2.7677	3.3586	3.4118	Ave		3.1735			7.8		30.0				
Chloromethane	++++ 0.7940	++++ 0.7645	0.8467 0.6918	0.7894	0.8077	Ave		0.7823			6.6		30.0				
n-Butane	++++ 1.2215	++++ 1.1884	1.2543 1.0810	1.2188	1.2606	Ave		1.2041			5.5		30.0				
Vinyl chloride	1.0037 1.0389	0.8908 1.0351	1.0324 0.9543	1.0013	1.0510	Ave		1.0009			5.4		30.0				
1,3-Butadiene	++++ 0.7283	0.5159 0.7118	0.6742 0.6657	0.6941	0.7321	Ave		0.6746			11.0		30.0				
Bromomethane	++++ 1.0720	1.0341 1.0651	1.0874 0.9901	1.0900	1.0930	Ave		1.0617			3.5		30.0				
Chloroethane	++++ 0.4586	++++ 0.4579	0.4908 0.4381	0.4552	0.4718	Ave		0.4621			3.8		30.0				
Isopentane	++++ 0.7621	1.1097 0.7594	0.9306 0.6996	0.8044	0.7908	Ave		0.8366			17.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 1.0158	0.9948 0.9906	1.0220 0.9196	1.0743	1.0625	Ave		1.0114			5.1		30.0				
Trichlorofluoromethane	++++ 3.4364	3.2251 3.3095	3.7380 2.9684	3.7987	3.6642	Ave		3.4486			8.8		30.0				
n-Pentane	++++ 1.0747	++++ 1.0531	1.1283 0.9752	1.1188	1.1301	Ave		1.0800			5.6		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.2351	++++ 0.2103	0.2211 0.1884	0.2420	0.2008	Ave		0.2163			9.5		30.0				
Ethyl ether	++++ 0.5407	0.4063 0.5365	0.5512 0.5101	0.5601	0.5645	Ave		0.5242			10.0		30.0				
Acrolein	++++ 0.2258	++++ 0.2295	++++ 0.2264	0.2313	0.2380	Ave		0.2302			2.1		30.0				
Freon TF	++++ 2.0496	1.8478 2.0144	2.1030 1.8939	2.1641	2.1407	Ave		2.0305			6.0		30.0				
1,1-Dichloroethene	++++ 0.9254	0.7797 0.9131	0.9098 0.8792	0.9450	0.9355	Ave		0.8983			6.3		30.0				
Acetone	++++ 1.3752	++++ 1.3140	++++ 1.1553	1.4766	1.5224	Ave		1.3687			11.0		30.0				
Carbon disulfide	++++ 2.3187	++++ 2.3174	2.3879 2.1282	2.4303	2.4156	Ave		2.3330			4.8		30.0				
Isopropyl alcohol	++++ 1.0258	++++ 0.8735	++++ 0.8343	1.0848	0.8481	Ave		0.9333			12.0		30.0				
3-Chloropropene	++++ 0.8682	0.7525 0.8343	0.8835 0.7811	0.9199	0.8977	Ave		0.8482			7.3		30.0				
Acetonitrile	++++ 0.4637	++++ 0.4336	++++ 0.4120	0.4930	0.4528	Ave		0.4510			6.8		30.0				
Methylene Chloride	++++ 0.8878	++++ 0.8733	1.1108 0.8003	0.9728	0.9414	Ave		0.9311			11.0		30.0				
tert-Butyl alcohol	++++ 1.9191	++++ 1.7050	++++ 1.6446	2.0030	1.7084	Ave		1.7960			8.7		30.0				
Methyl tert-butyl ether	++++ 3.0111	2.6653 2.9482	3.0397 2.7135	3.1321	3.1139	Ave		2.9462			6.3		30.0				
trans-1,2-Dichloroethene	++++ 1.3510	1.1679 1.3251	1.3882 1.2412	1.4202	1.4084	Ave		1.3288			7.0		30.0				
Acrylonitrile	++++ 0.5167	++++ 0.5021	0.4554 0.4813	0.5294	0.5178	Ave		0.5004			5.5		30.0				
n-Hexane	++++ 1.1381	0.8980 1.1146	1.1958 1.0444	1.1755	1.1813	Ave		1.1068			9.5		30.0				
1,1-Dichloroethane	1.3561 1.6814	1.5126 1.6483	1.7262 1.5337	1.7643	1.7246	Ave		1.6184			8.6		30.0				
Vinyl acetate	++++ 1.9753	++++ 1.9253	++++ 1.7878	2.0572	2.0768	Ave		1.9645			5.9		30.0				
cis-1,2-Dichloroethene	++++ 1.0532	0.9876 1.0314	1.0586 0.9882	1.0537	1.0633	Ave		1.0337			3.2		30.0				
Methyl Ethyl Ketone	++++ 0.4425	++++ 0.4189	0.4209 0.4062	0.4386	0.4275	Ave		0.4258			3.2		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0790	++++ 0.0773	++++ 0.0743	0.0796	0.0772	Ave		0.0775			2.6		30.0				
Tetrahydrofuran	++++ 0.1683	++++ 0.1603	++++ 0.1516	0.1782	0.1737	Ave		0.1664			6.4		30.0				
Chloroform	++++ 2.5616	2.3078 2.4809	2.5526 2.2902	2.6545	2.6354	Ave		2.4976			5.9		30.0				
Cyclohexane	++++ 0.2727	0.2266 0.2692	0.2743 0.2618	0.2717	0.2781	Ave		0.2649			6.7		30.0				
1,1,1-Trichloroethane	++++ 0.6772	0.6215 0.6540	0.6905 0.6035	0.7162	0.7142	Ave		0.6682			6.6		30.0				
Carbon tetrachloride	0.6560 0.7465	0.6227 0.7239	0.7366 0.6678	0.7887	0.7862	Ave		0.7160			8.6		30.0				
2,2,4-Trimethylpentane	++++ 0.8606	0.7934 0.8397	0.8733 0.7818	0.8890	0.8966	Ave		0.8478			5.3		30.0				
Benzene	++++ 0.5996	0.5517 0.5885	0.5997 0.5610	0.6090	0.6190	Ave		0.5898			4.2		30.0				
1,2-Dichloroethane	++++ 0.4388	0.4076 0.4258	0.4494 0.3927	0.4797	0.4699	Ave		0.4377			7.2		30.0				
n-Heptane	++++ 0.3018	0.2797 0.2930	0.3124 0.2727	0.3191	0.3223	Ave		0.3001			6.4		30.0				
n-Butanol	++++ 0.1009	++++ 0.0870	++++ 0.0870	0.1025	0.0829	Ave		0.0921			9.8		30.0				
Trichloroethene	0.2250 0.3377	0.2898 0.3350	0.3232 0.3228	0.3361	0.3438	Ave		0.3142			13.0		30.0				
1,2-Dichloropropane	++++ 0.2260	0.1964 0.2228	0.2291 0.2130	0.2313	0.2336	Ave		0.2217			5.9		30.0				
Methyl methacrylate	++++ 0.2379	++++ 0.2345	0.1986 0.2249	0.2314	0.2380	Ave		0.2275			6.6		30.0				
1,4-Dioxane	++++ 0.1053	++++ 0.0873	++++ 0.0918	0.1087	0.0825	Ave		0.0951			12.0		30.0				
Dibromomethane	++++ 0.3154	0.2410 0.3167	0.2806 0.3181	0.2984	0.3136	Ave		0.2977			9.6		30.0				
Bromodichloromethane	++++ 0.7014	0.5773 0.6879	0.6309 0.6445	0.7117	0.7289	Ave		0.6689			8.0		30.0				
cis-1,3-Dichloropropene	++++ 0.4278	0.3423 0.4237	0.3648 0.4014	0.4257	0.4351	Ave		0.4030			8.9		30.0				
methyl isobutyl ketone	++++ 0.4963	++++ 0.4746	0.4741 0.4407	0.5355	0.5396	Ave		0.4935			7.8		30.0				
Toluene	++++ 0.4815	++++ 0.4320	0.4931 0.4526	0.4903	0.4933	Ave		0.4748			5.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Octane	++++ 0.4763	0.4239 0.4557	0.4918 0.4180	0.5169	0.5133	Ave		0.4709			8.5		30.0				
trans-1,3-Dichloropropene	++++ 0.5138	0.4019 0.5067	0.4488 0.4781	0.5085	0.5319	Ave		0.4842			9.4		30.0				
1,1,2-Trichloroethane	++++ 0.2524	0.2309 0.2509	0.2526 0.2398	0.2574	0.2596	Ave		0.2491			4.1		30.0				
Tetrachloroethene	0.4411 0.4605	0.3930 0.4673	0.4334 0.4597	0.4533	0.4622	Ave		0.4463			5.5		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.4976	++++ 0.4710	0.5057 0.4254	0.5611	0.5307	Ave		0.4986			9.5		30.0				
Dibromochloromethane	++++ 0.6953	0.4903 0.6952	0.5430 0.6567	0.6783	0.6992	Ave		0.6368			13.0		30.0				
1,2-Dibromoethane	++++ 0.5191	0.4100 0.5169	0.4734 0.4980	0.5129	0.5261	Ave		0.4938			8.3		30.0				
Chlorobenzene	++++ 0.6884	0.6212 0.6896	0.6708 0.6512	0.6847	0.6992	Ave		0.6722			4.1		30.0				
Ethylbenzene	++++ 1.1961	1.1106 1.1646	1.1857 1.0211	1.2315	1.2351	Ave		1.1635			6.5		30.0				
n-Nonane	++++ 0.4891	0.4278 0.4774	0.5063 0.4399	0.5247	0.5144	Ave		0.4828			7.7		30.0				
m,p-Xylene	++++ 0.4574	0.4125 0.4558	0.4233 0.4284	0.4660	0.4670	Ave		0.4443			5.0		30.0				
Xylene, o-	++++ 0.4589	0.3678 0.4550	0.4154 0.4400	0.4572	0.4684	Ave		0.4375			8.1		30.0				
Styrene	++++ 0.7203	0.5206 0.7194	0.5803 0.6784	0.7136	0.7328	Ave		0.6665			12.0		30.0				
Bromoform	++++ 0.7320	0.4029 0.7325	0.5191 0.7004	0.7062	0.7406	Ave		0.6477			20.0		30.0				
Cumene	++++ 1.4153	1.1373 1.3729	1.3162 1.1485	1.4856	1.4818	Ave		1.3368			11.0		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.6944	0.5885 0.6819	0.6580 0.6263	0.7230	0.7261	Ave		0.6712			7.5		30.0				
n-Propylbenzene	++++ 1.6877	1.5114 1.5991	1.6601 1.2404	1.8291	1.8063	Ave		1.6191			12.0		30.0				
1,2,3-Trichloropropane	++++ 0.6298	++++ 0.6124	0.6261 0.5596	0.6777	0.6638	Ave		0.6282			6.6		30.0				
n-Decane	++++ 0.6668	++++ 0.6456	0.6655 0.5869	0.7254	0.7113	Ave		0.6669			7.4		30.0				
4-Ethyltoluene	++++ 1.4915	1.2378 1.4313	1.3737 1.1557	1.5315	1.5533	Ave		1.3964			11.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 1.3238	1.2182 1.2769	1.2948 1.0502	1.4141	1.4077	Ave		1.2837			9.7		30.0				
1,3,5-Trimethylbenzene	++++ 1.2778	1.0104 1.2375	1.1747 1.0219	1.3536	1.3428	Ave		1.2027			12.0		30.0				
Alpha Methyl Styrene	++++ 0.6084	0.4073 0.6051	0.4367 0.5814	0.5991	0.6057	Ave		0.5491			16.0		30.0				
tert-Butylbenzene	++++ 1.2293	0.9754 1.1942	1.0921 1.0176	1.3025	1.2896	Ave		1.1572			11.0		30.0				
1,2,4-Trimethylbenzene	++++ 1.3025	1.0167 1.2500	1.1583 1.0188	1.4056	1.3865	Ave		1.2198			13.0		30.0				
sec-Butylbenzene	++++ 1.7119	1.4353 1.6215	1.6033 1.2406	1.9050	1.8352	Ave		1.6218			14.0		30.0				
4-Isopropyltoluene	++++ 1.5796	1.1755 1.5126	1.3948 1.1727	1.7007	1.6714	Ave		1.4582			15.0		30.0				
1,3-Dichlorobenzene	++++ 0.8954	0.7663 0.9011	0.7629 0.8106	0.8924	0.9218	Ave		0.8501			8.0		30.0				
1,4-Dichlorobenzene	++++ 0.8984	0.7851 0.8999	0.7415 0.7980	0.8995	0.9170	Ave		0.8485			8.4		30.0				
Benzyl chloride	++++ 1.1358	0.9043 1.1094	0.9679 0.9140	1.1790	1.1983	Ave		1.0584			12.0		30.0				
n-Butylbenzene	++++ 1.5002	1.2863 1.4225	1.3896 1.0957	1.6322	1.6025	Ave		1.4184			13.0		30.0				
n-Undecane	++++ 0.7840	++++ 0.7607	++++ 0.6606	0.8844	0.8488	Ave		0.7877			11.0		30.0				
1,2-Dichlorobenzene	++++ 0.8423	0.6640 0.8480	0.7094 0.7721	0.8425	0.8692	Ave		0.7925			10.0		30.0				
n-Dodecane	++++ 0.8240	++++ 0.8168	++++ 0.6875	0.8546	0.9124	Ave		0.8191			10.0		30.0				
1,2,4-Trichlorobenzene	++++ 0.7704	++++ 0.8130	0.5721 0.7387	0.6634	0.8010	Ave		0.7264			13.0		30.0				
Hexachlorobutadiene	++++ 0.8226	0.5567 0.8387	0.6237 0.7793	0.8009	0.8577	Ave		0.7542			15.0		30.0				
Naphthalene	++++ 1.4614	++++ 1.5462	1.1266 1.2102	1.2059	1.5638	Ave		1.3524			14.0		30.0				
1,2,3-Trichlorobenzene	++++ 0.7125	0.4718 0.7554	0.5121 0.6939	0.5897	0.7475	Ave		0.6404			18.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-76115/3	9029_003.D
Level 2	IC 200-76115/4	9029_004.D
Level 3	IC 200-76115/5	9029_005.D
Level 4	IC 200-76115/6	9029_006.D
Level 5	ICIS 200-76115/7	9029_007.D
Level 6	IC 200-76115/8	9029_008.D
Level 7	IC 200-76115/9	9029_009.D
Level 8	IC 200-76115/10	9029_010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Propylene	BCM	Ave	++++ 124694	++++ 168621	4161 336660	34576	76733	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 841313	++++ 1135832	25083 2036756	251338	534687	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 367466	++++ 505125	10855 985667	106539	228537	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 720036	7646 1003178	20344 1928871	201061	444917	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 173983	++++ 240200	5208 482138	47255	105324	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 267676	++++ 373372	7715 753408	72962	164389	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	601 227646	2357 325206	6350 665079	59945	137062	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	++++ 159603	1365 223646	4147 463975	41552	95475	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 234917	2736 334629	6688 690016	65254	142540	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 100491	++++ 143861	3019 305314	27249	61529	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 166996	2936 238586	5724 487575	48155	103121	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 222592	2632 311240	6286 640924	64315	138555	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 753014	8533 1039800	22991 2068774	227408	477830	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 235505	++++ 330876	6940 679628	66977	147374	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 68845	++++ 132185	13615 328230	28997	39291	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 118494	1075 168556	3390 355497	33532	73620	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 49469	++++ 72116	++++ 157813	13849	31043	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 449132	4889 632880	12935 1319893	129556	279162	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	++++ 202785	++++ 286872	5596 612737	56575	121999	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 301356	++++ 412839	++++ 805132	88399	198531	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 508094	++++ 728098	++++ 1483174	145488	315007	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 224776	++++ 274449	++++ 581469	64942	110594	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 190243	++++ 262133	1991 544348	55070	117068	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 101609	++++ 136242	++++ 287166	29511	59044	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 194552	++++ 274388	++++ 6832 557769	58239	122759	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	++++ 420540	++++ 535673	++++ 1146168	119908	222789	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 659819	++++ 926277	7052 18696 1891095	187504	406067	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 296041	++++ 416311	3090 8538 865015	85020	183670	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 113216	++++ 157761	++++ 335403	2801 31690	67519	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 249384	++++ 350179	2376 7355 727848	70374	154049	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	812 368442	4002 517873	10617 1068878	105620	224895	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 432846	++++ 604908	++++ 1245975	123154	270825	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	++++ 230779	++++ 324058	2613 6511 688668	63078	138667	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 96965	++++ 131612	++++ 2589 283121	26259	55747	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 17322	++++ 24290	++++ 51811	4764	10069	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFB	Ave	++++ 170227	++++ 233376	++++ 487608	48591	102822	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 561319	6106 779452	15700 1596086	158911	343673	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFB	Ave	++++ 275879	2754 391855	7651 842035	74064	164568	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFB	Ave	++++ 684972	7555 952113	19262 1941230	195258	422701	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFB	Ave	1805 755072	7570 1053824	20550 2147772	215008	465262	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFB	Ave	++++ 870475	9645 1222425	24364 2514439	242359	530591	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFB	Ave	++++ 606507	6706 856773	16731 1804508	166022	366351	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFB	Ave	++++ 443821	4955 619849	12536 1262979	130772	278098	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFB	Ave	++++ 305325	3400 426538	8714 876958	87005	190734	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFB	Ave	++++ 102108	++++ 126726	++++ 279738	27954	49051	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFB	Ave	619 341575	3523 487640	9015 1038245	91636	203463	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFB	Ave	++++ 228589	2388 324329	6390 684963	63069	138267	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFB	Ave	++++ 240689	++++ 341406	5539 723400	63083	140841	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFB	Ave	++++ 106506	++++ 127026	++++ 295364	29628	48802	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dibromomethane	DFB	Ave	++++ 319042	2929 461019	7827 1023225	81353	185597	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromodichloromethane	DFB	Ave	++++ 709508	7018 1001476	17600 2072871	194013	431342	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFB	Ave	++++ 432780	4161 616851	10177 1290966	116052	257501	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
methyl isobutyl ketone	DFB	Ave	++++ 501973	++++ 690982	13225 1417461	145989	319343	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Toluene	CBZ	Ave	++++ 493972	4933 710925	13081 1512707	130451	296198	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Octane	DFB	Ave	++++ 481809	5153 663484	13719 1344468	140925	303797	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFB	Ave	++++ 519689	4885 737723	12521 1537839	138622	314798	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBZ	Ave	++++ 258965	2637 371136	6700 801653	68470	155897	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington

Job No.: 200-24163-1

Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29

Calibration End Date: 08/15/2014 16:40

Calibration ID: 27711

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Tetrachloroethene	CBZ	Ave	1150 472440	4487 691072	11497 1536401	120602	277569	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	++++ 510510	++++ 696634	13415 1421791	149274	318670	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBZ	Ave	++++ 713264	5598 1028135	14404 2195074	180457	419885	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBZ	Ave	++++ 532502	4682 764432	12558 1664734	136445	315906	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBZ	Ave	++++ 706192	7093 1019959	17793 2176709	182176	419856	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBZ	Ave	++++ 1226995	12681 1722501	31451 3412936	327627	741689	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBZ	Ave	++++ 501739	4885 706101	13431 1470356	139587	308880	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBZ	Ave	++++ 938370	9421 1348354	22457 2863537	247947	560835	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBZ	Ave	++++ 470735	4200 672909	11018 1470768	121634	281292	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBZ	Ave	++++ 738944	5944 1064062	15392 2267731	189847	440060	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBZ	Ave	++++ 750962	4600 1083437	13770 2341045	187895	444700	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBZ	Ave	++++ 1451874	12986 2030591	34913 3838756	395231	889835	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	++++ 712414	6720 1008505	17454 2093401	192364	436026	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBZ	Ave	++++ 1731327	17257 2365047	44036 4146137	486624	1084681	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBZ	Ave	++++ 646113	++++ 905747	16607 1870480	180298	398624	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Decane	CBZ	Ave	++++ 684024	++++ 954887	17654 1961681	192981	427132	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBZ	Ave	++++ 1530126	14134 2116938	36440 3862979	407457	932747	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBZ	Ave	++++ 1358064	13910 1888502	34345 3510235	376216	845305	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBZ	Ave	++++ 1310886	11537 1830212	31160 3415805	360127	806326	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBZ	Ave	++++ 624137	4651 894909	11584 1943447	159398	363709	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBZ	Ave	++++ 1261087	11137 1766290	28968 3401262	346534	774425	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24163-1 Analy Batch No.: 76115

SDG No.: _____

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/15/2014 10:29 Calibration End Date: 08/15/2014 16:40 Calibration ID: 27711

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBZ	Ave	++++ 1336236	11609 1848731	30725 3405274	373970	832616	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBZ	Ave	++++ 1756219	16389 2398224	42530 4146696	506822	1102027	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBZ	Ave	++++ 1620453	13422 2237091	36999 3919738	452459	1003650	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBZ	Ave	++++ 918524	8750 1332710	20236 2709507	237420	553552	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBZ	Ave	++++ 921608	8964 1330927	19669 2667489	239324	550653	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBZ	Ave	++++ 1165178	10326 1640819	25675 3054910	313664	719550	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butylbenzene	CBZ	Ave	++++ 1539054	14687 2103881	36861 3662468	434249	962270	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBZ	Ave	++++ 804293	++++ 1125067	++++ 2207990	235303	509676	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2-Dichlorobenzene	CBZ	Ave	++++ 864064	7582 1254124	18818 2580806	224145	521924	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBZ	Ave	++++ 845334	++++ 1207984	++++ 2297931	227378	547913	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBZ	Ave	++++ 790334	++++ 1202463	15176 2469176	176509	480984	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBZ	Ave	++++ 843847	6357 1240469	16544 2604839	213068	515033	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBZ	Ave	++++ 1499234	++++ 2286906	29885 4045141	320828	939044	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBZ	Ave	++++ 730923	5387 1117189	13584 2319399	156880	448898	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-77938/5	9732_005.D
Level 2	IC 200-77938/6	9732_006.D
Level 3	IC 200-77938/7	9732_007.D
Level 4	IC 200-77938/21	9732_021.D
Level 5	ICIS 200-77938/9	9732_009.D
Level 6	IC 200-77938/10	9732_010.D
Level 7	IC 200-77938/11	9732_011.D
Level 8	IC 200-77938/12	9732_012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Propylene	++++ 0.4941	++++ 0.6051	0.6507 0.4674	0.6618	0.4989	Ave		0.5630			15.0		30.0				
Dichlorodifluoromethane	++++ 2.8493	++++ 3.4816	3.2691 2.6724	3.8366	2.9318	Ave		3.1735			14.0		30.0				
Freon 22	++++ 1.3276	++++ 1.6094	1.4998 1.2453	1.7882	1.3605	Ave		1.4718			14.0		30.0				
1,2-Dichlorotetrafluoroethane	++++ 2.3307	2.3787 2.8451	2.6970 2.1994	3.1256	2.3833	Ave		2.5657			13.0		30.0				
Chloromethane	++++ 0.6533	++++ 0.7900	0.7886 0.6247	0.8554	0.6589	Ave		0.7285			13.0		30.0				
n-Butane	++++ 0.8722	++++ 1.0734	1.0950 0.8302	1.1586	0.8915	Ave		0.9868			14.0		30.0				
Vinyl chloride	1.0176 0.7726	0.7931 0.9567	0.9138 0.7470	1.0081	0.7900	Ave		0.8749			13.0		30.0				
1,3-Butadiene	++++ 0.4864	0.4783 0.6156	0.5179 0.4799	0.6423	0.5011	Ave		0.5316			13.0		30.0				
Bromomethane	++++ 0.9985	0.9914 1.2150	1.1046 0.9656	1.3077	1.0052	Ave		1.0840			12.0		30.0				
Chloroethane	++++ 0.3016	++++ 0.3650	0.3352 0.2865	0.3991	0.3086	Ave		0.3327			13.0		30.0				
Isopentane	++++ 0.5498	0.7148 0.6757	0.7981 0.5329	0.7587	0.5697	Ave		0.6571			16.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 1.0361	0.9766 1.2783	1.0971 1.0254	1.3558	1.0488	Ave		1.1169			13.0		30.0				
Trichlorofluoromethane	++++ 2.7847	2.8429 3.4419	3.1224 2.7069	3.6626	2.8441	Ave		3.0579			12.0		30.0				
n-Pentane	++++ 0.8695	++++ 1.0625	0.9964 0.8367	1.1330	0.9009	Ave		0.9665			12.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.1904	++++ 0.2006	0.2109 0.1780	0.3365	0.2492	Ave		0.2276			26.0		30.0				
Ethyl ether	++++ 0.3403	0.4315 0.4468	0.3871 0.3461	0.4353	0.3599	Ave		0.3924			12.0		30.0				
Acrolein	++++ 0.1368	++++ 0.1947	++++ 0.1524	0.1992	0.1623	Ave		0.1691			16.0		30.0				
Freon TF	++++ 1.8147	1.8202 2.2277	1.9597 1.7312	2.3598	1.8355	Ave		1.9641			12.0		30.0				
1,1-Dichloroethene	++++ 0.7880	0.8873 0.9685	0.8856 0.7544	1.0401	0.7920	Ave		0.8737			12.0		30.0				
Acetone	++++ 1.0011	++++ 1.2684	++++ 0.8906	1.2899	1.0206	Ave		1.0941			16.0		30.0				
Carbon disulfide	++++ 2.1283	++++ 2.6696	2.4334 2.0631	2.7379	2.1530	Ave		2.3642			12.0		30.0				
Isopropyl alcohol	++++ 0.6830	++++ 0.6677	++++ 0.6138	0.7332	0.5106	Ave		0.6417			13.0		30.0				
3-Chloropropene	++++ 0.6834	0.6498 0.8178	0.6765 0.6622	0.8348	0.6784	Ave		0.7147			11.0		30.0				
Acetonitrile	++++ 0.3781	++++ 0.4611	++++ 0.3668	0.4558	0.3612	Ave		0.4046			12.0		30.0				
Methylene Chloride	++++ 0.7606	++++ 0.9300	0.9583 0.7279	0.9853	0.7704	Ave		0.8554			13.0		30.0				
tert-Butyl alcohol	++++ 1.0452	++++ 1.0581	++++ 0.9422	1.2144	0.8106	Ave		1.0141			15.0		30.0				
Methyl tert-butyl ether	++++ 1.7532	1.4926 2.3319	1.8122 1.7875	2.2568	1.8458	Ave		1.8972			16.0		30.0				
trans-1,2-Dichloroethene	++++ 1.0336	1.0208 1.2646	1.1158 0.9848	1.3388	1.0519	Ave		1.1158			12.0		30.0				
Acrylonitrile	++++ 0.3636	++++ 0.4641	0.3979 0.3719	0.4414	0.3666	Ave		0.4009			11.0		30.0				
n-Hexane	++++ 0.7652	0.8795 0.9612	0.9071 0.7529	1.0175	0.7946	Ave		0.8683			12.0		30.0				
1,1-Dichloroethane	1.7236 1.3344	1.3485 1.5936	1.4448 1.2855	1.6233	1.3266	Ave		1.4600			11.0		30.0				
Vinyl acetate	++++ 1.3803	++++ 1.8127	++++ 1.4059	1.6986	1.4489	Ave		1.5493			13.0		30.0				
cis-1,2-Dichloroethene	++++ 0.9508	0.9644 1.1450	1.0673 0.9239	1.1654	0.9466	Ave		1.0233			9.9		30.0				
Methyl Ethyl Ketone	++++ 0.3023	++++ 0.3873	0.5249 0.2927	0.3602	0.2988	Ave		0.3610			25.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 8	LVL 5												
Ethyl acetate	++++ 0.0400	++++ 0.0560	++++ 0.0407	0.0494	0.0442	Ave		0.0461			14.0		30.0				
Tetrahydrofuran	++++ 0.1177	++++ 0.1648	++++ 0.1217	0.1617	0.1233	Ave		0.1378			17.0		30.0				
Chloroform	++++ 2.0292	1.9877 2.4564	2.1886 1.9508	2.4873	2.0653	Ave		2.1665			10.0		30.0				
Cyclohexane	++++ 0.2012	0.2304 0.2620	0.2381 0.2008	0.2830	0.2080	Ave		0.2319			14.0		30.0				
1,1,1-Trichloroethane	++++ 0.4686	0.5495 0.5950	0.5472 0.4609	0.6333	0.4796	Ave		0.5335			12.0		30.0				
Carbon tetrachloride	0.5657 0.5517	0.6048 0.7214	0.6217 0.5512	0.7636	0.5700	Ave		0.6188			13.0		30.0				
2,2,4-Trimethylpentane	++++ 0.6723	0.7327 0.8582	0.7701 0.6491	0.9185	0.7011	Ave		0.7574			13.0		30.0				
Benzene	++++ 0.5085	0.6718 0.6594	0.6195 0.5042	0.6824	0.5384	Ave		0.5977			13.0		30.0				
1,2-Dichloroethane	++++ 0.2792	0.2936 0.3625	0.3143 0.2812	0.3797	0.2922	Ave		0.3147			13.0		30.0				
n-Heptane	++++ 0.2431	0.2869 0.3157	0.3066 0.2391	0.3369	0.2551	Ave		0.2833			14.0		30.0				
n-Butanol	++++ 0.0618	++++ 0.0625	++++ 0.0556	0.0680	0.0430	Ave		0.0582			16.0		30.0				
Trichloroethene	0.3236 0.3002	0.3495 0.3906	0.3413 0.2963	0.4111	0.3138	Ave		0.3408			12.0		30.0				
1,2-Dichloropropane	++++ 0.1997	0.2140 0.2654	0.2287 0.2023	0.2659	0.2146	Ave		0.2272			12.0		30.0				
Methyl methacrylate	++++ 0.1620	++++ 0.2360	++++ 0.1729	0.2200	0.1758	Ave		0.1874			17.0		30.0				
1,4-Dioxane	++++ 0.0867	++++ 0.0880	++++ 0.0810	0.0943	0.0664	Ave		0.0833			13.0		30.0				
Dibromomethane	++++ 0.3171	0.3550 0.4125	0.3644 0.3162	0.4283	0.3293	Ave		0.3604			12.0		30.0				
Bromodichloromethane	++++ 0.5467	0.5161 0.7205	0.5910 0.5575	0.7220	0.5760	Ave		0.6043			14.0		30.0				
cis-1,3-Dichloropropene	++++ 0.3567	0.3658 0.4865	0.3830 0.3713	0.4736	0.3754	Ave		0.4017			13.0		30.0				
methyl isobutyl ketone	++++ 0.3661	++++ 0.5389	0.4115 0.3825	0.5104	0.3936	Ave		0.4338			17.0		30.0				
Toluene	++++ 0.4239	0.4436 0.5614	0.4903 0.4328	0.5599	0.4507	Ave		0.4804			12.0		30.0				

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

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

Lab Name: TestAmerica Burlington

Job No.: 200-24861-1

Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12

Calibration End Date: 09/30/2014 09:46

Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
n-Octane	++++ 0.3931	0.4529 0.5240	0.4720 0.3929	0.5501	0.4240	Ave		0.4584			13.0		30.0				
trans-1,3-Dichloropropene	++++ 0.3825	0.4290 0.5366	0.4051 0.4004	0.5277	0.4095	Ave		0.4416			14.0		30.0				
1,1,2-Trichloroethane	++++ 0.2266	0.2248 0.3034	0.2621 0.2301	0.3037	0.2396	Ave		0.2558			14.0		30.0				
Tetrachloroethene	0.4901 0.4453	0.4674 0.5834	0.5407 0.4502	0.5978	0.4676	Ave		0.5053			12.0		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.3431	++++ 0.4889	0.4096 0.3523	0.4581	0.3573	Ave		0.4016			15.0		30.0				
Dibromochloromethane	++++ 0.5970	0.5039 0.7959	0.5836 0.6149	0.7735	0.6267	Ave		0.6422			16.0		30.0				
1,2-Dibromoethane	++++ 0.4603	0.4341 0.6280	0.5157 0.4747	0.6140	0.4889	Ave		0.5165			15.0		30.0				
Chlorobenzene	++++ 0.6130	0.6828 0.8241	0.7391 0.6340	0.8427	0.6508	Ave		0.7124			13.0		30.0				
Ethylbenzene	++++ 0.9270	1.0497 1.2640	1.0572 0.9508	1.3052	1.0008	Ave		1.0792			14.0		30.0				
n-Nonane	++++ 0.3643	0.3891 0.4844	0.4282 0.3639	0.5109	0.3954	Ave		0.4195			14.0		30.0				
m,p-Xylene	++++ 0.3715	0.4317 0.5071	0.4251 0.3850	0.5244	0.3982	Ave		0.4347			14.0		30.0				
Xylene, o-	++++ 0.3817	0.3947 0.5232	0.4106 0.3949	0.5292	0.4089	Ave		0.4347			15.0		30.0				
Styrene	++++ 0.5746	0.6065 0.7912	0.4754 0.6035	0.7791	0.6040	Ave		0.6335			18.0		30.0				
Bromoform	++++ 0.6066	0.5133 0.8312	0.5833 0.6266	0.8152	0.6523	Ave		0.6612			18.0		30.0				
Cumene	++++ 1.0743	1.0660 1.4756	1.1943 1.1051	1.4983	1.1637	Ave		1.2253			15.0		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.5764	0.6218 0.7872	0.6812 0.5747	0.8107	0.6310	Ave		0.6690			14.0		30.0				
n-Propylbenzene	++++ 1.2648	1.3552 1.7378	1.4561 1.2580	1.7987	1.3848	Ave		1.4651			15.0		30.0				
1,2,3-Trichloropropane	++++ 0.4304	++++ 0.5832	0.5400 0.4226	0.6199	0.4711	Ave		0.5112			16.0		30.0				
n-Decane	++++ 0.4236	++++ 0.5583	0.5571 0.3778	0.6402	0.4850	Ave		0.5070			19.0		30.0				
4-Ethyltoluene	++++ 1.0191	1.2577 1.4073	1.1978 1.0307	1.4840	1.1262	Ave		1.2175			15.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938
 SDG No.: _____
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 0.8722	1.0763 1.1740	1.0707 0.8477	1.2687	0.9599	Ave		1.0385			15.0		30.0				
1,3,5-Trimethylbenzene	++++ 0.9189	0.9271 1.2717	1.0166 0.9447	1.2964	1.0007	Ave		1.0537			15.0		30.0				
Alpha Methyl Styrene	++++ 0.4782	0.5090 0.6442	0.2046 0.5011	0.6045	0.4691	Ave		0.4873			29.0		30.0				
tert-Butylbenzene	++++ 0.8590	0.8914 1.1817	0.9636 0.8836	1.2284	0.9342	Ave		0.9917			15.0		30.0				
1,2,4-Trimethylbenzene	++++ 0.9168	0.9846 1.2692	1.0271 0.9336	1.2941	1.0013	Ave		1.0609			15.0		30.0				
sec-Butylbenzene	++++ 1.2913	1.2803 1.7709	1.4552 1.3020	1.8422	1.4196	Ave		1.4802			16.0		30.0				
4-Isopropyltoluene	++++ 1.0777	1.1111 1.5045	1.2590 1.0998	1.5431	1.1942	Ave		1.2556			15.0		30.0				
1,3-Dichlorobenzene	++++ 0.6810	1.1070 0.9514	0.8570 0.6933	1.0132	0.7473	Ave		0.8643			19.0		30.0				
1,4-Dichlorobenzene	++++ 0.6931	1.0091 0.9817	0.8684 0.7082	1.0278	0.7597	Ave		0.8640			17.0		30.0				
Benzyl chloride	++++ 0.6908	0.5990 1.0194	0.7071 0.7434	0.9559	0.7462	Ave		0.7803			19.0		30.0				
n-Butylbenzene	++++ 0.9809	1.0863 1.3707	1.1802 0.9564	1.4345	1.0964	Ave		1.1579			16.0		30.0				
n-Undecane	++++ 0.4385	++++ 0.6474	++++ 0.4323	0.7156	0.5094	Ave		0.5486			23.0		30.0				
1,2-Dichlorobenzene	++++ 0.6746	0.9483 0.9324	0.8165 0.6811	0.9769	0.7381	Ave		0.8240			16.0		30.0				
n-Dodecane	++++ 0.4075	++++ 0.6312	++++ 0.2633	0.6044	0.4496	Ave		0.4712			32.0	*	30.0				
1,2,4-Trichlorobenzene	++++ 0.5560	++++ 0.8519	0.7346 0.4942	0.8727	0.6463	Ave		0.6926			22.0		30.0				
Hexachlorobutadiene	++++ 0.5108	0.5650 0.7028	0.6792 0.4440	0.7716	0.5750	Ave		0.6069			19.0		30.0				
Naphthalene	++++ 1.0897	++++ 1.7696	1.1915 0.9541	1.6832	1.2454	Ave		1.3223			25.0		30.0				
1,2,3-Trichlorobenzene	++++ 0.5194	0.5816 0.8016	0.6821 0.4082	0.8053	0.5880	Ave		0.6266			23.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-77938/5	9732_005.D
Level 2	IC 200-77938/6	9732_006.D
Level 3	IC 200-77938/7	9732_007.D
Level 4	IC 200-77938/21	9732_021.D
Level 5	ICIS 200-77938/9	9732_009.D
Level 6	IC 200-77938/10	9732_010.D
Level 7	IC 200-77938/11	9732_011.D
Level 8	IC 200-77938/12	9732_012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Propylene	BCM	Ave	++++ 364952	++++ 481121	14391 910752	125274	232597	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 2104645	++++ 2768083	72305 5207474	726256	1366907	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Freon 22	BCM	Ave	++++ 980598	++++ 1279587	33171 2426634	338499	634336	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 1721553	21570 2261998	59650 4285724	591674	1111208	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chloromethane	BCM	Ave	++++ 482576	++++ 628082	17442 1217378	161924	307216	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Butane	BCM	Ave	++++ 644270	++++ 853398	24219 1617737	219324	415659	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Vinyl chloride	BCM	Ave	1816 570667	7192 760620	20210 1455643	190831	368352	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3-Butadiene	BCM	Ave	++++ 359280	4337 489453	11454 935214	121594	233621	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromomethane	BCM	Ave	++++ 737529	8990 965990	24431 1881575	247544	468655	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chloroethane	BCM	Ave	++++ 222764	++++ 290197	7413 558249	75554	143873	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Isopentane	BCM	Ave	++++ 406093	6482 537205	17653 1038522	143611	265597	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 765294	8856 1016358	24265 1998082	256647	488988	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Trichlorofluoromethane	BCM	Ave	++++ 2056948	25780 2736519	69059 5274807	693315	1326028	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Pentane	BCM	Ave	++++ 642244	++++ 844753	22039 1630338	214475	420044	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Ethanol	BCM	Ave	++++ 187912	++++ 319069	46706 867225	95601	174361	++++ 20.0	++++ 40.0	5.01 100.0	7.50	15.0

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 251389	3913 355229	8561 674336	82403	167779	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acrolein	BCM	Ave	++++ 101040	++++ 154808	++++ 297059	37706	75682	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Freon TF	BCM	Ave	++++ 1340406	16506 1771193	43344 3373563	446698	855805	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1-Dichloroethene	BCM	Ave	++++ 582057	8046 770058	19587 1470063	196893	369271	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acetone	BCM	Ave	++++ 739427	++++ 1008467	++++ 1735433	244177	475841	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Carbon disulfide	BCM	Ave	++++ 1572080	++++ 2122521	53821 4020299	518287	1003806	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Isopropyl alcohol	BCM	Ave	++++ 504492	++++ 530877	++++ 1196116	138796	238077	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
3-Chloropropene	BCM	Ave	++++ 504780	++++ 650196	5892 1290353	14962	316310	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acetonitrile	BCM	Ave	++++ 279255	++++ 366627	++++ 714728	86280	168413	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Methylene Chloride	BCM	Ave	++++ 561796	++++ 739411	++++ 1418396	21195	186517	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
tert-Butyl alcohol	BCM	Ave	++++ 772005	++++ 841288	++++ 1836046	229874	377916	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1295011	++++ 1853995	13535 3483214	40082	860606	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 763474	9257 1005460	24678 1918945	253441	490435	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acrylonitrile	BCM	Ave	++++ 268552	++++ 369003	++++ 724666	8800	83554	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Hexane	BCM	Ave	++++ 565231	7975 764253	20062 1467035	192609	370474	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1-Dichloroethane	BCM	Ave	3076 985655	12228 1267010	31955 2504949	307286	618512	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Vinyl acetate	BCM	Ave	++++ 1019560	++++ 1441201	++++ 2739523	321534	675518	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
cis-1,2-Dichloroethene	BCM	Ave	++++ 702282	++++ 910328	8745 1800279	23606	220608	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 223298	++++ 307951	11609 570288	68179	139299	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Ethyl acetate	BCM	Ave	++++ 29572	++++ 44504	++++ 79270	9351	20597	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Tetrahydrofuran	DFB	Ave	++++ 419150	++++ 592814	++++ 1113689	134319	269880	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 1498833	18025 1953018	48406 3801335	470839	962943	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Cyclohexane	DFB	Ave	++++ 716626	8158 942126	23029 1837493	235108	455246	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,1-Trichloroethane	DFB	Ave	++++ 1669129	19458 2139810	52928 4218457	526113	1049473	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Carbon tetrachloride	DFB	Ave	4945 1964913	21416 2594332	60135 5045063	634350	1247292	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
2,2,4-Trimethylpentane	DFB	Ave	++++ 2394471	25944 3086459	74485 5940501	763019	1534084	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Benzene	DFB	Ave	++++ 1811155	23787 2371201	59923 4614906	566869	1178158	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dichloroethane	DFB	Ave	++++ 994454	10396 1303709	30401 2573284	315450	639388	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Heptane	DFB	Ave	++++ 865713	10158 1135213	29651 2188003	279896	558109	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Butanol	DFB	Ave	++++ 220108	++++ 224739	++++ 509210	56459	94056	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Trichloroethene	DFB	Ave	2829 1069366	12374 1404585	33015 2712138	341548	686682	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dichloropropane	DFB	Ave	++++ 711394	7579 954573	22121 1851977	220862	469604	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl methacrylate	DFB	Ave	++++ 576935	++++ 848613	15247 1582116	182804	384575	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,4-Dioxane	DFB	Ave	++++ 308797	++++ 316301	++++ 741498	78313	145249	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Dibromomethane	DFB	Ave	++++ 1129467	12571 1483491	35244 2893657	355839	720554	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromodichloromethane	DFB	Ave	++++ 1947128	18275 2591084	57160 5102886	599802	1260416	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
cis-1,3-Dichloropropene	DFB	Ave	++++ 1270354	12952 1749519	37045 3398077	393412	821386	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
methyl isobutyl ketone	DFB	Ave	++++ 1304079	++++ 1938206	39800 3501119	423979	861343	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Toluene	CBZ	Ave	++++ 1620875	18230 2198682	50230 4267120	502304	1058662	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Octane	DFB	Ave	++++ 1400182	16036 1884458	45655 3596017	457010	927770	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
trans-1,3-Dichloropropene	DFB	Ave	++++ 1362517	15192 1929800	39179 3664961	438416	896122	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,2-Trichloroethane	CBZ	Ave	++++ 866467	9239 1188297	26854 2268895	272449	562815	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington

Job No.: 200-24861-1

Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12

Calibration End Date: 09/30/2014 09:46

Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Tetrachloroethene	CBZ	Ave	4402 1702698	19207 2284991	55389 4438806	536321	1098315	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	++++ 1311864	++++ 1915060	41962 3473569	410939	839298	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Dibromochloromethane	CBZ	Ave	++++ 2282814	20709 3117215	59783 6063051	693860	1472146	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dibromoethane	CBZ	Ave	++++ 1759988	17841 2459539	52830 4681114	550829	1148423	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chlorobenzene	CBZ	Ave	++++ 2343887	28063 3227611	75717 6251062	756020	1528738	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Ethylbenzene	CBZ	Ave	++++ 3544314	43141 4950748	108305 9375519	1170879	2350843	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Nonane	CBZ	Ave	++++ 1392908	15992 1897218	43871 3588601	458282	928766	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
m,p-Xylene	CBZ	Ave	++++ 2840761	35485 3972633	87108 7592013	940906	1870919	++++ 30.0	0.401 40.0	1.00 80.0	10.00	20.0
Xylene, o-	CBZ	Ave	++++ 1459317	16223 2049114	42064 3894139	474710	960617	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Styrene	CBZ	Ave	++++ 2197184	24925 3098946	48701 5950988	698897	1418907	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromoform	CBZ	Ave	++++ 2319388	21095 3255580	59754 6178261	731301	1532288	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Cumene	CBZ	Ave	++++ 4107738	43808 5779520	122350 10896430	1344098	2733564	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	++++ 2203997	25555 3083062	69786 5667065	727316	1482321	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Propylbenzene	CBZ	Ave	++++ 4836086	55695 6806505	149175 12404334	1613628	3252813	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2,3-Trichloropropane	CBZ	Ave	++++ 1645714	++++ 2284290	55316 4167085	556145	1106672	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Decane	CBZ	Ave	++++ 1619592	++++ 2186636	57068 3725174	574324	1139187	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
4-Ethyltoluene	CBZ	Ave	++++ 3896545	51687 5511878	122708 10163538	1331282	2645426	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
2-Chlorotoluene	CBZ	Ave	++++ 3334846	44235 4598226	109690 8358328	1138136	2254746	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3,5-Trimethylbenzene	CBZ	Ave	++++ 3513420	38103 4980843	104148 9315523	1162945	2350619	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Alpha Methyl Styrene	CBZ	Ave	++++ 1828595	20920 2523220	20963 4941397	542295	1101811	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
tert-Butylbenzene	CBZ	Ave	++++ 3284655	36635 4628393	98713 8712881	1101967	2194491	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24861-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBZ	Ave	++++ 3505312	40465 4971133	105217 9205310	1160917	2352078	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
sec-Butylbenzene	CBZ	Ave	++++ 4937398	52619 6936074	149080 12838399	1652625	3334657	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
4-Isopropyltoluene	CBZ	Ave	++++ 4120747	45664 5892539	128974 10844512	1384264	2805111	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3-Dichlorobenzene	CBZ	Ave	++++ 2603976	45495 3726372	87798 6835828	908933	1755346	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,4-Dichlorobenzene	CBZ	Ave	++++ 2650216	41472 3845125	88960 6982956	922064	1784615	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Benzyl chloride	CBZ	Ave	++++ 2641294	24617 3992660	72439 7329722	857535	1752915	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Butylbenzene	CBZ	Ave	++++ 3750698	44643 5368530	120901 9430771	1286866	2575396	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Undecane	CBZ	Ave	++++ 1676529	++++ 2535556	++++ 4262851	642001	1196534	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
1,2-Dichlorobenzene	CBZ	Ave	++++ 2579586	38971 3651806	83646 6715745	876336	1733893	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Dodecane	CBZ	Ave	++++ 1558017	++++ 2472284	++++ 2596016	542232	1056007	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
1,2,4-Trichlorobenzene	CBZ	Ave	++++ 2125918	++++ 3336823	75259 4872507	782885	1518170	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Hexachlorobutadiene	CBZ	Ave	++++ 1953117	23220 2752499	69583 4378350	692165	1350679	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Naphthalene	CBZ	Ave	++++ 4166712	++++ 6930964	122067 9408069	1510021	2925404	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,2,3-Trichlorobenzene	CBZ	Ave	++++ 1985963	++++ 3139627	23902 4024527	69873	722389	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

Curve Type Legend:

Ave = Average ISTD

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-77938/5	9732_005.D
Level 2	IC 200-77938/6	9732_006.D
Level 3	IC 200-77938/7	9732_007.D
Level 4	IC 200-77938/21	9732_021.D
Level 5	ICIS 200-77938/9	9732_009.D
Level 6	IC 200-77938/10	9732_010.D
Level 7	IC 200-77938/11	9732_011.D
Level 8	IC 200-77938/12	9732_012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Propylene	++++ 0.4941	++++ 0.6051	0.6507 0.4674	0.6618	0.4989	Ave		0.5630			15.0		30.0				
Dichlorodifluoromethane	++++ 2.8493	++++ 3.4816	3.2691 2.6724	3.8366	2.9318	Ave		3.1735			14.0		30.0				
Freon 22	++++ 1.3276	++++ 1.6094	1.4998 1.2453	1.7882	1.3605	Ave		1.4718			14.0		30.0				
1,2-Dichlorotetrafluoroethane	++++ 2.3307	2.3787 2.8451	2.6970 2.1994	3.1256	2.3833	Ave		2.5657			13.0		30.0				
Chloromethane	++++ 0.6533	++++ 0.7900	0.7886 0.6247	0.8554	0.6589	Ave		0.7285			13.0		30.0				
n-Butane	++++ 0.8722	++++ 1.0734	1.0950 0.8302	1.1586	0.8915	Ave		0.9868			14.0		30.0				
Vinyl chloride	1.0176 0.7726	0.7931 0.9567	0.9138 0.7470	1.0081	0.7900	Ave		0.8749			13.0		30.0				
1,3-Butadiene	++++ 0.4864	0.4783 0.6156	0.5179 0.4799	0.6423	0.5011	Ave		0.5316			13.0		30.0				
Bromomethane	++++ 0.9985	0.9914 1.2150	1.1046 0.9656	1.3077	1.0052	Ave		1.0840			12.0		30.0				
Chloroethane	++++ 0.3016	++++ 0.3650	0.3352 0.2865	0.3991	0.3086	Ave		0.3327			13.0		30.0				
Isopentane	++++ 0.5498	0.7148 0.6757	0.7981 0.5329	0.7587	0.5697	Ave		0.6571			16.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 1.0361	0.9766 1.2783	1.0971 1.0254	1.3558	1.0488	Ave		1.1169			13.0		30.0				
Trichlorofluoromethane	++++ 2.7847	2.8429 3.4419	3.1224 2.7069	3.6626	2.8441	Ave		3.0579			12.0		30.0				
n-Pentane	++++ 0.8695	++++ 1.0625	0.9964 0.8367	1.1330	0.9009	Ave		0.9665			12.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.1904	++++ 0.2006	0.2109 0.1780	0.3365	0.2492	Ave		0.2276			26.0		30.0				
Ethyl ether	++++ 0.3403	0.4315 0.4468	0.3871 0.3461	0.4353	0.3599	Ave		0.3924			12.0		30.0				
Acrolein	++++ 0.1368	++++ 0.1947	++++ 0.1524	0.1992	0.1623	Ave		0.1691			16.0		30.0				
Freon TF	++++ 1.8147	1.8202 2.2277	1.9597 1.7312	2.3598	1.8355	Ave		1.9641			12.0		30.0				
1,1-Dichloroethene	++++ 0.7880	0.8873 0.9685	0.8856 0.7544	1.0401	0.7920	Ave		0.8737			12.0		30.0				
Acetone	++++ 1.0011	++++ 1.2684	++++ 0.8906	1.2899	1.0206	Ave		1.0941			16.0		30.0				
Carbon disulfide	++++ 2.1283	++++ 2.6696	2.4334 2.0631	2.7379	2.1530	Ave		2.3642			12.0		30.0				
Isopropyl alcohol	++++ 0.6830	++++ 0.6677	++++ 0.6138	0.7332	0.5106	Ave		0.6417			13.0		30.0				
3-Chloropropene	++++ 0.6834	0.6498 0.8178	0.6765 0.6622	0.8348	0.6784	Ave		0.7147			11.0		30.0				
Acetonitrile	++++ 0.3781	++++ 0.4611	++++ 0.3668	0.4558	0.3612	Ave		0.4046			12.0		30.0				
Methylene Chloride	++++ 0.7606	++++ 0.9300	0.9583 0.7279	0.9853	0.7704	Ave		0.8554			13.0		30.0				
tert-Butyl alcohol	++++ 1.0452	++++ 1.0581	++++ 0.9422	1.2144	0.8106	Ave		1.0141			15.0		30.0				
Methyl tert-butyl ether	++++ 1.7532	1.4926 2.3319	1.8122 1.7875	2.2568	1.8458	Ave		1.8972			16.0		30.0				
trans-1,2-Dichloroethene	++++ 1.0336	1.0208 1.2646	1.1158 0.9848	1.3388	1.0519	Ave		1.1158			12.0		30.0				
Acrylonitrile	++++ 0.3636	++++ 0.4641	0.3979 0.3719	0.4414	0.3666	Ave		0.4009			11.0		30.0				
n-Hexane	++++ 0.7652	0.8795 0.9612	0.9071 0.7529	1.0175	0.7946	Ave		0.8683			12.0		30.0				
1,1-Dichloroethane	1.7236 1.3344	1.3485 1.5936	1.4448 1.2855	1.6233	1.3266	Ave		1.4600			11.0		30.0				
Vinyl acetate	++++ 1.3803	++++ 1.8127	++++ 1.4059	1.6986	1.4489	Ave		1.5493			13.0		30.0				
cis-1,2-Dichloroethene	++++ 0.9508	0.9644 1.1450	1.0673 0.9239	1.1654	0.9466	Ave		1.0233			9.9		30.0				
Methyl Ethyl Ketone	++++ 0.3023	++++ 0.3873	0.5249 0.2927	0.3602	0.2988	Ave		0.3610			25.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 8	LVL 5												
Ethyl acetate	++++ 0.0400	++++ 0.0560	++++ 0.0407	0.0494	0.0442	Ave		0.0461			14.0		30.0				
Tetrahydrofuran	++++ 0.1177	++++ 0.1648	++++ 0.1217	0.1617	0.1233	Ave		0.1378			17.0		30.0				
Chloroform	++++ 2.0292	1.9877 2.4564	2.1886 1.9508	2.4873	2.0653	Ave		2.1665			10.0		30.0				
Cyclohexane	++++ 0.2012	0.2304 0.2620	0.2381 0.2008	0.2830	0.2080	Ave		0.2319			14.0		30.0				
1,1,1-Trichloroethane	++++ 0.4686	0.5495 0.5950	0.5472 0.4609	0.6333	0.4796	Ave		0.5335			12.0		30.0				
Carbon tetrachloride	0.5657 0.5517	0.6048 0.7214	0.6217 0.5512	0.7636	0.5700	Ave		0.6188			13.0		30.0				
2,2,4-Trimethylpentane	++++ 0.6723	0.7327 0.8582	0.7701 0.6491	0.9185	0.7011	Ave		0.7574			13.0		30.0				
Benzene	++++ 0.5085	0.6718 0.6594	0.6195 0.5042	0.6824	0.5384	Ave		0.5977			13.0		30.0				
1,2-Dichloroethane	++++ 0.2792	0.2936 0.3625	0.3143 0.2812	0.3797	0.2922	Ave		0.3147			13.0		30.0				
n-Heptane	++++ 0.2431	0.2869 0.3157	0.3066 0.2391	0.3369	0.2551	Ave		0.2833			14.0		30.0				
n-Butanol	++++ 0.0618	++++ 0.0625	++++ 0.0556	0.0680	0.0430	Ave		0.0582			16.0		30.0				
Trichloroethene	0.3236 0.3002	0.3495 0.3906	0.3413 0.2963	0.4111	0.3138	Ave		0.3408			12.0		30.0				
1,2-Dichloropropane	++++ 0.1997	0.2140 0.2654	0.2287 0.2023	0.2659	0.2146	Ave		0.2272			12.0		30.0				
Methyl methacrylate	++++ 0.1620	++++ 0.2360	++++ 0.1729	0.2200	0.1758	Ave		0.1874			17.0		30.0				
1,4-Dioxane	++++ 0.0867	++++ 0.0880	++++ 0.0810	0.0943	0.0664	Ave		0.0833			13.0		30.0				
Dibromomethane	++++ 0.3171	0.3550 0.4125	0.3644 0.3162	0.4283	0.3293	Ave		0.3604			12.0		30.0				
Bromodichloromethane	++++ 0.5467	0.5161 0.7205	0.5910 0.5575	0.7220	0.5760	Ave		0.6043			14.0		30.0				
cis-1,3-Dichloropropene	++++ 0.3567	0.3658 0.4865	0.3830 0.3713	0.4736	0.3754	Ave		0.4017			13.0		30.0				
methyl isobutyl ketone	++++ 0.3661	++++ 0.5389	0.4115 0.3825	0.5104	0.3936	Ave		0.4338			17.0		30.0				
Toluene	++++ 0.4239	0.4436 0.5614	0.4903 0.4328	0.5599	0.4507	Ave		0.4804			12.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
n-Octane	++++ 0.3931	0.4529 0.5240	0.4720 0.3929	0.5501	0.4240	Ave		0.4584			13.0		30.0				
trans-1,3-Dichloropropene	++++ 0.3825	0.4290 0.5366	0.4051 0.4004	0.5277	0.4095	Ave		0.4416			14.0		30.0				
1,1,2-Trichloroethane	++++ 0.2266	0.2248 0.3034	0.2621 0.2301	0.3037	0.2396	Ave		0.2558			14.0		30.0				
Tetrachloroethene	0.4901 0.4453	0.4674 0.5834	0.5407 0.4502	0.5978	0.4676	Ave		0.5053			12.0		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.3431	++++ 0.4889	0.4096 0.3523	0.4581	0.3573	Ave		0.4016			15.0		30.0				
Dibromochloromethane	++++ 0.5970	0.5039 0.7959	0.5836 0.6149	0.7735	0.6267	Ave		0.6422			16.0		30.0				
1,2-Dibromoethane	++++ 0.4603	0.4341 0.6280	0.5157 0.4747	0.6140	0.4889	Ave		0.5165			15.0		30.0				
Chlorobenzene	++++ 0.6130	0.6828 0.8241	0.7391 0.6340	0.8427	0.6508	Ave		0.7124			13.0		30.0				
Ethylbenzene	++++ 0.9270	1.0497 1.2640	1.0572 0.9508	1.3052	1.0008	Ave		1.0792			14.0		30.0				
n-Nonane	++++ 0.3643	0.3891 0.4844	0.4282 0.3639	0.5109	0.3954	Ave		0.4195			14.0		30.0				
m,p-Xylene	++++ 0.3715	0.4317 0.5071	0.4251 0.3850	0.5244	0.3982	Ave		0.4347			14.0		30.0				
Xylene, o-	++++ 0.3817	0.3947 0.5232	0.4106 0.3949	0.5292	0.4089	Ave		0.4347			15.0		30.0				
Styrene	++++ 0.5746	0.6065 0.7912	0.4754 0.6035	0.7791	0.6040	Ave		0.6335			18.0		30.0				
Bromoform	++++ 0.6066	0.5133 0.8312	0.5833 0.6266	0.8152	0.6523	Ave		0.6612			18.0		30.0				
Cumene	++++ 1.0743	1.0660 1.4756	1.1943 1.1051	1.4983	1.1637	Ave		1.2253			15.0		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.5764	0.6218 0.7872	0.6812 0.5747	0.8107	0.6310	Ave		0.6690			14.0		30.0				
n-Propylbenzene	++++ 1.2648	1.3552 1.7378	1.4561 1.2580	1.7987	1.3848	Ave		1.4651			15.0		30.0				
1,2,3-Trichloropropane	++++ 0.4304	++++ 0.5832	0.5400 0.4226	0.6199	0.4711	Ave		0.5112			16.0		30.0				
n-Decane	++++ 0.4236	++++ 0.5583	0.5571 0.3778	0.6402	0.4850	Ave		0.5070			19.0		30.0				
4-Ethyltoluene	++++ 1.0191	1.2577 1.4073	1.1978 1.0307	1.4840	1.1262	Ave		1.2175			15.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 0.8722	1.0763 1.1740	1.0707 0.8477	1.2687	0.9599	Ave		1.0385			15.0		30.0				
1,3,5-Trimethylbenzene	++++ 0.9189	0.9271 1.2717	1.0166 0.9447	1.2964	1.0007	Ave		1.0537			15.0		30.0				
Alpha Methyl Styrene	++++ 0.4782	0.5090 0.6442	0.2046 0.5011	0.6045	0.4691	Ave		0.4873			29.0		30.0				
tert-Butylbenzene	++++ 0.8590	0.8914 1.1817	0.9636 0.8836	1.2284	0.9342	Ave		0.9917			15.0		30.0				
1,2,4-Trimethylbenzene	++++ 0.9168	0.9846 1.2692	1.0271 0.9336	1.2941	1.0013	Ave		1.0609			15.0		30.0				
sec-Butylbenzene	++++ 1.2913	1.2803 1.7709	1.4552 1.3020	1.8422	1.4196	Ave		1.4802			16.0		30.0				
4-Isopropyltoluene	++++ 1.0777	1.1111 1.5045	1.2590 1.0998	1.5431	1.1942	Ave		1.2556			15.0		30.0				
1,3-Dichlorobenzene	++++ 0.6810	1.1070 0.9514	0.8570 0.6933	1.0132	0.7473	Ave		0.8643			19.0		30.0				
1,4-Dichlorobenzene	++++ 0.6931	1.0091 0.9817	0.8684 0.7082	1.0278	0.7597	Ave		0.8640			17.0		30.0				
Benzyl chloride	++++ 0.6908	0.5990 1.0194	0.7071 0.7434	0.9559	0.7462	Ave		0.7803			19.0		30.0				
n-Butylbenzene	++++ 0.9809	1.0863 1.3707	1.1802 0.9564	1.4345	1.0964	Ave		1.1579			16.0		30.0				
n-Undecane	++++ 0.4385	++++ 0.6474	++++ 0.4323	0.7156	0.5094	Ave		0.5486			23.0		30.0				
1,2-Dichlorobenzene	++++ 0.6746	0.9483 0.9324	0.8165 0.6811	0.9769	0.7381	Ave		0.8240			16.0		30.0				
n-Dodecane	++++ 0.4075	++++ 0.6312	++++ 0.2633	0.6044	0.4496	Ave		0.4712			32.0	*	30.0				
1,2,4-Trichlorobenzene	++++ 0.5560	++++ 0.8519	0.7346 0.4942	0.8727	0.6463	Ave		0.6926			22.0		30.0				
Hexachlorobutadiene	++++ 0.5108	0.5650 0.7028	0.6792 0.4440	0.7716	0.5750	Ave		0.6069			19.0		30.0				
Naphthalene	++++ 1.0897	++++ 1.7696	1.1915 0.9541	1.6832	1.2454	Ave		1.3223			25.0		30.0				
1,2,3-Trichlorobenzene	++++ 0.5194	0.5816 0.8016	0.6821 0.4082	0.8053	0.5880	Ave		0.6266			23.0		30.0				

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

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

Lab Name: TestAmerica Burlington

Job No.: 200-24999-1

Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12

Calibration End Date: 09/30/2014 09:46

Calibration ID: 28067

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-77938/5	9732_005.D
Level 2	IC 200-77938/6	9732_006.D
Level 3	IC 200-77938/7	9732_007.D
Level 4	IC 200-77938/21	9732_021.D
Level 5	ICIS 200-77938/9	9732_009.D
Level 6	IC 200-77938/10	9732_010.D
Level 7	IC 200-77938/11	9732_011.D
Level 8	IC 200-77938/12	9732_012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Propylene	BCM	Ave	++++ 364952	++++ 481121	14391 910752	125274	232597	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 2104645	++++ 2768083	72305 5207474	726256	1366907	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Freon 22	BCM	Ave	++++ 980598	++++ 1279587	33171 2426634	338499	634336	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 1721553	21570 2261998	59650 4285724	591674	1111208	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chloromethane	BCM	Ave	++++ 482576	++++ 628082	17442 1217378	161924	307216	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Butane	BCM	Ave	++++ 644270	++++ 853398	24219 1617737	219324	415659	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Vinyl chloride	BCM	Ave	1816 570667	7192 760620	20210 1455643	190831	368352	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3-Butadiene	BCM	Ave	++++ 359280	4337 489453	11454 935214	121594	233621	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromomethane	BCM	Ave	++++ 737529	8990 965990	24431 1881575	247544	468655	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chloroethane	BCM	Ave	++++ 222764	++++ 290197	7413 558249	75554	143873	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Isopentane	BCM	Ave	++++ 406093	6482 537205	17653 1038522	143611	265597	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 765294	8856 1016358	24265 1998082	256647	488988	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Trichlorofluoromethane	BCM	Ave	++++ 2056948	25780 2736519	69059 5274807	693315	1326028	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Pentane	BCM	Ave	++++ 642244	++++ 844753	22039 1630338	214475	420044	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Ethanol	BCM	Ave	++++ 187912	++++ 319069	46706 867225	95601	174361	++++ 20.0	++++ 40.0	5.01 100.0	7.50	15.0

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 251389	3913 355229	8561 674336	82403	167779	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acrolein	BCM	Ave	++++ 101040	++++ 154808	++++ 297059	37706	75682	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Freon TF	BCM	Ave	++++ 1340406	16506 1771193	43344 3373563	446698	855805	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1-Dichloroethene	BCM	Ave	++++ 582057	8046 770058	19587 1470063	196893	369271	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acetone	BCM	Ave	++++ 739427	++++ 1008467	++++ 1735433	244177	475841	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Carbon disulfide	BCM	Ave	++++ 1572080	++++ 2122521	53821 4020299	518287	1003806	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Isopropyl alcohol	BCM	Ave	++++ 504492	++++ 530877	++++ 1196116	138796	238077	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
3-Chloropropene	BCM	Ave	++++ 504780	++++ 650196	5892 1290353	14962	316310	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acetonitrile	BCM	Ave	++++ 279255	++++ 366627	++++ 714728	86280	168413	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Methylene Chloride	BCM	Ave	++++ 561796	++++ 739411	++++ 1418396	21195	186517	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
tert-Butyl alcohol	BCM	Ave	++++ 772005	++++ 841288	++++ 1836046	229874	377916	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1295011	++++ 1853995	13535 3483214	40082	860606	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 763474	9257 1005460	24678 1918945	253441	490435	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Acrylonitrile	BCM	Ave	++++ 268552	++++ 369003	++++ 724666	8800	83554	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Hexane	BCM	Ave	++++ 565231	7975 764253	20062 1467035	192609	370474	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1-Dichloroethane	BCM	Ave	3076 985655	12228 1267010	31955 2504949	307286	618512	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Vinyl acetate	BCM	Ave	++++ 1019560	++++ 1441201	++++ 2739523	321534	675518	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
cis-1,2-Dichloroethene	BCM	Ave	++++ 702282	++++ 910328	8745 1800279	23606	220608	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 223298	++++ 307951	11609 570288	68179	139299	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Ethyl acetate	BCM	Ave	++++ 29572	++++ 44504	++++ 79270	9351	20597	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Tetrahydrofuran	DFB	Ave	++++ 419150	++++ 592814	++++ 1113689	134319	269880	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 1498833	18025 1953018	48406 3801335	470839	962943	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Cyclohexane	DFB	Ave	++++ 716626	8158 942126	23029 1837493	235108	455246	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,1-Trichloroethane	DFB	Ave	++++ 1669129	19458 2139810	52928 4218457	526113	1049473	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Carbon tetrachloride	DFB	Ave	4945 1964913	21416 2594332	60135 5045063	634350	1247292	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
2,2,4-Trimethylpentane	DFB	Ave	++++ 2394471	25944 3086459	74485 5940501	763019	1534084	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Benzene	DFB	Ave	++++ 1811155	23787 2371201	59923 4614906	566869	1178158	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dichloroethane	DFB	Ave	++++ 994454	10396 1303709	30401 2573284	315450	639388	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Heptane	DFB	Ave	++++ 865713	10158 1135213	29651 2188003	279896	558109	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Butanol	DFB	Ave	++++ 220108	++++ 224739	++++ 509210	56459	94056	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Trichloroethene	DFB	Ave	2829 1069366	12374 1404585	33015 2712138	341548	686682	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dichloropropane	DFB	Ave	++++ 711394	7579 954573	22121 1851977	220862	469604	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl methacrylate	DFB	Ave	++++ 576935	++++ 848613	15247 1582116	182804	384575	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,4-Dioxane	DFB	Ave	++++ 308797	++++ 316301	++++ 741498	78313	145249	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
Dibromomethane	DFB	Ave	++++ 1129467	12571 1483491	35244 2893657	355839	720554	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromodichloromethane	DFB	Ave	++++ 1947128	18275 2591084	57160 5102886	599802	1260416	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
cis-1,3-Dichloropropene	DFB	Ave	++++ 1270354	12952 1749519	37045 3398077	393412	821386	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
methyl isobutyl ketone	DFB	Ave	++++ 1304079	++++ 1938206	39800 3501119	423979	861343	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Toluene	CBZ	Ave	++++ 1620875	18230 2198682	50230 4267120	502304	1058662	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Octane	DFB	Ave	++++ 1400182	16036 1884458	45655 3596017	457010	927770	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
trans-1,3-Dichloropropene	DFB	Ave	++++ 1362517	15192 1929800	39179 3664961	438416	896122	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,2-Trichloroethane	CBZ	Ave	++++ 866467	9239 1188297	26854 2268895	272449	562815	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Tetrachloroethene	CBZ	Ave	4402 1702698	19207 2284991	55389 4438806	536321	1098315	0.0401 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	++++ 1311864	++++ 1915060	41962 3473569	410939	839298	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Dibromochloromethane	CBZ	Ave	++++ 2282814	20709 3117215	59783 6063051	693860	1472146	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2-Dibromoethane	CBZ	Ave	++++ 1759988	17841 2459539	52830 4681114	550829	1148423	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Chlorobenzene	CBZ	Ave	++++ 2343887	28063 3227611	75717 6251062	756020	1528738	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Ethylbenzene	CBZ	Ave	++++ 3544314	43141 4950748	108305 9375519	1170879	2350843	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Nonane	CBZ	Ave	++++ 1392908	15992 1897218	43871 3588601	458282	928766	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
m,p-Xylene	CBZ	Ave	++++ 2840761	35485 3972633	87108 7592013	940906	1870919	++++ 30.0	0.401 40.0	1.00 80.0	10.00	20.0
Xylene, o-	CBZ	Ave	++++ 1459317	16223 2049114	42064 3894139	474710	960617	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Styrene	CBZ	Ave	++++ 2197184	24925 3098946	48701 5950988	698897	1418907	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Bromoform	CBZ	Ave	++++ 2319388	21095 3255580	59754 6178261	731301	1532288	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Cumene	CBZ	Ave	++++ 4107738	43808 5779520	122350 10896430	1344098	2733564	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	++++ 2203997	25555 3083062	69786 5667065	727316	1482321	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Propylbenzene	CBZ	Ave	++++ 4836086	55695 6806505	149175 12404334	1613628	3252813	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,2,3-Trichloropropane	CBZ	Ave	++++ 1645714	++++ 2284290	55316 4167085	556145	1106672	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
n-Decane	CBZ	Ave	++++ 1619592	++++ 2186636	57068 3725174	574324	1139187	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
4-Ethyltoluene	CBZ	Ave	++++ 3896545	51687 5511878	122708 10163538	1331282	2645426	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
2-Chlorotoluene	CBZ	Ave	++++ 3334846	44235 4598226	109690 8358328	1138136	2254746	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3,5-Trimethylbenzene	CBZ	Ave	++++ 3513420	38103 4980843	104148 9315523	1162945	2350619	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Alpha Methyl Styrene	CBZ	Ave	++++ 1828595	20920 2523220	20963 4941397	542295	1101811	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
tert-Butylbenzene	CBZ	Ave	++++ 3284655	36635 4628393	98713 8712881	1101967	2194491	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-24999-1 Analy Batch No.: 77938

SDG No.: _____

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/29/2014 17:12 Calibration End Date: 09/30/2014 09:46 Calibration ID: 28067

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBZ	Ave	++++ 3505312	40465 4971133	105217 9205310	1160917	2352078	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
sec-Butylbenzene	CBZ	Ave	++++ 4937398	52619 6936074	149080 12838399	1652625	3334657	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
4-Isopropyltoluene	CBZ	Ave	++++ 4120747	45664 5892539	128974 10844512	1384264	2805111	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,3-Dichlorobenzene	CBZ	Ave	++++ 2603976	45495 3726372	87798 6835828	908933	1755346	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
1,4-Dichlorobenzene	CBZ	Ave	++++ 2650216	41472 3845125	88960 6982956	922064	1784615	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Benzyl chloride	CBZ	Ave	++++ 2641294	24617 3992660	72439 7329722	857535	1752915	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Butylbenzene	CBZ	Ave	++++ 3750698	44643 5368530	120901 9430771	1286866	2575396	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Undecane	CBZ	Ave	++++ 1676529	++++ 2535556	++++ 4262851	642001	1196534	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
1,2-Dichlorobenzene	CBZ	Ave	++++ 2579586	38971 3651806	83646 6715745	876336	1733893	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
n-Dodecane	CBZ	Ave	++++ 1558017	++++ 2472284	++++ 2596016	542232	1056007	++++ 15.0	++++ 20.0	++++ 40.0	5.00	10.00
1,2,4-Trichlorobenzene	CBZ	Ave	++++ 2125918	++++ 3336823	75259 4872507	782885	1518170	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
Hexachlorobutadiene	CBZ	Ave	++++ 1953117	23220 2752499	69583 4378350	692165	1350679	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00
Naphthalene	CBZ	Ave	++++ 4166712	++++ 6930964	122067 9408069	1510021	2925404	++++ 15.0	++++ 20.0	0.500 40.0	5.00	10.00
1,2,3-Trichlorobenzene	CBZ	Ave	++++ 1985963	++++ 3139627	23902 4024527	69873	722389	++++ 15.0	0.200 20.0	0.500 40.0	5.00	10.00

Curve Type Legend:

Ave = Average ISTD

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-78137/4	9815-004.D
Level 2	IC 200-78137/5	9815-005.D
Level 3	IC 200-78137/6	9815-006.D
Level 4	IC 200-78137/7	9815-007.D
Level 5	ICIS 200-78137/8	9815-008.D
Level 6	IC 200-78137/9	9815-009.D
Level 7	IC 200-78137/10	9815-010.D
Level 8	IC 200-78137/11	9815-011.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Propylene	++++ 0.5609	++++ 0.5476	0.6367 0.5051	0.6021	0.5506	Ave		0.5672			8.1		30.0				
Dichlorodifluoromethane	++++ 2.5515	++++ 2.5259	2.4940 2.3904	2.6237	2.4526	Ave		2.5063			3.2		30.0				
Freon 22	++++ 1.2587	++++ 1.2308	1.3131 1.1427	1.3203	1.2144	Ave		1.2467			5.3		30.0				
1,2-Dichlorotetrafluoroethane	++++ 2.6109	2.3899 2.5969	2.5486 2.4810	2.6815	2.5174	Ave		2.5466			3.7		30.0				
Chloromethane	++++ 0.7195	++++ 0.7106	0.7897 0.6575	0.7698	0.7067	Ave		0.7256			6.6		30.0				
n-Butane	++++ 1.1709	++++ 1.1387	1.3135 1.0525	1.2478	1.1424	Ave		1.1776			7.8		30.0				
Vinyl chloride	0.9061 0.9684	0.8845 0.9598	0.9953 0.8975	1.0060	0.9308	Ave		0.9435			4.8		30.0				
1,3-Butadiene	++++ 0.6694	0.6595 0.6654	0.7106 0.6216	0.7199	0.6663	Ave		0.6732			4.9		30.0				
Bromomethane	++++ 1.0086	1.0959 0.9855	1.0378 0.9122	1.0486	0.9811	Ave		1.0100			5.8		30.0				
Chloroethane	++++ 0.4585	++++ 0.4452	0.4955 0.4032	0.4817	0.4480	Ave		0.4554			7.1		30.0				
Isopentane	++++ 0.7516	0.9611 0.7182	0.8045 0.6365	0.8239	0.7509	Ave		0.7781			13.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 1.0231	0.9767 1.0323	1.0060 0.9936	1.0266	0.9701	Ave		1.0041			2.5		30.0				
Trichlorofluoromethane	++++ 2.4208	2.3035 2.4192	2.4305 2.3248	2.4500	2.3135	Ave		2.3803			2.7		30.0				
n-Pentane	++++ 1.2557	++++ 1.2300	1.3992 1.1454	1.3278	1.2160	Ave		1.2623			7.1		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.2912	++++ 0.2800	0.2986 0.2532	0.2956	0.3758	Ave		0.2991			14.0		30.0				
Ethyl ether	++++ 0.5764	++++ 0.5722	0.5468 0.5424	0.5919	0.5497	Ave		0.5637			3.2		30.0				
Acrolein	++++ 0.2470	++++ 0.2536	++++ 0.2532	0.2831	0.2598	Ave		0.2593			5.4		30.0				
Freon TF	++++ 1.9513	++++ 1.9583	1.8237 1.8993	1.9599	1.8495	Ave		1.9138			3.0		30.0				
1,1-Dichloroethene	++++ 0.9387	0.9223 0.9499	0.9551 0.9267	0.9388	0.8969	Ave		0.9326			2.1		30.0				
Acetone	++++ 1.2516	++++ 1.1916	++++ 1.0199	1.3264	1.1491	Ave		1.1877			9.7		30.0				
Carbon disulfide	++++ 2.4895	++++ 2.5365	2.5950 2.3677	2.5442	2.3723	Ave		2.4842			3.8		30.0				
Isopropyl alcohol	++++ 1.0837	++++ 0.9427	++++ 0.9544	1.1466	0.9031	Ave		1.0061			10.0		30.0				
3-Chloropropene	++++ 0.8931	0.9400 0.8791	0.9538 0.8187	0.9516	0.8636	Ave		0.9000			5.7		30.0				
Acetonitrile	++++ 0.5408	++++ 0.5048	++++ 0.4885	0.5822	0.5027	Ave		0.5238			7.2		30.0				
Methylene Chloride	++++ 0.8510	++++ 0.8421	1.1723 0.7817	0.9205	0.8362	Ave		0.9006			16.0		30.0				
tert-Butyl alcohol	++++ 1.6855	++++ 1.5382	++++ 1.5592	1.7665	1.4683	Ave		1.6036			7.5		30.0				
Methyl tert-butyl ether	++++ 2.5984	2.4359 2.5838	2.5340 2.4784	2.6221	2.4593	Ave		2.5302			2.9		30.0				
trans-1,2-Dichloroethene	++++ 1.2435	1.1579 1.2376	1.2101 1.1754	1.2756	1.1991	Ave		1.2142			3.4		30.0				
Acrylonitrile	++++ 0.5935	++++ 0.5822	0.5965 0.5579	0.6147	0.5620	Ave		0.5845			3.7		30.0				
n-Hexane	++++ 1.2896	1.2933 1.2776	1.3401 1.2187	1.3209	1.2335	Ave		1.2819			3.4		30.0				
1,1-Dichloroethane	1.5545 1.5686	1.5412 1.5602	1.5509 1.4812	1.6202	1.5075	Ave		1.5480			2.7		30.0				
Vinyl acetate	++++ 1.9654	++++ 1.9479	++++ 1.7819	2.0771	1.9025	Ave		1.9350			5.5		30.0				
cis-1,2-Dichloroethene	++++ 1.0424	0.9921 1.0415	1.0265 1.0111	1.0520	0.9974	Ave		1.0233			2.3		30.0				
Methyl Ethyl Ketone	++++ 0.4892	++++ 0.4610	0.7922 0.4440	0.4802	0.4392	Ave		0.5176			26.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0776	++++ 0.0767	++++ 0.0756	0.0798	0.0725	Ave		0.0764			3.5		30.0				
Tetrahydrofuran	++++ 0.1705	++++ 0.1647	++++ 0.1633	0.1729	0.1548	Ave		0.1652			4.3		30.0				
Chloroform	++++ 1.8315	1.7364 1.8333	1.8024 1.7725	1.8366	1.7334	Ave		1.7923			2.5		30.0				
Cyclohexane	++++ 0.2845	0.2541 0.2836	0.2687 0.2879	0.2795	0.2639	Ave		0.2746			4.6		30.0				
1,1,1-Trichloroethane	++++ 0.4195	0.3845 0.4214	0.3824 0.4287	0.4028	0.3876	Ave		0.4038			4.8		30.0				
Carbon tetrachloride	0.3692 0.4551	0.3788 0.4573	0.4099 0.4670	0.4395	0.4176	Ave		0.4243			8.7		30.0				
2,2,4-Trimethylpentane	++++ 0.8366	0.7704 0.8304	0.7738 0.8418	0.8189	0.7778	Ave		0.8071			3.9		30.0				
Benzene	++++ 0.5952	0.5631 0.5927	0.5738 0.6052	0.5828	0.5547	Ave		0.5811			3.1		30.0				
1,2-Dichloroethane	++++ 0.2184	0.1916 0.2157	0.2056 0.2169	0.2126	0.2018	Ave		0.2090			4.7		30.0				
n-Heptane	++++ 0.2521	0.2619 0.2481	0.2480 0.2505	0.2492	0.2359	Ave		0.2494			3.1		30.0				
n-Butanol	++++ 0.0910	++++ 0.0802	++++ 0.0878	0.0930	0.0707	Ave		0.0845			11.0		30.0				
Trichloroethene	0.2421 0.2659	0.2482 0.2647	0.2527 0.2716	0.2577	0.2457	Ave		0.2561			4.2		30.0				
1,2-Dichloropropane	++++ 0.1915	0.1718 0.1897	0.1822 0.1916	0.1911	0.1795	Ave		0.1853			4.2		30.0				
Methyl methacrylate	++++ 0.1969	++++ 0.1967	++++ 0.2007	0.1724	0.1894	Ave		0.1896			5.7		30.0				
1,4-Dioxane	++++ 0.1025	++++ 0.0878	++++ 0.0998	0.1043	0.0772	Ave		0.0943			12.0		30.0				
Dibromomethane	++++ 0.2994	0.2677 0.3017	0.2735 0.3145	0.2768	0.2692	Ave		0.2861			6.5		30.0				
Bromodichloromethane	++++ 0.4185	0.3520 0.4179	0.3838 0.4300	0.4035	0.3853	Ave		0.3987			6.8		30.0				
cis-1,3-Dichloropropene	++++ 0.3143	0.2787 0.3127	0.2848 0.3178	0.3035	0.2897	Ave		0.3002			5.2		30.0				
methyl isobutyl ketone	++++ 0.3301	++++ 0.3242	0.2974 0.3333	0.3220	0.3012	Ave		0.3180			4.7		30.0				
Toluene	++++ 0.4861	++++ 0.4484	0.4509 0.4962	0.4786	0.4488	Ave		0.4708			4.4		30.0				

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

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

Lab Name: TestAmerica Burlington

Job No.: 200-25063-1

Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14

Calibration End Date: 10/03/2014 00:02

Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Octane	++++ 0.3558	0.3255 0.3552	0.3455 0.3614	0.3447	0.3295	Ave		0.3454			3.9		30.0				
trans-1,3-Dichloropropene	++++ 0.3261	0.3254 0.3268	0.2852 0.3349	0.3153	0.2987	Ave		0.3161			5.7		30.0				
1,1,2-Trichloroethane	++++ 0.2282	0.2002 0.2294	0.2112 0.2291	0.2293	0.2119	Ave		0.2199			5.4		30.0				
Tetrachloroethene	0.3882 0.4733	0.3980 0.4811	0.4192 0.5030	0.4480	0.4297	Ave		0.4426			9.3		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.3441	++++ 0.3421	0.3432 0.3471	0.3405	0.3139	Ave		0.3385			3.6		30.0				
Dibromochloromethane	++++ 0.5722	0.4685 0.5772	0.4854 0.5958	0.5425	0.5238	Ave		0.5379			8.9		30.0				
1,2-Dibromoethane	++++ 0.4680	0.4167 0.4690	0.4160 0.4801	0.4533	0.4312	Ave		0.4477			5.9		30.0				
Chlorobenzene	++++ 0.7218	0.6943 0.7231	0.6782 0.7342	0.7044	0.6700	Ave		0.7037			3.4		30.0				
Ethylbenzene	++++ 1.0878	1.0870 1.0953	1.0044 1.1202	1.0592	1.0064	Ave		1.0658			4.2		30.0				
n-Nonane	++++ 0.4169	0.3769 0.4213	0.3834 0.4324	0.4035	0.3854	Ave		0.4028			5.3		30.0				
m,p-Xylene	++++ 0.4808	0.4744 0.4905	0.4189 0.5233	0.4547	0.4389	Ave		0.4688			7.4		30.0				
Xylene, o-	++++ 0.4590	0.4235 0.4614	0.4135 0.4751	0.4421	0.4206	Ave		0.4422			5.4		30.0				
Styrene	++++ 0.7277	0.7469 0.7339	0.5214 0.7662	0.6872	0.6666	Ave		0.6928			12.0		30.0				
Bromoform	++++ 0.6430	0.4779 0.6574	0.5044 0.7044	0.5825	0.5827	Ave		0.5932			14.0		30.0				
Cumene	++++ 1.3356	1.1310 1.3531	1.2022 1.4136	1.2901	1.2285	Ave		1.2792			7.6		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.6204	0.5432 0.6311	0.5858 0.6497	0.6075	0.5779	Ave		0.6022			6.0		30.0				
n-Propylbenzene	++++ 1.5688	1.4422 1.6015	1.4026 1.6727	1.5203	1.4470	Ave		1.5222			6.4		30.0				
1,2,3-Trichloropropane	++++ 0.4660	++++ 0.4679	0.4440 0.4840	0.4541	0.4271	Ave		0.4572			4.4		30.0				
n-Decane	++++ 0.5969	++++ 0.6153	0.5243 0.6308	0.5539	0.5393	Ave		0.5768			7.6		30.0				
4-Ethyltoluene	++++ 1.5066	++++ 1.3483	1.2346 1.6983	1.3553	1.3402	Ave		1.4369			11.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 1.1678	1.0382 1.2169	0.9618 1.3011	1.0602	1.0422	Ave		1.1126			11.0		30.0				
1,3,5-Trimethylbenzene	++++ 1.1421	0.9403 1.1765	1.0062 1.2458	1.0952	1.0477	Ave		1.0934			9.6		30.0				
Alpha Methyl Styrene	++++ 0.6219	0.5919 0.6103	0.2017 0.6735	0.5862	0.5674	Ave		0.5504			29.0		30.0				
tert-Butylbenzene	++++ 1.1440	0.9572 1.1782	0.9863 1.2536	1.0884	1.0459	Ave		1.0934			9.7		30.0				
1,2,4-Trimethylbenzene	++++ 1.1767	1.0528 1.2124	1.0151 1.2856	1.1055	1.0743	Ave		1.1318			8.5		30.0				
sec-Butylbenzene	++++ 1.7231	1.4309 1.7697	1.4948 1.8767	1.6237	1.5814	Ave		1.6429			9.6		30.0				
4-Isopropyltoluene	++++ 1.5576	1.1834 1.6263	1.2727 1.7594	1.4264	1.4009	Ave		1.4610			14.0		30.0				
1,3-Dichlorobenzene	++++ 0.9258	1.0936 0.9692	0.7869 1.0458	0.8440	0.8454	Ave		0.9301			12.0		30.0				
1,4-Dichlorobenzene	++++ 0.9050	1.0359 0.9411	0.7897 0.9935	0.8340	0.8296	Ave		0.9041			10.0		30.0				
Benzyl chloride	++++ 0.8664	0.7957 0.9014	0.7346 0.9329	0.7917	0.7975	Ave		0.8314			8.5		30.0				
n-Butylbenzene	++++ 1.3483	1.1693 1.4000	1.1440 1.4836	1.2480	1.2230	Ave		1.2880			9.8		30.0				
n-Undecane	++++ 0.6661	++++ 0.6906	++++ 0.7092	0.6213	0.6087	Ave		0.6592			6.6		30.0				
1,2-Dichlorobenzene	++++ 0.8447	0.9132 0.8762	0.7476 0.9185	0.7908	0.7746	Ave		0.8379			8.2		30.0				
n-Dodecane	++++ 0.6094	++++ 0.6404	++++ 0.5766	0.5944	0.5660	Ave		0.5973			4.9		30.0				
1,2,4-Trichlorobenzene	++++ 0.7303	++++ 0.7957	0.6556 0.7418	0.6734	0.6919	Ave		0.7148			7.2		30.0				
Hexachlorobutadiene	++++ 0.6282	0.5935 0.6778	0.5357 0.7327	0.5694	0.5775	Ave		0.6164			11.0		30.0				
Naphthalene	++++ 1.4552	++++ 1.6216	1.2099 1.3396	1.4017	1.4407	Ave		1.4114			9.7		30.0				
1,2,3-Trichlorobenzene	++++ 0.6728	0.7220 0.7346	0.6233 0.6672	0.6316	0.6419	Ave		0.6705			6.5		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-78137/4	9815-004.D
Level 2	IC 200-78137/5	9815-005.D
Level 3	IC 200-78137/6	9815-006.D
Level 4	IC 200-78137/7	9815-007.D
Level 5	ICIS 200-78137/8	9815-008.D
Level 6	IC 200-78137/9	9815-009.D
Level 7	IC 200-78137/10	9815-010.D
Level 8	IC 200-78137/11	9815-011.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Propylene	BCM	Ave	++++ 304859	++++ 400526	10697 782489	101588	190333	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 1386678	++++ 1847437	41901 3702978	442649	847833	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 684065	++++ 900226	22061 1770196	222753	419790	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 1418943	16369 1899357	42818 3843452	452404	870246	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 391021	++++ 519735	13267 1018566	129879	244295	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 636331	++++ 832877	22067 1630403	210514	394928	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	1287 526302	6058 701970	16722 1390419	169720	321753	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	++++ 363827	4517 486652	11939 962954	121453	230332	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 548132	7506 720777	17436 1413185	176920	339152	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 249189	++++ 325607	8325 624549	81276	154865	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 408461	6583 525260	13516 986041	138995	259568	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 556054	6690 755012	16902 1539271	173208	335357	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 1315619	15777 1769384	40834 3601389	413342	799744	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 682422	++++ 899633	23507 1774310	224019	420354	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 211473	++++ 409623	50227 980441	99795	194954	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 313257	3745 418472	9518 840308	99859	190018	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 134254	++++ 185508	++++ 392182	47757	89794	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 1060495	12491 1432309	32834 2942183	330665	639341	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	++++ 510146	6317 694766	16046 1435612	158390	310038	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 680232	++++ 871561	++++ 1579954	223780	397219	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 1352951	++++ 1855175	43598 3667861	429240	820070	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 588936	++++ 689501	++++ 1478412	193450	312179	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 485388	++++ 6438 642998	16025 1268284	160540	298533	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 293903	++++ 369235	++++ 756759	98230	173784	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 462470	++++ 615912	19696 1211005	155293	289069	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	++++ 916041	++++ 1125009	++++ 2415401	298035	507592	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1412160	16684 1889748	42573 3839282	442374	850148	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 675783	7931 905195	20331 1820872	215218	414525	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 322563	++++ 425846	10022 864218	103713	194261	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 700848	8858 934420	22515 1887864	222851	426393	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	2208 852485	10556 1141102	26057 2294602	273348	521113	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 1068130	++++ 1424699	++++ 2760360	350436	657692	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	++++ 566504	6795 761745	17246 1566385	177483	344792	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 265875	++++ 337167	13310 687791	81008	151828	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 42162	++++ 56108	++++ 117090	13462	25069	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFB	Ave	++++ 421506	++++ 550115	++++ 1112388	136878	248516	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 995368	11893 1340839	30281 2745835	309853	599224	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFB	Ave	++++ 703185	8177 947434	21204 1961046	221328	423666	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFB	Ave	++++ 1037098	12376 1407814	30178 2919734	318985	622285	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFB	Ave	2452 1125096	12191 1527919	32347 3180482	347982	670465	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFB	Ave	++++ 2067948	24794 2774439	61068 5733241	648445	1248841	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFB	Ave	++++ 1471323	18123 1980154	45282 4121563	461520	890692	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFB	Ave	++++ 539968	6168 720727	16229 1477004	168324	324036	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFB	Ave	++++ 623293	8430 828881	19570 1706394	197340	378743	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFB	Ave	++++ 225018	++++ 267960	++++ 597846	73643	113436	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFB	Ave	1608 657343	7987 884374	19941 1849589	204075	394434	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFB	Ave	++++ 473348	5529 633787	14381 1304856	151343	288212	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFB	Ave	++++ 486635	++++ 657037	13607 1366949	150008	291523	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFB	Ave	++++ 253432	++++ 293366	++++ 679844	82574	123937	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dibromomethane	DFB	Ave	++++ 739991	8615 1007864	21581 2141790	219154	432191	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromodichloromethane	DFB	Ave	++++ 1034586	11329 1396375	30287 2928658	319485	618559	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFB	Ave	++++ 776961	8970 1044673	22476 2164633	240339	465201	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
methyl isobutyl ketone	DFB	Ave	++++ 815905	++++ 1083234	23473 2269962	254936	483600	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Toluene	CBZ	Ave	++++ 1126796	13334 1516445	32817 3185363	351903	673140	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Octane	DFB	Ave	++++ 879488	10476 1186793	27269 2461200	272910	528975	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFB	Ave	++++ 806107	10473 1092038	22509 2281265	249664	479545	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBZ	Ave	++++ 528934	5953 715080	15373 1470839	168603	317854	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Tetrachloroethene	CBZ	Ave	2372 1097078	11834 1499778	30510 3228692	329363	644379	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	++++ 797728	++++ 1066396	++++ 24981 2227814	250325	470840	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBZ	Ave	++++ 1326486	13932 1799141	35329 3824500	398854	785495	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBZ	Ave	++++ 1084767	12391 1461941	30274 3081765	333262	646718	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBZ	Ave	++++ 1673057	20646 2254077	49362 4712937	517884	1004848	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBZ	Ave	++++ 2521543	32322 3414315	73102 7190278	778766	1509267	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBZ	Ave	++++ 966321	11206 1313225	27903 2775379	296668	577944	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBZ	Ave	++++ 2229164	28210 3058025	60977 6717668	668658	1316587	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBZ	Ave	++++ 1063940	12592 1438346	30096 3049518	325048	630772	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBZ	Ave	++++ 1686754	22210 2287558	37945 4918258	505237	999690	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBZ	Ave	++++ 1490531	14210 2049075	36709 4521230	428249	873920	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBZ	Ave	++++ 3095950	33632 4217767	87494 9073658	948562	1842438	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	++++ 1438173	16151 1967151	42632 4170334	446668	866648	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBZ	Ave	++++ 3636506	42885 4992040	102083 10737219	1117772	2170119	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBZ	Ave	++++ 1080177	++++ 1458400	32314 3107040	333881	640594	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Decane	CBZ	Ave	++++ 1383677	++++ 1918072	38161 4049407	407248	808842	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBZ	Ave	++++ 3492458	40092 4908433	89854 10901535	996453	2010011	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBZ	Ave	++++ 2706917	30870 3793282	70001 8351672	779475	1562956	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBZ	Ave	++++ 2647515	27959 3667138	73228 7997050	805235	1571294	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBZ	Ave	++++ 1441608	17599 1902428	14682 4322953	430972	850952	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBZ	Ave	++++ 2651854	28464 3672509	71786 8046611	800240	1568510	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25063-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBZ	Ave	++++ 2727663	31305 3779207	73877 8252477	812821	1611206	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBZ	Ave	++++ 3994314	42548 5516405	108792 12046718	1193776	2371644	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBZ	Ave	++++ 3610586	35190 5069421	92628 11293447	1048756	2100927	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBZ	Ave	++++ 2146074	32517 3021107	57274 6712933	620578	1267817	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBZ	Ave	++++ 2097746	30804 2933614	57476 6377587	613157	1244254	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBZ	Ave	++++ 2008340	23660 2809694	53461 5988589	582068	1196006	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butylbenzene	CBZ	Ave	++++ 3125415	34770 4364013	83259 9523131	917569	1834142	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBZ	Ave	++++ 1544093	++++ 2152532	++++ 4552478	456788	912846	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2-Dichlorobenzene	CBZ	Ave	++++ 1958118	27153 2731134	54408 5896052	581443	1161755	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBZ	Ave	++++ 1412611	++++ 1996068	++++ 3701076	437015	848803	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBZ	Ave	++++ 1692776	++++ 2480354	47715 4761304	495128	1037735	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBZ	Ave	++++ 1456259	17647 2112817	38989 4703460	418653	866135	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBZ	Ave	++++ 3373242	++++ 5054630	88054 8598713	1030583	2160737	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBZ	Ave	++++ 1559619	++++ 21468 2289771	45367 4282719	464357	962637	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-78137/4	9815-004.D
Level 2	IC 200-78137/5	9815-005.D
Level 3	IC 200-78137/6	9815-006.D
Level 4	IC 200-78137/7	9815-007.D
Level 5	ICIS 200-78137/8	9815-008.D
Level 6	IC 200-78137/9	9815-009.D
Level 7	IC 200-78137/10	9815-010.D
Level 8	IC 200-78137/11	9815-011.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Propylene	++++ 0.5609	++++ 0.5476	0.6367 0.5051	0.6021	0.5506	Ave		0.5672			8.1		30.0				
Dichlorodifluoromethane	++++ 2.5515	++++ 2.5259	2.4940 2.3904	2.6237	2.4526	Ave		2.5063			3.2		30.0				
Freon 22	++++ 1.2587	++++ 1.2308	1.3131 1.1427	1.3203	1.2144	Ave		1.2467			5.3		30.0				
1,2-Dichlorotetrafluoroethane	++++ 2.6109	2.3899 2.5969	2.5486 2.4810	2.6815	2.5174	Ave		2.5466			3.7		30.0				
Chloromethane	++++ 0.7195	++++ 0.7106	0.7897 0.6575	0.7698	0.7067	Ave		0.7256			6.6		30.0				
n-Butane	++++ 1.1709	++++ 1.1387	1.3135 1.0525	1.2478	1.1424	Ave		1.1776			7.8		30.0				
Vinyl chloride	0.9061 0.9684	0.8845 0.9598	0.9953 0.8975	1.0060	0.9308	Ave		0.9435			4.8		30.0				
1,3-Butadiene	++++ 0.6694	0.6595 0.6654	0.7106 0.6216	0.7199	0.6663	Ave		0.6732			4.9		30.0				
Bromomethane	++++ 1.0086	1.0959 0.9855	1.0378 0.9122	1.0486	0.9811	Ave		1.0100			5.8		30.0				
Chloroethane	++++ 0.4585	++++ 0.4452	0.4955 0.4032	0.4817	0.4480	Ave		0.4554			7.1		30.0				
Isopentane	++++ 0.7516	0.9611 0.7182	0.8045 0.6365	0.8239	0.7509	Ave		0.7781			13.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 1.0231	0.9767 1.0323	1.0060 0.9936	1.0266	0.9701	Ave		1.0041			2.5		30.0				
Trichlorofluoromethane	++++ 2.4208	2.3035 2.4192	2.4305 2.3248	2.4500	2.3135	Ave		2.3803			2.7		30.0				
n-Pentane	++++ 1.2557	++++ 1.2300	1.3992 1.1454	1.3278	1.2160	Ave		1.2623			7.1		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.2912	++++ 0.2800	0.2986 0.2532	0.2956	0.3758	Ave		0.2991			14.0		30.0				
Ethyl ether	++++ 0.5764	0.5468 0.5722	0.5665 0.5424	0.5919	0.5497	Ave		0.5637			3.2		30.0				
Acrolein	++++ 0.2470	++++ 0.2536	++++ 0.2532	0.2831	0.2598	Ave		0.2593			5.4		30.0				
Freon TF	++++ 1.9513	1.8237 1.9583	1.9543 1.8993	1.9599	1.8495	Ave		1.9138			3.0		30.0				
1,1-Dichloroethene	++++ 0.9387	0.9223 0.9499	0.9551 0.9267	0.9388	0.8969	Ave		0.9326			2.1		30.0				
Acetone	++++ 1.2516	++++ 1.1916	++++ 1.0199	1.3264	1.1491	Ave		1.1877			9.7		30.0				
Carbon disulfide	++++ 2.4895	++++ 2.5365	2.5950 2.3677	2.5442	2.3723	Ave		2.4842			3.8		30.0				
Isopropyl alcohol	++++ 1.0837	++++ 0.9427	++++ 0.9544	1.1466	0.9031	Ave		1.0061			10.0		30.0				
3-Chloropropene	++++ 0.8931	0.9400 0.8791	0.9538 0.8187	0.9516	0.8636	Ave		0.9000			5.7		30.0				
Acetonitrile	++++ 0.5408	++++ 0.5048	++++ 0.4885	0.5822	0.5027	Ave		0.5238			7.2		30.0				
Methylene Chloride	++++ 0.8510	++++ 0.8421	1.1723 0.7817	0.9205	0.8362	Ave		0.9006			16.0		30.0				
tert-Butyl alcohol	++++ 1.6855	++++ 1.5382	++++ 1.5592	1.7665	1.4683	Ave		1.6036			7.5		30.0				
Methyl tert-butyl ether	++++ 2.5984	2.4359 2.5838	2.5340 2.4784	2.6221	2.4593	Ave		2.5302			2.9		30.0				
trans-1,2-Dichloroethene	++++ 1.2435	1.1579 1.2376	1.2101 1.1754	1.2756	1.1991	Ave		1.2142			3.4		30.0				
Acrylonitrile	++++ 0.5935	++++ 0.5822	0.5965 0.5579	0.6147	0.5620	Ave		0.5845			3.7		30.0				
n-Hexane	++++ 1.2896	1.2933 1.2776	1.3401 1.2187	1.3209	1.2335	Ave		1.2819			3.4		30.0				
1,1-Dichloroethane	1.5545 1.5686	1.5412 1.5602	1.5509 1.4812	1.6202	1.5075	Ave		1.5480			2.7		30.0				
Vinyl acetate	++++ 1.9654	++++ 1.9479	++++ 1.7819	2.0771	1.9025	Ave		1.9350			5.5		30.0				
cis-1,2-Dichloroethene	++++ 1.0424	0.9921 1.0415	1.0265 1.0111	1.0520	0.9974	Ave		1.0233			2.3		30.0				
Methyl Ethyl Ketone	++++ 0.4892	++++ 0.4610	0.7922 0.4440	0.4802	0.4392	Ave		0.5176			26.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0776	++++ 0.0767	++++ 0.0756	0.0798	0.0725	Ave		0.0764			3.5		30.0				
Tetrahydrofuran	++++ 0.1705	++++ 0.1647	++++ 0.1633	0.1729	0.1548	Ave		0.1652			4.3		30.0				
Chloroform	++++ 1.8315	1.7364 1.8333	1.8024 1.7725	1.8366	1.7334	Ave		1.7923			2.5		30.0				
Cyclohexane	++++ 0.2845	0.2541 0.2836	0.2687 0.2879	0.2795	0.2639	Ave		0.2746			4.6		30.0				
1,1,1-Trichloroethane	++++ 0.4195	0.3845 0.4214	0.3824 0.4287	0.4028	0.3876	Ave		0.4038			4.8		30.0				
Carbon tetrachloride	0.3692 0.4551	0.3788 0.4573	0.4099 0.4670	0.4395	0.4176	Ave		0.4243			8.7		30.0				
2,2,4-Trimethylpentane	++++ 0.8366	0.7704 0.8304	0.7738 0.8418	0.8189	0.7778	Ave		0.8071			3.9		30.0				
Benzene	++++ 0.5952	0.5631 0.5927	0.5738 0.6052	0.5828	0.5547	Ave		0.5811			3.1		30.0				
1,2-Dichloroethane	++++ 0.2184	0.1916 0.2157	0.2056 0.2169	0.2126	0.2018	Ave		0.2090			4.7		30.0				
n-Heptane	++++ 0.2521	0.2619 0.2481	0.2480 0.2505	0.2492	0.2359	Ave		0.2494			3.1		30.0				
n-Butanol	++++ 0.0910	++++ 0.0802	++++ 0.0878	0.0930	0.0707	Ave		0.0845			11.0		30.0				
Trichloroethene	0.2421 0.2659	0.2482 0.2647	0.2527 0.2716	0.2577	0.2457	Ave		0.2561			4.2		30.0				
1,2-Dichloropropane	++++ 0.1915	0.1718 0.1897	0.1822 0.1916	0.1911	0.1795	Ave		0.1853			4.2		30.0				
Methyl methacrylate	++++ 0.1969	++++ 0.1967	++++ 0.2007	0.1724	0.1894	Ave		0.1896			5.7		30.0				
1,4-Dioxane	++++ 0.1025	++++ 0.0878	++++ 0.0998	0.1043	0.0772	Ave		0.0943			12.0		30.0				
Dibromomethane	++++ 0.2994	0.2677 0.3017	0.2735 0.3145	0.2768	0.2692	Ave		0.2861			6.5		30.0				
Bromodichloromethane	++++ 0.4185	0.3520 0.4179	0.3838 0.4300	0.4035	0.3853	Ave		0.3987			6.8		30.0				
cis-1,3-Dichloropropene	++++ 0.3143	0.2787 0.3127	0.2848 0.3178	0.3035	0.2897	Ave		0.3002			5.2		30.0				
methyl isobutyl ketone	++++ 0.3301	++++ 0.3242	0.2974 0.3333	0.3220	0.3012	Ave		0.3180			4.7		30.0				
Toluene	++++ 0.4861	++++ 0.4484	0.4509 0.4962	0.4786	0.4488	Ave		0.4708			4.4		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Octane	++++ 0.3558	0.3255 0.3552	0.3455 0.3614	0.3447	0.3295	Ave		0.3454			3.9		30.0				
trans-1,3-Dichloropropene	++++ 0.3261	0.3254 0.3268	0.2852 0.3349	0.3153	0.2987	Ave		0.3161			5.7		30.0				
1,1,2-Trichloroethane	++++ 0.2282	0.2002 0.2294	0.2112 0.2291	0.2293	0.2119	Ave		0.2199			5.4		30.0				
Tetrachloroethene	0.3882 0.4733	0.3980 0.4811	0.4192 0.5030	0.4480	0.4297	Ave		0.4426			9.3		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.3441	++++ 0.3421	0.3432 0.3471	0.3405	0.3139	Ave		0.3385			3.6		30.0				
Dibromochloromethane	++++ 0.5722	0.4685 0.5772	0.4854 0.5958	0.5425	0.5238	Ave		0.5379			8.9		30.0				
1,2-Dibromoethane	++++ 0.4680	0.4167 0.4690	0.4160 0.4801	0.4533	0.4312	Ave		0.4477			5.9		30.0				
Chlorobenzene	++++ 0.7218	0.6943 0.7231	0.6782 0.7342	0.7044	0.6700	Ave		0.7037			3.4		30.0				
Ethylbenzene	++++ 1.0878	1.0870 1.0953	1.0044 1.1202	1.0592	1.0064	Ave		1.0658			4.2		30.0				
n-Nonane	++++ 0.4169	0.3769 0.4213	0.3834 0.4324	0.4035	0.3854	Ave		0.4028			5.3		30.0				
m,p-Xylene	++++ 0.4808	0.4744 0.4905	0.4189 0.5233	0.4547	0.4389	Ave		0.4688			7.4		30.0				
Xylene, o-	++++ 0.4590	0.4235 0.4614	0.4135 0.4751	0.4421	0.4206	Ave		0.4422			5.4		30.0				
Styrene	++++ 0.7277	0.7469 0.7339	0.5214 0.7662	0.6872	0.6666	Ave		0.6928			12.0		30.0				
Bromoform	++++ 0.6430	0.4779 0.6574	0.5044 0.7044	0.5825	0.5827	Ave		0.5932			14.0		30.0				
Cumene	++++ 1.3356	1.1310 1.3531	1.2022 1.4136	1.2901	1.2285	Ave		1.2792			7.6		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.6204	0.5432 0.6311	0.5858 0.6497	0.6075	0.5779	Ave		0.6022			6.0		30.0				
n-Propylbenzene	++++ 1.5688	1.4422 1.6015	1.4026 1.6727	1.5203	1.4470	Ave		1.5222			6.4		30.0				
1,2,3-Trichloropropane	++++ 0.4660	++++ 0.4679	0.4440 0.4840	0.4541	0.4271	Ave		0.4572			4.4		30.0				
n-Decane	++++ 0.5969	++++ 0.6153	0.5243 0.6308	0.5539	0.5393	Ave		0.5768			7.6		30.0				
4-Ethyltoluene	++++ 1.5066	1.3483 1.5747	1.2346 1.6983	1.3553	1.3402	Ave		1.4369			11.0		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 1.1678	1.0382 1.2169	0.9618 1.3011	1.0602	1.0422	Ave		1.1126			11.0		30.0				
1,3,5-Trimethylbenzene	++++ 1.1421	0.9403 1.1765	1.0062 1.2458	1.0952	1.0477	Ave		1.0934			9.6		30.0				
Alpha Methyl Styrene	++++ 0.6219	0.5919 0.6103	0.2017 0.6735	0.5862	0.5674	Ave		0.5504			29.0		30.0				
tert-Butylbenzene	++++ 1.1440	0.9572 1.1782	0.9863 1.2536	1.0884	1.0459	Ave		1.0934			9.7		30.0				
1,2,4-Trimethylbenzene	++++ 1.1767	1.0528 1.2124	1.0151 1.2856	1.1055	1.0743	Ave		1.1318			8.5		30.0				
sec-Butylbenzene	++++ 1.7231	1.4309 1.7697	1.4948 1.8767	1.6237	1.5814	Ave		1.6429			9.6		30.0				
4-Isopropyltoluene	++++ 1.5576	1.1834 1.6263	1.2727 1.7594	1.4264	1.4009	Ave		1.4610			14.0		30.0				
1,3-Dichlorobenzene	++++ 0.9258	1.0936 0.9692	0.7869 1.0458	0.8440	0.8454	Ave		0.9301			12.0		30.0				
1,4-Dichlorobenzene	++++ 0.9050	1.0359 0.9411	0.7897 0.9935	0.8340	0.8296	Ave		0.9041			10.0		30.0				
Benzyl chloride	++++ 0.8664	0.7957 0.9014	0.7346 0.9329	0.7917	0.7975	Ave		0.8314			8.5		30.0				
n-Butylbenzene	++++ 1.3483	1.1693 1.4000	1.1440 1.4836	1.2480	1.2230	Ave		1.2880			9.8		30.0				
n-Undecane	++++ 0.6661	++++ 0.6906	++++ 0.7092	0.6213	0.6087	Ave		0.6592			6.6		30.0				
1,2-Dichlorobenzene	++++ 0.8447	0.9132 0.8762	0.7476 0.9185	0.7908	0.7746	Ave		0.8379			8.2		30.0				
n-Dodecane	++++ 0.6094	++++ 0.6404	++++ 0.5766	0.5944	0.5660	Ave		0.5973			4.9		30.0				
1,2,4-Trichlorobenzene	++++ 0.7303	++++ 0.7957	0.6556 0.7418	0.6734	0.6919	Ave		0.7148			7.2		30.0				
Hexachlorobutadiene	++++ 0.6282	0.5935 0.6778	0.5357 0.7327	0.5694	0.5775	Ave		0.6164			11.0		30.0				
Naphthalene	++++ 1.4552	++++ 1.6216	1.2099 1.3396	1.4017	1.4407	Ave		1.4114			9.7		30.0				
1,2,3-Trichlorobenzene	++++ 0.6728	0.7220 0.7346	0.6233 0.6672	0.6316	0.6419	Ave		0.6705			6.5		30.0				

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

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-78137/4	9815-004.D
Level 2	IC 200-78137/5	9815-005.D
Level 3	IC 200-78137/6	9815-006.D
Level 4	IC 200-78137/7	9815-007.D
Level 5	ICIS 200-78137/8	9815-008.D
Level 6	IC 200-78137/9	9815-009.D
Level 7	IC 200-78137/10	9815-010.D
Level 8	IC 200-78137/11	9815-011.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Propylene	BCM	Ave	++++ 304859	++++ 400526	10697 782489	101588	190333	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 1386678	++++ 1847437	41901 3702978	442649	847833	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 684065	++++ 900226	22061 1770196	222753	419790	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 1418943	16369 1899357	42818 3843452	452404	870246	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 391021	++++ 519735	13267 1018566	129879	244295	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 636331	++++ 832877	22067 1630403	210514	394928	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	1287 526302	6058 701970	16722 1390419	169720	321753	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	++++ 363827	4517 486652	11939 962954	121453	230332	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 548132	7506 720777	17436 1413185	176920	339152	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 249189	++++ 325607	8325 624549	81276	154865	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 408461	6583 525260	13516 986041	138995	259568	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 556054	6690 755012	16902 1539271	173208	335357	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 1315619	15777 1769384	40834 3601389	413342	799744	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 682422	++++ 899633	23507 1774310	224019	420354	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 211473	++++ 409623	50227 980441	99795	194954	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 313257	3745 418472	9518 840308	99859	190018	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 134254	++++ 185508	++++ 392182	47757	89794	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 1060495	12491 1432309	32834 2942183	330665	639341	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	++++ 510146	6317 694766	16046 1435612	158390	310038	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 680232	++++ 871561	++++ 1579954	223780	397219	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 1352951	++++ 1855175	43598 3667861	429240	820070	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 588936	++++ 689501	++++ 1478412	193450	312179	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 485388	++++ 6438 642998	16025 1268284	160540	298533	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 293903	++++ 369235	++++ 756759	98230	173784	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 462470	++++ 615912	19696 1211005	155293	289069	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	++++ 916041	++++ 1125009	++++ 2415401	298035	507592	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1412160	16684 1889748	42573 3839282	442374	850148	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 675783	7931 905195	20331 1820872	215218	414525	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 322563	++++ 425846	10022 864218	103713	194261	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 700848	8858 934420	22515 1887864	222851	426393	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	2208 852485	10556 1141102	26057 2294602	273348	521113	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 1068130	++++ 1424699	++++ 2760360	350436	657692	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	++++ 566504	6795 761745	17246 1566385	177483	344792	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 265875	++++ 337167	13310 687791	81008	151828	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 42162	++++ 56108	++++ 117090	13462	25069	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFB	Ave	++++ 421506	++++ 550115	++++ 1112388	136878	248516	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 995368	11893 1340839	30281 2745835	309853	599224	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFB	Ave	++++ 703185	8177 947434	21204 1961046	221328	423666	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFB	Ave	++++ 1037098	12376 1407814	30178 2919734	318985	622285	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFB	Ave	++++ 1125096	2452 1527919	32347 3180482	347982	670465	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFB	Ave	++++ 2067948	24794 2774439	61068 5733241	648445	1248841	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFB	Ave	++++ 1471323	18123 1980154	45282 4121563	461520	890692	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFB	Ave	++++ 539968	6168 720727	16229 1477004	168324	324036	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFB	Ave	++++ 623293	8430 828881	19570 1706394	197340	378743	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFB	Ave	++++ 225018	++++ 267960	++++ 597846	73643	113436	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFB	Ave	++++ 657343	1608 884374	7987 1849589	204075	394434	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFB	Ave	++++ 473348	5529 633787	14381 1304856	151343	288212	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFB	Ave	++++ 486635	++++ 657037	13607 1366949	150008	291523	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFB	Ave	++++ 253432	++++ 293366	++++ 679844	82574	123937	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dibromomethane	DFB	Ave	++++ 739991	8615 1007864	21581 2141790	219154	432191	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromodichloromethane	DFB	Ave	++++ 1034586	11329 1396375	30287 2928658	319485	618559	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFB	Ave	++++ 776961	8970 1044673	22476 2164633	240339	465201	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
methyl isobutyl ketone	DFB	Ave	++++ 815905	++++ 1083234	23473 2269962	254936	483600	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Toluene	CBZ	Ave	++++ 1126796	13334 1516445	32817 3185363	351903	673140	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Octane	DFB	Ave	++++ 879488	10476 1186793	27269 2461200	272910	528975	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFB	Ave	++++ 806107	10473 1092038	22509 2281265	249664	479545	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBZ	Ave	++++ 528934	5953 715080	15373 1470839	168603	317854	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Tetrachloroethene	CBZ	Ave	2372 1097078	11834 1499778	30510 3228692	329363	644379	0.0401 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBZ	Ave	++++ 797728	++++ 1066396	++++ 24981 2227814	250325	470840	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBZ	Ave	++++ 1326486	13932 1799141	35329 3824500	398854	785495	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBZ	Ave	++++ 1084767	12391 1461941	30274 3081765	333262	646718	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBZ	Ave	++++ 1673057	20646 2254077	49362 4712937	517884	1004848	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBZ	Ave	++++ 2521543	32322 3414315	73102 7190278	778766	1509267	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBZ	Ave	++++ 966321	11206 1313225	27903 2775379	296668	577944	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBZ	Ave	++++ 2229164	28210 3058025	60977 6717668	668658	1316587	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBZ	Ave	++++ 1063940	12592 1438346	30096 3049518	325048	630772	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBZ	Ave	++++ 1686754	22210 2287558	37945 4918258	505237	999690	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBZ	Ave	++++ 1490531	14210 2049075	36709 4521230	428249	873920	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBZ	Ave	++++ 3095950	33632 4217767	87494 9073658	948562	1842438	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	++++ 1438173	16151 1967151	42632 4170334	446668	866648	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBZ	Ave	++++ 3636506	42885 4992040	102083 10737219	1117772	2170119	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBZ	Ave	++++ 1080177	++++ 1458400	32314 3107040	333881	640594	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Decane	CBZ	Ave	++++ 1383677	++++ 1918072	38161 4049407	407248	808842	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBZ	Ave	++++ 3492458	40092 4908433	89854 10901535	996453	2010011	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBZ	Ave	++++ 2706917	30870 3793282	70001 8351672	779475	1562956	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBZ	Ave	++++ 2647515	27959 3667138	73228 7997050	805235	1571294	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBZ	Ave	++++ 1441608	17599 1902428	14682 4322953	430972	850952	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBZ	Ave	++++ 2651854	28464 3672509	71786 8046611	800240	1568510	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

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

Lab Name: TestAmerica Burlington Job No.: 200-25068-1 Analy Batch No.: 78137

SDG No.: _____

Instrument ID: CHX.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2014 18:14 Calibration End Date: 10/03/2014 00:02 Calibration ID: 28118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBZ	Ave	++++ 2727663	31305 3779207	73877 8252477	812821	1611206	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBZ	Ave	++++ 3994314	42548 5516405	108792 12046718	1193776	2371644	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBZ	Ave	++++ 3610586	35190 5069421	92628 11293447	1048756	2100927	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBZ	Ave	++++ 2146074	32517 3021107	57274 6712933	620578	1267817	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBZ	Ave	++++ 2097746	30804 2933614	57476 6377587	613157	1244254	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBZ	Ave	++++ 2008340	23660 2809694	53461 5988589	582068	1196006	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butylbenzene	CBZ	Ave	++++ 3125415	34770 4364013	83259 9523131	917569	1834142	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBZ	Ave	++++ 1544093	++++ 2152532	++++ 4552478	456788	912846	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2-Dichlorobenzene	CBZ	Ave	++++ 1958118	27153 2731134	54408 5896052	581443	1161755	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBZ	Ave	++++ 1412611	++++ 1996068	++++ 3701076	437015	848803	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBZ	Ave	++++ 1692776	++++ 2480354	47715 4761304	495128	1037735	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBZ	Ave	++++ 1456259	17647 2112817	38989 4703460	418653	866135	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBZ	Ave	++++ 3373242	++++ 5054630	88054 8598713	1030583	2160737	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBZ	Ave	++++ 1559619	++++ 21468 2289771	45367 4282719	464357	962637	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: ICV 200-76115/13 Calibration Date: 08/15/2014 19:19
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9029_013.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5719	0.4947		8.65	10.0	-13.5	30.0
Dichlorodifluoromethane	Ave	3.792	3.550		9.36	10.0	-6.4	30.0
Freon 22	Ave	1.666	1.543		9.26	10.0	-7.4	30.0
1,2-Dichlorotetrafluoroethane	Ave	3.173	3.409		10.7	10.0	7.4	30.0
Chloromethane	Ave	0.7823	0.7197		9.20	10.0	-8.0	30.0
n-Butane	Ave	1.204	1.117		9.27	10.0	-7.2	30.0
Vinyl chloride	Ave	1.001	0.9581		9.57	10.0	-4.3	30.0
1,3-Butadiene	Ave	0.6746	0.6518		9.66	10.0	-3.4	30.0
Bromomethane	Ave	1.062	1.025		9.65	10.0	-3.5	30.0
Chloroethane	Ave	0.4621	0.4367		9.45	10.0	-5.5	30.0
Isopentane	Ave	0.8366	0.7937		9.48	10.0	-5.1	30.0
Bromoethene (Vinyl Bromide)	Ave	1.011	0.9513		9.40	10.0	-5.9	30.0
Trichlorofluoromethane	Ave	3.449	3.162		9.17	10.0	-8.3	30.0
n-Pentane	Ave	1.080	1.132		10.5	10.0	4.8	30.0
Ethanol	Ave	0.2163	0.2724		18.9	15.0	25.9	30.0
Ethyl ether	Ave	0.5242	0.5790		11.0	10.0	10.5	30.0
Acrolein	Ave	0.2302	0.2922		12.7	10.0	26.9	30.0
Freon TF	Ave	2.031	1.951		9.61	10.0	-3.9	30.0
1,1-Dichloroethene	Ave	0.8983	0.8531		9.50	10.0	-5.0	30.0
Acetone	Ave	1.369	1.164		8.51	10.0	-14.9	30.0
Carbon disulfide	Ave	2.333	2.541		10.9	10.0	8.9	30.0
Isopropyl alcohol	Ave	0.9333	0.7631		8.17	10.0	-18.2	30.0
3-Chloropropene	Ave	0.8482	0.7803		9.20	10.0	-8.0	30.0
Acetonitrile	Ave	0.4510	0.4293		9.52	10.0	-4.8	30.0
Methylene Chloride	Ave	0.9311	0.8295		8.91	10.0	-10.9	30.0
tert-Butyl alcohol	Ave	1.796	1.484		8.26	10.0	-17.4	30.0
Methyl tert-butyl ether	Ave	2.946	2.821		9.57	10.0	-4.3	30.0
trans-1,2-Dichloroethene	Ave	1.329	1.340		10.1	10.0	0.8	30.0
Acrylonitrile	Ave	0.5004	0.5037		10.1	10.0	0.7	30.0
n-Hexane	Ave	1.107	1.157		10.5	10.0	4.5	30.0
1,1-Dichloroethane	Ave	1.618	1.604		9.91	10.0	-0.9	30.0
Vinyl acetate	Ave	1.964	1.833		9.33	10.0	-6.7	30.0
cis-1,2-Dichloroethene	Ave	1.034	0.9874		9.55	10.0	-4.5	30.0
Methyl Ethyl Ketone	Ave	0.4258	0.3928		9.22	10.0	-7.7	30.0
Ethyl acetate	Ave	0.0775	0.0787		10.1	10.0	1.5	30.0
Tetrahydrofuran	Ave	0.1664	0.1572		9.44	10.0	-5.5	30.0
Chloroform	Ave	2.498	2.404		9.62	10.0	-3.8	30.0
Cyclohexane	Ave	0.2649	0.2608		9.85	10.0	-1.5	30.0
1,1,1-Trichloroethane	Ave	0.6682	0.6260		9.37	10.0	-6.3	30.0
Carbon tetrachloride	Ave	0.7160	0.6864		9.58	10.0	-4.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: ICV 200-76115/13 Calibration Date: 08/15/2014 19:19
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9029_013.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8478	0.8086		9.54	10.0	-4.6	30.0
Benzene	Ave	0.5898	0.5703		9.67	10.0	-3.3	30.0
1,2-Dichloroethane	Ave	0.4377	0.4088		9.34	10.0	-6.6	30.0
n-Heptane	Ave	0.3001	0.2824		9.41	10.0	-5.9	30.0
n-Butanol	Ave	0.0921	0.0882		9.58	10.0	-4.2	30.0
Trichloroethene	Ave	0.3142	0.3179		10.1	10.0	1.2	30.0
1,2-Dichloropropane	Ave	0.2217	0.2116		9.54	10.0	-4.6	30.0
Methyl methacrylate	Ave	0.2275	0.2261		9.93	10.0	-0.6	30.0
1,4-Dioxane	Ave	0.0951	0.0853		8.97	10.0	-10.3	30.0
Dibromomethane	Ave	0.2977	0.2907		9.76	10.0	-2.4	30.0
Bromodichloromethane	Ave	0.6689	0.6386		9.55	10.0	-4.5	30.0
cis-1,3-Dichloropropene	Ave	0.4030	0.4038		10.0	10.0	0.2	30.0
methyl isobutyl ketone	Ave	0.4935	0.4494		9.10	10.0	-8.9	30.0
Toluene	Ave	0.4748	0.4734		9.97	10.0	-0.3	30.0
n-Octane	Ave	0.4709	0.4421		9.39	10.0	-6.1	30.0
trans-1,3-Dichloropropene	Ave	0.4842	0.4801		9.91	10.0	-0.9	30.0
1,1,2-Trichloroethane	Ave	0.2491	0.2482		9.96	10.0	-0.4	30.0
Tetrachloroethene	Ave	0.4463	0.4479		10.0	10.0	0.4	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4986	0.4603		9.23	10.0	-7.7	30.0
Dibromochloromethane	Ave	0.6368	0.6271		9.84	10.0	-1.5	30.0
1,2-Dibromoethane	Ave	0.4938	0.5013		10.1	10.0	1.5	30.0
Chlorobenzene	Ave	0.6722	0.6666		9.91	10.0	-0.8	30.0
Ethylbenzene	Ave	1.164	1.147		9.86	10.0	-1.4	30.0
n-Nonane	Ave	0.4828	0.4697		9.73	10.0	-2.7	30.0
m,p-Xylene	Ave	0.4443	0.4342		19.5	20.0	-2.3	30.0
Xylene, o-	Ave	0.4375	0.4283		9.79	10.0	-2.1	30.0
Styrene	Ave	0.6665	0.6726		10.1	10.0	0.9	30.0
Bromoform	Ave	0.6477	0.6544		10.1	10.0	1.0	30.0
Cumene	Ave	1.337	1.324		9.90	10.0	-1.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6712	0.6626		9.87	10.0	-1.3	30.0
n-Propylbenzene	Ave	1.619	1.590		9.82	10.0	-1.8	30.0
1,2,3-Trichloropropane	Ave	0.6282	0.5777		9.19	10.0	-8.1	30.0
n-Decane	Ave	0.6669	0.6236		9.35	10.0	-6.5	30.0
4-Ethyltoluene	Ave	1.396	1.397		10.0	10.0	0.0	30.0
2-Chlorotoluene	Ave	1.284	1.225		9.54	10.0	-4.5	30.0
1,3,5-Trimethylbenzene	Ave	1.203	1.191		9.90	10.0	-1.0	30.0
Alpha Methyl Styrene	Ave	0.5491	0.5676		10.3	10.0	3.4	30.0
tert-Butylbenzene	Ave	1.157	1.128		9.75	10.0	-2.5	30.0
1,2,4-Trimethylbenzene	Ave	1.220	1.205		9.88	10.0	-1.2	30.0
sec-Butylbenzene	Ave	1.622	1.611		9.93	10.0	-0.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: ICV 200-76115/13 Calibration Date: 08/15/2014 19:19
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9029_013.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.458	1.465		10.0	10.0	0.5	30.0
1,3-Dichlorobenzene	Ave	0.8501	0.8225		9.67	10.0	-3.2	30.0
1,4-Dichlorobenzene	Ave	0.8485	0.8277		9.75	10.0	-2.5	30.0
Benzyl chloride	Ave	1.058	1.187		11.2	10.0	12.2	30.0
n-Butylbenzene	Ave	1.418	1.391		9.81	10.0	-1.9	30.0
n-Undecane	Ave	0.7877	0.7479		9.49	10.0	-5.1	30.0
1,2-Dichlorobenzene	Ave	0.7925	0.7736		9.76	10.0	-2.4	30.0
n-Dodecane	Ave	0.8191	0.7987		9.75	10.0	-2.5	30.0
1,2,4-Trichlorobenzene	Ave	0.7264	0.6979		9.61	10.0	-3.9	30.0
Hexachlorobutadiene	Ave	0.7542	0.7351		9.75	10.0	-2.5	30.0
Naphthalene	Ave	1.352	1.349		9.97	10.0	-0.3	30.0
1,2,3-Trichlorobenzene	Ave	0.6404	0.6217		9.71	10.0	-2.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-77217/3 Calibration Date: 09/15/2014 10:03
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9441_003.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5719	0.6782		11.9	10.0	18.6	30.0
Dichlorodifluoromethane	Ave	3.792	4.979		13.1	10.0	31.3*	30.0
Freon 22	Ave	1.666	2.016		12.1	10.0	21.0	30.0
1,2-Dichlorotetrafluoroethane	Ave	3.173	3.943		12.4	10.0	24.3	30.0
Chloromethane	Ave	0.7823	0.8577		11.0	10.0	9.6	30.0
n-Butane	Ave	1.204	1.378		11.4	10.0	14.5	30.0
Vinyl chloride	Ave	1.001	1.121		11.2	10.0	12.0	30.0
1,3-Butadiene	Ave	0.6746	0.7799		11.6	10.0	15.6	30.0
Bromomethane	Ave	1.062	1.164		11.0	10.0	9.7	30.0
Chloroethane	Ave	0.4621	0.4760		10.3	10.0	3.0	30.0
Isopentane	Ave	0.8366	0.8306		9.93	10.0	-0.7	30.0
Bromoethene (Vinyl Bromide)	Ave	1.011	1.168		11.5	10.0	15.5	30.0
Trichlorofluoromethane	Ave	3.449	4.353		12.6	10.0	26.2	30.0
n-Pentane	Ave	1.080	1.132		10.5	10.0	4.9	30.0
Ethanol	Ave	0.2163	0.2182		15.1	15.0	0.9	30.0
Ethyl ether	Ave	0.5242	0.5809		11.1	10.0	10.8	30.0
Acrolein	Ave	0.2302	0.2312		10.0	10.0	0.4	30.0
Freon TF	Ave	2.031	2.363		11.6	10.0	16.4	30.0
1,1-Dichloroethene	Ave	0.8983	0.9925		11.0	10.0	10.5	30.0
Acetone	Ave	1.369	1.935		14.1	10.0	41.4*	30.0
Carbon disulfide	Ave	2.333	2.424		10.4	10.0	3.9	30.0
Isopropyl alcohol	Ave	0.9333	0.8627		9.24	10.0	-7.6	30.0
3-Chloropropene	Ave	0.8482	0.8924		10.5	10.0	5.2	30.0
Acetonitrile	Ave	0.4510	0.4508		9.99	10.0	-0.0	30.0
Methylene Chloride	Ave	0.9311	0.9729		10.4	10.0	4.5	30.0
tert-Butyl alcohol	Ave	1.796	1.822		10.1	10.0	1.5	30.0
Methyl tert-butyl ether	Ave	2.946	3.454		11.7	10.0	17.2	30.0
trans-1,2-Dichloroethene	Ave	1.329	1.450		10.9	10.0	9.2	30.0
Acrylonitrile	Ave	0.5004	0.5157		10.3	10.0	3.0	30.0
n-Hexane	Ave	1.107	1.210		10.9	10.0	9.3	30.0
1,1-Dichloroethane	Ave	1.618	1.773		11.0	10.0	9.5	30.0
Vinyl acetate	Ave	1.964	1.966		10.0	10.0	0.0	30.0
cis-1,2-Dichloroethene	Ave	1.034	1.113		10.8	10.0	7.7	30.0
Methyl Ethyl Ketone	Ave	0.4258	0.4476		10.5	10.0	5.1	30.0
Ethyl acetate	Ave	0.0775	0.0809		10.4	10.0	4.4	30.0
Tetrahydrofuran	Ave	0.1664	0.1679		10.1	10.0	0.9	30.0
Chloroform	Ave	2.498	2.822		11.3	10.0	13.0	30.0
Cyclohexane	Ave	0.2649	0.2913		11.0	10.0	10.0	30.0
1,1,1-Trichloroethane	Ave	0.6682	0.8211		12.3	10.0	22.9	30.0
Carbon tetrachloride	Ave	0.7160	0.9177		12.8	10.0	28.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-77217/3 Calibration Date: 09/15/2014 10:03
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9441_003.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8478	0.8834		10.4	10.0	4.2	30.0
Benzene	Ave	0.5898	0.6298		10.7	10.0	6.8	30.0
1,2-Dichloroethane	Ave	0.4377	0.4880		11.1	10.0	11.5	30.0
n-Heptane	Ave	0.3001	0.3065		10.2	10.0	2.1	30.0
n-Butanol	Ave	0.0921	0.0681		7.39	10.0	-26.1	30.0
Trichloroethene	Ave	0.3142	0.3507		11.2	10.0	11.6	30.0
1,2-Dichloropropane	Ave	0.2217	0.2188		9.87	10.0	-1.3	30.0
Methyl methacrylate	Ave	0.2275	0.2187		9.61	10.0	-3.9	30.0
1,4-Dioxane	Ave	0.0951	0.0835		8.78	10.0	-12.2	30.0
Dibromomethane	Ave	0.2977	0.3236		10.9	10.0	8.7	30.0
Bromodichloromethane	Ave	0.6689	0.7429		11.1	10.0	11.1	30.0
cis-1,3-Dichloropropene	Ave	0.4030	0.4253		10.6	10.0	5.5	30.0
methyl isobutyl ketone	Ave	0.4935	0.4844		9.81	10.0	-1.8	30.0
Toluene	Ave	0.4748	0.5064		10.7	10.0	6.7	30.0
n-Octane	Ave	0.4709	0.4792		10.2	10.0	1.8	30.0
trans-1,3-Dichloropropene	Ave	0.4842	0.5267		10.9	10.0	8.8	30.0
1,1,2-Trichloroethane	Ave	0.2491	0.2545		10.2	10.0	2.2	30.0
Tetrachloroethene	Ave	0.4463	0.5066		11.3	10.0	13.5	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4986	0.4825		9.68	10.0	-3.2	30.0
Dibromochloromethane	Ave	0.6368	0.7394		11.6	10.0	16.1	30.0
1,2-Dibromoethane	Ave	0.4938	0.5380		10.9	10.0	9.0	30.0
Chlorobenzene	Ave	0.6722	0.7297		10.9	10.0	8.6	30.0
Ethylbenzene	Ave	1.164	1.303		11.2	10.0	12.0	30.0
n-Nonane	Ave	0.4828	0.5055		10.5	10.0	4.7	30.0
m,p-Xylene	Ave	0.4443	0.4872		21.9	20.0	9.6	30.0
Xylene, o-	Ave	0.4375	0.4849		11.1	10.0	10.8	30.0
Styrene	Ave	0.6665	0.6776		10.2	10.0	1.7	30.0
Bromoform	Ave	0.6477	0.7827		12.1	10.0	20.9	30.0
Cumene	Ave	1.337	1.539		11.5	10.0	15.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6712	0.6855		10.2	10.0	2.1	30.0
n-Propylbenzene	Ave	1.619	1.846		11.4	10.0	14.0	30.0
1,2,3-Trichloropropane	Ave	0.6282	0.6618		10.5	10.0	5.3	30.0
n-Decane	Ave	0.6669	0.6844		10.3	10.0	2.6	30.0
4-Ethyltoluene	Ave	1.396	1.602		11.5	10.0	14.7	30.0
2-Chlorotoluene	Ave	1.284	1.449		11.3	10.0	12.9	30.0
1,3,5-Trimethylbenzene	Ave	1.203	1.371		11.4	10.0	14.0	30.0
Alpha Methyl Styrene	Ave	0.5491	0.3930		7.16	10.0	-28.4	30.0
tert-Butylbenzene	Ave	1.157	1.320		11.4	10.0	14.1	30.0
1,2,4-Trimethylbenzene	Ave	1.220	1.391		11.4	10.0	14.0	30.0
sec-Butylbenzene	Ave	1.622	1.842		11.4	10.0	13.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24163-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-77217/3 Calibration Date: 09/15/2014 10:03
 Instrument ID: CHC.i Calib Start Date: 08/15/2014 10:29
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 08/15/2014 16:40
 Lab File ID: 9441_003.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.458	1.668		11.4	10.0	14.4	30.0
1,3-Dichlorobenzene	Ave	0.8501	0.9163		10.8	10.0	7.8	30.0
1,4-Dichlorobenzene	Ave	0.8485	0.9201		10.8	10.0	8.4	30.0
Benzyl chloride	Ave	1.058	1.168		11.0	10.0	10.3	30.0
n-Butylbenzene	Ave	1.418	1.585		11.2	10.0	11.8	30.0
n-Undecane	Ave	0.7877	0.7766		9.86	10.0	-1.4	30.0
1,2-Dichlorobenzene	Ave	0.7925	0.8610		10.9	10.0	8.6	30.0
n-Dodecane	Ave	0.8191	0.7796		9.52	10.0	-4.8	30.0
1,2,4-Trichlorobenzene	Ave	0.7264	0.8487		11.7	10.0	16.8	30.0
Hexachlorobutadiene	Ave	0.7542	0.996		13.2	10.0	32.1*	30.0
Naphthalene	Ave	1.352	1.465		10.8	10.0	8.3	30.0
1,2,3-Trichlorobenzene	Ave	0.6404	0.7692		12.0	10.0	20.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5630	0.5052		8.97	10.0	-10.3	30.0
Dichlorodifluoromethane	Ave	3.173	3.088		9.73	10.0	-2.7	30.0
Freon 22	Ave	1.472	1.435		9.75	10.0	-2.5	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.566	2.836		11.1	10.0	10.5	30.0
Chloromethane	Ave	0.7285	0.6874		9.43	10.0	-5.6	30.0
n-Butane	Ave	0.9868	0.9426		9.55	10.0	-4.5	30.0
Vinyl chloride	Ave	0.8749	0.8211		9.38	10.0	-6.1	30.0
1,3-Butadiene	Ave	0.5316	0.5115		9.62	10.0	-3.8	30.0
Bromomethane	Ave	1.084	1.072		9.89	10.0	-1.1	30.0
Chloroethane	Ave	0.3327	0.3159		9.49	10.0	-5.0	30.0
Isopentane	Ave	0.6571	0.6558		9.98	10.0	-0.2	30.0
Bromoethene (Vinyl Bromide)	Ave	1.117	1.112		9.96	10.0	-0.4	30.0
Trichlorofluoromethane	Ave	3.058	3.007		9.83	10.0	-1.7	30.0
n-Pentane	Ave	0.9665	1.037		10.7	10.0	7.3	30.0
Ethanol	Ave	0.2276	0.2779		18.3	15.0	22.1	30.0
Ethyl ether	Ave	0.3924	0.4048		10.3	10.0	3.2	30.0
Acrolein	Ave	0.1691	0.1810		10.7	10.0	7.0	30.0
Freon TF	Ave	1.964	1.972		10.0	10.0	0.4	30.0
1,1-Dichloroethene	Ave	0.8737	0.8401		9.61	10.0	-3.8	30.0
Acetone	Ave	1.094	1.022		9.34	10.0	-6.6	30.0
Carbon disulfide	Ave	2.364	2.648		11.2	10.0	12.0	30.0
Isopropyl alcohol	Ave	0.6417	0.6513		10.1	10.0	1.5	30.0
3-Chloropropene	Ave	0.7147	0.6769		9.47	10.0	-5.3	30.0
Acetonitrile	Ave	0.4046	0.4002		9.89	10.0	-1.1	30.0
Methylene Chloride	Ave	0.8554	0.8186		9.57	10.0	-4.3	30.0
tert-Butyl alcohol	Ave	1.014	1.045		10.3	10.0	3.0	30.0
Methyl tert-butyl ether	Ave	1.897	1.869		9.85	10.0	-1.5	30.0
trans-1,2-Dichloroethene	Ave	1.116	1.183		10.6	10.0	6.0	30.0
Acrylonitrile	Ave	0.4009	0.3987		9.94	10.0	-0.6	30.0
n-Hexane	Ave	0.8683	0.8969		10.3	10.0	3.3	30.0
1,1-Dichloroethane	Ave	1.460	1.413		9.67	10.0	-3.2	30.0
Vinyl acetate	Ave	1.549	1.416		9.14	10.0	-8.6	30.0
cis-1,2-Dichloroethene	Ave	1.023	0.9752		9.53	10.0	-4.7	30.0
Methyl Ethyl Ketone	Ave	0.3610	0.3216		8.91	10.0	-10.9	30.0
Ethyl acetate	Ave	0.0461	0.0491		10.7	10.0	6.7	30.0
Tetrahydrofuran	Ave	0.1378	0.1384		10.0	10.0	0.4	30.0
Chloroform	Ave	2.166	2.163		9.98	10.0	-0.2	30.0
Cyclohexane	Ave	0.2319	0.2457		10.6	10.0	5.9	30.0
1,1,1-Trichloroethane	Ave	0.5335	0.5503		10.3	10.0	3.2	30.0
Carbon tetrachloride	Ave	0.6188	0.6594		10.7	10.0	6.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7574	0.7806		10.3	10.0	3.1	30.0
Benzene	Ave	0.5977	0.5958		9.97	10.0	-0.3	30.0
1,2-Dichloroethane	Ave	0.3147	0.3258		10.4	10.0	3.5	30.0
n-Heptane	Ave	0.2833	0.2866		10.1	10.0	1.1	30.0
n-Butanol	Ave	0.0582	0.0727		12.5	10.0	24.9	30.0
Trichloroethene	Ave	0.3408	0.3635		10.7	10.0	6.6	30.0
1,2-Dichloropropane	Ave	0.2272	0.2322		10.2	10.0	2.2	30.0
Methyl methacrylate	Ave	0.1874	0.1986		10.6	10.0	6.0	30.0
1,4-Dioxane	Ave	0.0833	0.1020		12.2	10.0	22.5	30.0
Dibromomethane	Ave	0.3604	0.3710		10.3	10.0	2.9	30.0
Bromodichloromethane	Ave	0.6043	0.6322		10.5	10.0	4.6	30.0
cis-1,3-Dichloropropene	Ave	0.4017	0.4242		10.6	10.0	5.6	30.0
methyl isobutyl ketone	Ave	0.4338	0.4459		10.3	10.0	2.8	30.0
Toluene	Ave	0.4804	0.4881		10.2	10.0	1.6	30.0
n-Octane	Ave	0.4584	0.4714		10.3	10.0	2.8	30.0
trans-1,3-Dichloropropene	Ave	0.4416	0.4560		10.3	10.0	3.3	30.0
1,1,2-Trichloroethane	Ave	0.2558	0.2650		10.4	10.0	3.6	30.0
Tetrachloroethene	Ave	0.5053	0.5224		10.3	10.0	3.4	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4016	0.4000		9.96	10.0	-0.4	30.0
Dibromochloromethane	Ave	0.6422	0.6594		10.3	10.0	2.7	30.0
1,2-Dibromoethane	Ave	0.5165	0.5364		10.4	10.0	3.8	30.0
Chlorobenzene	Ave	0.7124	0.7158		10.0	10.0	0.5	30.0
Ethylbenzene	Ave	1.079	1.069		9.90	10.0	-1.0	30.0
n-Nonane	Ave	0.4195	0.4203		10.0	10.0	0.2	30.0
m,p-Xylene	Ave	0.4347	0.4234		19.5	20.0	-2.6	30.0
Xylene, o-	Ave	0.4347	0.4311		9.91	10.0	-0.8	30.0
Styrene	Ave	0.6335	0.6471		10.2	10.0	2.1	30.0
Bromoform	Ave	0.6612	0.6815		10.3	10.0	3.1	30.0
Cumene	Ave	1.225	1.208		9.85	10.0	-1.4	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6690	0.6766		10.1	10.0	1.1	30.0
n-Propylbenzene	Ave	1.465	1.436		9.80	10.0	-2.0	30.0
1,2,3-Trichloropropane	Ave	0.5112	0.4868		9.52	10.0	-4.8	30.0
n-Decane	Ave	0.5070	0.4959		9.78	10.0	-2.2	30.0
4-Ethyltoluene	Ave	1.218	1.198		9.84	10.0	-1.6	30.0
2-Chlorotoluene	Ave	1.038	1.006		9.69	10.0	-3.1	30.0
1,3,5-Trimethylbenzene	Ave	1.054	1.036		9.83	10.0	-1.7	30.0
Alpha Methyl Styrene	Ave	0.4873	0.5506		11.3	10.0	13.0	30.0
tert-Butylbenzene	Ave	0.9917	0.9741		9.82	10.0	-1.8	30.0
1,2,4-Trimethylbenzene	Ave	1.061	1.039		9.79	10.0	-2.1	30.0
sec-Butylbenzene	Ave	1.480	1.457		9.84	10.0	-1.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.256	1.244		9.91	10.0	-0.9	30.0
1,3-Dichlorobenzene	Ave	0.8643	0.7958		9.21	10.0	-7.9	30.0
1,4-Dichlorobenzene	Ave	0.8640	0.8075		9.34	10.0	-6.5	30.0
Benzyl chloride	Ave	0.7803	0.7727		9.90	10.0	-1.0	30.0
n-Butylbenzene	Ave	1.158	1.146		9.89	10.0	-1.0	30.0
n-Undecane	Ave	0.5486	0.5656		10.3	10.0	3.1	30.0
1,2-Dichlorobenzene	Ave	0.8240	0.7831		9.50	10.0	-5.0	30.0
n-Dodecane	Ave	0.4712	0.5199		11.0	10.0	10.3	30.0
1,2,4-Trichlorobenzene	Ave	0.6926	0.6465		9.33	10.0	-6.7	30.0
Hexachlorobutadiene	Ave	0.6069	0.6019		9.92	10.0	-0.8	30.0
Naphthalene	Ave	1.322	1.105		8.36	10.0	-16.4	30.0
1,2,3-Trichlorobenzene	Ave	0.6266	0.5804		9.26	10.0	-7.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-78929/2 Calibration Date: 10/20/2014 11:54
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10085_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5630	0.6168		11.0	10.0	9.6	30.0
Dichlorodifluoromethane	Ave	3.173	2.914		9.18	10.0	-8.2	30.0
Freon 22	Ave	1.472	1.504		10.2	10.0	2.2	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.566	2.477		9.65	10.0	-3.5	30.0
Chloromethane	Ave	0.7285	0.7875		10.8	10.0	8.1	30.0
n-Butane	Ave	0.9868	1.078		10.9	10.0	9.2	30.0
Vinyl chloride	Ave	0.8749	0.8825		10.1	10.0	0.9	30.0
1,3-Butadiene	Ave	0.5316	0.5893		11.1	10.0	10.8	30.0
Bromomethane	Ave	1.084	1.055		9.73	10.0	-2.7	30.0
Chloroethane	Ave	0.3327	0.3448		10.4	10.0	3.7	30.0
Isopentane	Ave	0.6571	0.7087		10.8	10.0	7.9	30.0
Bromoethene (Vinyl Bromide)	Ave	1.117	1.065		9.53	10.0	-4.7	30.0
Trichlorofluoromethane	Ave	3.058	2.810		9.19	10.0	-8.1	30.0
n-Pentane	Ave	0.9665	1.114		11.5	10.0	15.2	30.0
Ethanol	Ave	0.2276	0.2847		18.8	15.0	25.1	30.0
Ethyl ether	Ave	0.3924	0.3982		10.1	10.0	1.5	30.0
Acrolein	Ave	0.1691	0.1708		10.1	10.0	1.0	30.0
Freon TF	Ave	1.964	1.870		9.52	10.0	-4.8	30.0
1,1-Dichloroethene	Ave	0.8737	0.8165		9.34	10.0	-6.5	30.0
Acetone	Ave	1.094	1.104		10.1	10.0	0.9	30.0
Carbon disulfide	Ave	2.364	2.370		10.0	10.0	0.2	30.0
Isopropyl alcohol	Ave	0.6417	0.6870		10.7	10.0	7.1	30.0
3-Chloropropene	Ave	0.7147	0.8611		12.0	10.0	20.5	30.0
Acetonitrile	Ave	0.4046	0.4471		11.0	10.0	10.5	30.0
Methylene Chloride	Ave	0.8554	0.9203		10.8	10.0	7.6	30.0
tert-Butyl alcohol	Ave	1.014	1.022		10.1	10.0	0.8	30.0
Methyl tert-butyl ether	Ave	1.897	1.829		9.64	10.0	-3.6	30.0
trans-1,2-Dichloroethene	Ave	1.116	1.178		10.6	10.0	5.6	30.0
Acrylonitrile	Ave	0.4009	0.4215		10.5	10.0	5.1	30.0
n-Hexane	Ave	0.8683	0.9315		10.7	10.0	7.3	30.0
1,1-Dichloroethane	Ave	1.460	1.539		10.5	10.0	5.4	30.0
Vinyl acetate	Ave	1.549	1.661		10.7	10.0	7.2	30.0
cis-1,2-Dichloroethene	Ave	1.023	1.018		9.94	10.0	-0.5	30.0
Methyl Ethyl Ketone	Ave	0.3610	0.3061		8.48	10.0	-15.2	30.0
Ethyl acetate	Ave	0.0461	0.0414		8.98	10.0	-10.2	30.0
Tetrahydrofuran	Ave	0.1378	0.1336		9.69	10.0	-3.1	30.0
Chloroform	Ave	2.166	2.203		10.2	10.0	1.7	30.0
Cyclohexane	Ave	0.2319	0.2148		9.26	10.0	-7.4	30.0
1,1,1-Trichloroethane	Ave	0.5335	0.4772		8.94	10.0	-10.5	30.0
Carbon tetrachloride	Ave	0.6188	0.5440		8.79	10.0	-12.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-78929/2 Calibration Date: 10/20/2014 11:54
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10085_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7574	0.7964		10.5	10.0	5.2	30.0
Benzene	Ave	0.5977	0.5791		9.69	10.0	-3.1	30.0
1,2-Dichloroethane	Ave	0.3147	0.3155		10.0	10.0	0.3	30.0
n-Heptane	Ave	0.2833	0.3023		10.7	10.0	6.7	30.0
n-Butanol	Ave	0.0582	0.0545		9.37	10.0	-6.3	30.0
Trichloroethene	Ave	0.3408	0.3299		9.68	10.0	-3.2	30.0
1,2-Dichloropropane	Ave	0.2272	0.2361		10.4	10.0	3.9	30.0
Methyl methacrylate	Ave	0.1874	0.1712		9.14	10.0	-8.6	30.0
1,4-Dioxane	Ave	0.0833	0.0763		9.16	10.0	-8.3	30.0
Dibromomethane	Ave	0.3604	0.3417		9.48	10.0	-5.2	30.0
Bromodichloromethane	Ave	0.6043	0.6098		10.1	10.0	0.9	30.0
cis-1,3-Dichloropropene	Ave	0.4017	0.4107		10.2	10.0	2.2	30.0
methyl isobutyl ketone	Ave	0.4338	0.4295		9.90	10.0	-1.0	30.0
Toluene	Ave	0.4804	0.4738		9.86	10.0	-1.4	30.0
n-Octane	Ave	0.4584	0.4854		10.6	10.0	5.9	30.0
trans-1,3-Dichloropropene	Ave	0.4416	0.4335		9.81	10.0	-1.8	30.0
1,1,2-Trichloroethane	Ave	0.2558	0.2472		9.66	10.0	-3.3	30.0
Tetrachloroethene	Ave	0.5053	0.4828		9.55	10.0	-4.5	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4016	0.3826		9.52	10.0	-4.7	30.0
Dibromochloromethane	Ave	0.6422	0.6274		9.77	10.0	-2.3	30.0
1,2-Dibromoethane	Ave	0.5165	0.4996		9.67	10.0	-3.3	30.0
Chlorobenzene	Ave	0.7124	0.6732		9.45	10.0	-5.5	30.0
Ethylbenzene	Ave	1.079	0.996		9.23	10.0	-7.7	30.0
n-Nonane	Ave	0.4195	0.4122		9.83	10.0	-1.7	30.0
m,p-Xylene	Ave	0.4347	0.4015		18.5	20.0	-7.6	30.0
Xylene, o-	Ave	0.4347	0.4115		9.46	10.0	-5.3	30.0
Styrene	Ave	0.6335	0.6089		9.61	10.0	-3.9	30.0
Bromoform	Ave	0.6612	0.6322		9.56	10.0	-4.4	30.0
Cumene	Ave	1.225	1.134		9.26	10.0	-7.4	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6690	0.6116		9.14	10.0	-8.6	30.0
n-Propylbenzene	Ave	1.465	1.328		9.06	10.0	-9.3	30.0
1,2,3-Trichloropropane	Ave	0.5112	0.4575		8.95	10.0	-10.5	30.0
n-Decane	Ave	0.5070	0.4791		9.45	10.0	-5.5	30.0
2-Chlorotoluene	Ave	1.038	0.9428		9.08	10.0	-9.2	30.0
4-Ethyltoluene	Ave	1.218	1.079		8.86	10.0	-11.4	30.0
1,3,5-Trimethylbenzene	Ave	1.054	0.9444		8.96	10.0	-10.4	30.0
Alpha Methyl Styrene	Ave	0.4873	0.4839		9.93	10.0	-0.7	30.0
tert-Butylbenzene	Ave	0.9917	0.8900		8.97	10.0	-10.3	30.0
1,2,4-Trimethylbenzene	Ave	1.061	0.9360		8.82	10.0	-11.8	30.0
sec-Butylbenzene	Ave	1.480	1.340		9.05	10.0	-9.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24861-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-78929/2 Calibration Date: 10/20/2014 11:54
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10085_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.256	1.124		8.95	10.0	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.8643	0.7239		8.37	10.0	-16.2	30.0
1,4-Dichlorobenzene	Ave	0.8640	0.7321		8.47	10.0	-15.3	30.0
Benzyl chloride	Ave	0.7803	0.6771		8.68	10.0	-13.2	30.0
n-Butylbenzene	Ave	1.158	1.031		8.90	10.0	-11.0	30.0
n-Undecane	Ave	0.5486	0.4967		9.05	10.0	-9.5	30.0
1,2-Dichlorobenzene	Ave	0.8240	0.7095		8.61	10.0	-13.9	30.0
n-Dodecane	Ave	0.4712	0.3952		8.39	10.0	-16.1	30.0
1,2,4-Trichlorobenzene	Ave	0.6926	0.5611		8.10	10.0	-19.0	30.0
Hexachlorobutadiene	Ave	0.6069	0.4809		7.92	10.0	-20.8	30.0
Naphthalene	Ave	1.322	1.095		8.28	10.0	-17.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6266	0.5172		8.25	10.0	-17.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5630	0.5052		8.97	10.0	-10.3	30.0
Dichlorodifluoromethane	Ave	3.173	3.088		9.73	10.0	-2.7	30.0
Freon 22	Ave	1.472	1.435		9.75	10.0	-2.5	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.566	2.836		11.1	10.0	10.5	30.0
Chloromethane	Ave	0.7285	0.6874		9.43	10.0	-5.6	30.0
n-Butane	Ave	0.9868	0.9426		9.55	10.0	-4.5	30.0
Vinyl chloride	Ave	0.8749	0.8211		9.38	10.0	-6.1	30.0
1,3-Butadiene	Ave	0.5316	0.5115		9.62	10.0	-3.8	30.0
Bromomethane	Ave	1.084	1.072		9.89	10.0	-1.1	30.0
Chloroethane	Ave	0.3327	0.3159		9.49	10.0	-5.0	30.0
Isopentane	Ave	0.6571	0.6558		9.98	10.0	-0.2	30.0
Bromoethene (Vinyl Bromide)	Ave	1.117	1.112		9.96	10.0	-0.4	30.0
Trichlorofluoromethane	Ave	3.058	3.007		9.83	10.0	-1.7	30.0
n-Pentane	Ave	0.9665	1.037		10.7	10.0	7.3	30.0
Ethanol	Ave	0.2276	0.2779		18.3	15.0	22.1	30.0
Ethyl ether	Ave	0.3924	0.4048		10.3	10.0	3.2	30.0
Acrolein	Ave	0.1691	0.1810		10.7	10.0	7.0	30.0
Freon TF	Ave	1.964	1.972		10.0	10.0	0.4	30.0
1,1-Dichloroethene	Ave	0.8737	0.8401		9.61	10.0	-3.8	30.0
Acetone	Ave	1.094	1.022		9.34	10.0	-6.6	30.0
Carbon disulfide	Ave	2.364	2.648		11.2	10.0	12.0	30.0
Isopropyl alcohol	Ave	0.6417	0.6513		10.1	10.0	1.5	30.0
3-Chloropropene	Ave	0.7147	0.6769		9.47	10.0	-5.3	30.0
Acetonitrile	Ave	0.4046	0.4002		9.89	10.0	-1.1	30.0
Methylene Chloride	Ave	0.8554	0.8186		9.57	10.0	-4.3	30.0
tert-Butyl alcohol	Ave	1.014	1.045		10.3	10.0	3.0	30.0
Methyl tert-butyl ether	Ave	1.897	1.869		9.85	10.0	-1.5	30.0
trans-1,2-Dichloroethene	Ave	1.116	1.183		10.6	10.0	6.0	30.0
Acrylonitrile	Ave	0.4009	0.3987		9.94	10.0	-0.6	30.0
n-Hexane	Ave	0.8683	0.8969		10.3	10.0	3.3	30.0
1,1-Dichloroethane	Ave	1.460	1.413		9.67	10.0	-3.2	30.0
Vinyl acetate	Ave	1.549	1.416		9.14	10.0	-8.6	30.0
cis-1,2-Dichloroethene	Ave	1.023	0.9752		9.53	10.0	-4.7	30.0
Methyl Ethyl Ketone	Ave	0.3610	0.3216		8.91	10.0	-10.9	30.0
Ethyl acetate	Ave	0.0461	0.0491		10.7	10.0	6.7	30.0
Tetrahydrofuran	Ave	0.1378	0.1384		10.0	10.0	0.4	30.0
Chloroform	Ave	2.166	2.163		9.98	10.0	-0.2	30.0
Cyclohexane	Ave	0.2319	0.2457		10.6	10.0	5.9	30.0
1,1,1-Trichloroethane	Ave	0.5335	0.5503		10.3	10.0	3.2	30.0
Carbon tetrachloride	Ave	0.6188	0.6594		10.7	10.0	6.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7574	0.7806		10.3	10.0	3.1	30.0
Benzene	Ave	0.5977	0.5958		9.97	10.0	-0.3	30.0
1,2-Dichloroethane	Ave	0.3147	0.3258		10.4	10.0	3.5	30.0
n-Heptane	Ave	0.2833	0.2866		10.1	10.0	1.1	30.0
n-Butanol	Ave	0.0582	0.0727		12.5	10.0	24.9	30.0
Trichloroethene	Ave	0.3408	0.3635		10.7	10.0	6.6	30.0
1,2-Dichloropropane	Ave	0.2272	0.2322		10.2	10.0	2.2	30.0
Methyl methacrylate	Ave	0.1874	0.1986		10.6	10.0	6.0	30.0
1,4-Dioxane	Ave	0.0833	0.1020		12.2	10.0	22.5	30.0
Dibromomethane	Ave	0.3604	0.3710		10.3	10.0	2.9	30.0
Bromodichloromethane	Ave	0.6043	0.6322		10.5	10.0	4.6	30.0
cis-1,3-Dichloropropene	Ave	0.4017	0.4242		10.6	10.0	5.6	30.0
methyl isobutyl ketone	Ave	0.4338	0.4459		10.3	10.0	2.8	30.0
Toluene	Ave	0.4804	0.4881		10.2	10.0	1.6	30.0
n-Octane	Ave	0.4584	0.4714		10.3	10.0	2.8	30.0
trans-1,3-Dichloropropene	Ave	0.4416	0.4560		10.3	10.0	3.3	30.0
1,1,2-Trichloroethane	Ave	0.2558	0.2650		10.4	10.0	3.6	30.0
Tetrachloroethene	Ave	0.5053	0.5224		10.3	10.0	3.4	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4016	0.4000		9.96	10.0	-0.4	30.0
Dibromochloromethane	Ave	0.6422	0.6594		10.3	10.0	2.7	30.0
1,2-Dibromoethane	Ave	0.5165	0.5364		10.4	10.0	3.8	30.0
Chlorobenzene	Ave	0.7124	0.7158		10.0	10.0	0.5	30.0
Ethylbenzene	Ave	1.079	1.069		9.90	10.0	-1.0	30.0
n-Nonane	Ave	0.4195	0.4203		10.0	10.0	0.2	30.0
m,p-Xylene	Ave	0.4347	0.4234		19.5	20.0	-2.6	30.0
Xylene, o-	Ave	0.4347	0.4311		9.91	10.0	-0.8	30.0
Styrene	Ave	0.6335	0.6471		10.2	10.0	2.1	30.0
Bromoform	Ave	0.6612	0.6815		10.3	10.0	3.1	30.0
Cumene	Ave	1.225	1.208		9.85	10.0	-1.4	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6690	0.6766		10.1	10.0	1.1	30.0
n-Propylbenzene	Ave	1.465	1.436		9.80	10.0	-2.0	30.0
1,2,3-Trichloropropane	Ave	0.5112	0.4868		9.52	10.0	-4.8	30.0
n-Decane	Ave	0.5070	0.4959		9.78	10.0	-2.2	30.0
4-Ethyltoluene	Ave	1.218	1.198		9.84	10.0	-1.6	30.0
2-Chlorotoluene	Ave	1.038	1.006		9.69	10.0	-3.1	30.0
1,3,5-Trimethylbenzene	Ave	1.054	1.036		9.83	10.0	-1.7	30.0
Alpha Methyl Styrene	Ave	0.4873	0.5506		11.3	10.0	13.0	30.0
tert-Butylbenzene	Ave	0.9917	0.9741		9.82	10.0	-1.8	30.0
1,2,4-Trimethylbenzene	Ave	1.061	1.039		9.79	10.0	-2.1	30.0
sec-Butylbenzene	Ave	1.480	1.457		9.84	10.0	-1.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: ICV 200-77938/22 Calibration Date: 09/30/2014 10:37
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 9732_022.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.256	1.244		9.91	10.0	-0.9	30.0
1,3-Dichlorobenzene	Ave	0.8643	0.7958		9.21	10.0	-7.9	30.0
1,4-Dichlorobenzene	Ave	0.8640	0.8075		9.34	10.0	-6.5	30.0
Benzyl chloride	Ave	0.7803	0.7727		9.90	10.0	-1.0	30.0
n-Butylbenzene	Ave	1.158	1.146		9.89	10.0	-1.0	30.0
n-Undecane	Ave	0.5486	0.5656		10.3	10.0	3.1	30.0
1,2-Dichlorobenzene	Ave	0.8240	0.7831		9.50	10.0	-5.0	30.0
n-Dodecane	Ave	0.4712	0.5199		11.0	10.0	10.3	30.0
1,2,4-Trichlorobenzene	Ave	0.6926	0.6465		9.33	10.0	-6.7	30.0
Hexachlorobutadiene	Ave	0.6069	0.6019		9.92	10.0	-0.8	30.0
Naphthalene	Ave	1.322	1.105		8.36	10.0	-16.4	30.0
1,2,3-Trichlorobenzene	Ave	0.6266	0.5804		9.26	10.0	-7.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79449/2 Calibration Date: 10/28/2014 10:29
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10232_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5630	0.6204		11.0	10.0	10.2	30.0
Dichlorodifluoromethane	Ave	3.173	2.764		8.71	10.0	-12.9	30.0
Freon 22	Ave	1.472	1.509		10.3	10.0	2.6	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.566	2.353		9.17	10.0	-8.3	30.0
Chloromethane	Ave	0.7285	0.7988		11.0	10.0	9.7	30.0
n-Butane	Ave	0.9868	1.119		11.3	10.0	13.4	30.0
Vinyl chloride	Ave	0.8749	0.8701		9.94	10.0	-0.5	30.0
1,3-Butadiene	Ave	0.5316	0.5931		11.2	10.0	11.6	30.0
Bromomethane	Ave	1.084	0.9924		9.15	10.0	-8.5	30.0
Chloroethane	Ave	0.3327	0.3468		10.4	10.0	4.2	30.0
Isopentane	Ave	0.6571	0.7229		11.0	10.0	10.0	30.0
Bromoethene (Vinyl Bromide)	Ave	1.117	1.003		8.98	10.0	-10.2	30.0
Trichlorofluoromethane	Ave	3.058	2.714		8.87	10.0	-11.3	30.0
n-Pentane	Ave	0.9665	1.121		11.6	10.0	16.0	30.0
Ethanol	Ave	0.2276	0.3157		20.8	15.0	38.7*	30.0
Ethyl ether	Ave	0.3924	0.4034		10.3	10.0	2.8	30.0
Acrolein	Ave	0.1691	0.1676		9.91	10.0	-0.9	30.0
Freon TF	Ave	1.964	1.775		9.04	10.0	-9.6	30.0
1,1-Dichloroethene	Ave	0.8737	0.7889		9.03	10.0	-9.7	30.0
Acetone	Ave	1.094	1.161		10.6	10.0	6.1	30.0
Carbon disulfide	Ave	2.364	2.314		9.79	10.0	-2.1	30.0
Isopropyl alcohol	Ave	0.6417	0.7198		11.2	10.0	12.2	30.0
3-Chloropropene	Ave	0.7147	0.8683		12.1	10.0	21.5	30.0
Acetonitrile	Ave	0.4046	0.4609		11.4	10.0	13.9	30.0
Methylene Chloride	Ave	0.8554	0.9306		10.9	10.0	8.8	30.0
tert-Butyl alcohol	Ave	1.014	1.038		10.2	10.0	2.4	30.0
Methyl tert-butyl ether	Ave	1.897	1.834		9.67	10.0	-3.3	30.0
trans-1,2-Dichloroethene	Ave	1.116	1.183		10.6	10.0	6.0	30.0
Acrylonitrile	Ave	0.4009	0.4261		10.6	10.0	6.3	30.0
n-Hexane	Ave	0.8683	0.9261		10.7	10.0	6.7	30.0
1,1-Dichloroethane	Ave	1.460	1.509		10.3	10.0	3.3	30.0
Vinyl acetate	Ave	1.549	1.739		11.2	10.0	12.2	30.0
cis-1,2-Dichloroethene	Ave	1.023	0.9886		9.66	10.0	-3.4	30.0
Methyl Ethyl Ketone	Ave	0.3610	0.3225		8.93	10.0	-10.7	30.0
Ethyl acetate	Ave	0.0461	0.0412		8.94	10.0	-10.6	30.0
Tetrahydrofuran	Ave	0.1378	0.1328		9.63	10.0	-3.7	30.0
Chloroform	Ave	2.166	2.218		10.2	10.0	2.4	30.0
Cyclohexane	Ave	0.2319	0.2046		8.82	10.0	-11.8	30.0
1,1,1-Trichloroethane	Ave	0.5335	0.4387		8.22	10.0	-17.8	30.0
Carbon tetrachloride	Ave	0.6188	0.5037		8.14	10.0	-18.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79449/2 Calibration Date: 10/28/2014 10:29
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10232_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7574	0.7544		9.96	10.0	-0.4	30.0
Benzene	Ave	0.5977	0.5343		8.94	10.0	-10.6	30.0
1,2-Dichloroethane	Ave	0.3147	0.2986		9.49	10.0	-5.1	30.0
n-Heptane	Ave	0.2833	0.2898		10.2	10.0	2.3	30.0
n-Butanol	Ave	0.0582	0.0570		9.79	10.0	-2.1	30.0
Trichloroethene	Ave	0.3408	0.2998		8.79	10.0	-12.0	30.0
1,2-Dichloropropane	Ave	0.2272	0.2288		10.1	10.0	0.7	30.0
Methyl methacrylate	Ave	0.1874	0.1685		8.99	10.0	-10.1	30.0
1,4-Dioxane	Ave	0.0833	0.0763		9.16	10.0	-8.4	30.0
Dibromomethane	Ave	0.3604	0.2958		8.21	10.0	-17.9	30.0
Bromodichloromethane	Ave	0.6043	0.5824		9.64	10.0	-3.6	30.0
cis-1,3-Dichloropropene	Ave	0.4017	0.3979		9.90	10.0	-0.9	30.0
methyl isobutyl ketone	Ave	0.4338	0.4518		10.4	10.0	4.1	30.0
Toluene	Ave	0.4804	0.4348		9.05	10.0	-9.5	30.0
n-Octane	Ave	0.4584	0.5118		11.2	10.0	11.7	30.0
trans-1,3-Dichloropropene	Ave	0.4416	0.4206		9.52	10.0	-4.7	30.0
1,1,2-Trichloroethane	Ave	0.2558	0.2324		9.08	10.0	-9.1	30.0
Tetrachloroethene	Ave	0.5053	0.4087		8.09	10.0	-19.1	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4016	0.3865		9.62	10.0	-3.7	30.0
Dibromochloromethane	Ave	0.6422	0.5677		8.84	10.0	-11.6	30.0
1,2-Dibromoethane	Ave	0.5165	0.4500		8.71	10.0	-12.9	30.0
Chlorobenzene	Ave	0.7124	0.6078		8.53	10.0	-14.7	30.0
Ethylbenzene	Ave	1.079	0.9301		8.62	10.0	-13.8	30.0
n-Nonane	Ave	0.4195	0.4159		9.91	10.0	-0.8	30.0
m,p-Xylene	Ave	0.4347	0.3750		17.2	20.0	-13.7	30.0
Xylene, o-	Ave	0.4347	0.3829		8.81	10.0	-11.9	30.0
Styrene	Ave	0.6335	0.5566		8.78	10.0	-12.1	30.0
Bromoform	Ave	0.6612	0.5610		8.48	10.0	-15.2	30.0
Cumene	Ave	1.225	1.050		8.57	10.0	-14.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6690	0.5905		8.82	10.0	-11.7	30.0
n-Propylbenzene	Ave	1.465	1.262		8.62	10.0	-13.8	30.0
1,2,3-Trichloropropane	Ave	0.5112	0.4527		8.85	10.0	-11.5	30.0
2-Chlorotoluene	Ave	1.038	0.8900		8.57	10.0	-14.3	30.0
4-Ethyltoluene	Ave	1.218	1.026		8.42	10.0	-15.8	30.0
n-Decane	Ave	0.5070	0.4864		9.59	10.0	-4.1	30.0
1,3,5-Trimethylbenzene	Ave	1.054	0.8809		8.36	10.0	-16.4	30.0
Alpha Methyl Styrene	Ave	0.4873	0.4461		9.15	10.0	-8.4	30.0
tert-Butylbenzene	Ave	0.9917	0.8301		8.37	10.0	-16.3	30.0
1,2,4-Trimethylbenzene	Ave	1.061	0.8776		8.27	10.0	-17.3	30.0
sec-Butylbenzene	Ave	1.480	1.262		8.52	10.0	-14.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-24999-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79449/2 Calibration Date: 10/28/2014 10:29
 Instrument ID: CHG.i Calib Start Date: 09/29/2014 17:12
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 09/30/2014 09:46
 Lab File ID: 10232_02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.256	1.038		8.27	10.0	-17.3	30.0
1,3-Dichlorobenzene	Ave	0.8643	0.6426		7.43	10.0	-25.7	30.0
1,4-Dichlorobenzene	Ave	0.8640	0.6419		7.43	10.0	-25.7	30.0
Benzyl chloride	Ave	0.7803	0.6251		8.01	10.0	-19.9	30.0
n-Butylbenzene	Ave	1.158	0.9639		8.32	10.0	-16.8	30.0
n-Undecane	Ave	0.5486	0.4936		9.00	10.0	-10.0	30.0
1,2-Dichlorobenzene	Ave	0.8240	0.6239		7.57	10.0	-24.3	30.0
n-Dodecane	Ave	0.4712	0.3747		7.95	10.0	-20.5	30.0
1,2,4-Trichlorobenzene	Ave	0.6926	0.4845		6.99	10.0	-30.0	30.0
Hexachlorobutadiene	Ave	0.6069	0.4315		7.11	10.0	-28.9	30.0
Naphthalene	Ave	1.322	0.9662		7.31	10.0	-26.9	30.0
1,2,3-Trichlorobenzene	Ave	0.6266	0.4456		7.11	10.0	-28.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5672	0.4819		8.50	10.0	-15.0	30.0
Dichlorodifluoromethane	Ave	2.506	2.288		9.13	10.0	-8.7	30.0
Freon 22	Ave	1.247	1.131		9.07	10.0	-9.3	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.547	2.636		10.3	10.0	3.5	30.0
Chloromethane	Ave	0.7256	0.6283		8.66	10.0	-13.4	30.0
n-Butane	Ave	1.178	1.042		8.85	10.0	-11.5	30.0
Vinyl chloride	Ave	0.9435	0.8516		9.02	10.0	-9.7	30.0
1,3-Butadiene	Ave	0.6732	0.5878		8.73	10.0	-12.7	30.0
Bromomethane	Ave	1.010	0.8976		8.89	10.0	-11.1	30.0
Chloroethane	Ave	0.4554	0.3970		8.72	10.0	-12.8	30.0
Isopentane	Ave	0.7781	0.7207		9.26	10.0	-7.4	30.0
Bromoethene (Vinyl Bromide)	Ave	1.004	0.9245		9.21	10.0	-7.9	30.0
Trichlorofluoromethane	Ave	2.380	2.180		9.16	10.0	-8.4	30.0
n-Pentane	Ave	1.262	1.243		9.85	10.0	-1.5	30.0
Ethanol	Ave	0.2991	0.3563		17.9	15.0	19.1	30.0
Ethyl ether	Ave	0.5637	0.5817		10.3	10.0	3.2	30.0
Acrolein	Ave	0.2593	0.2747		10.6	10.0	5.9	30.0
Freon TF	Ave	1.914	1.809		9.45	10.0	-5.5	30.0
1,1-Dichloroethene	Ave	0.9326	0.8488		9.10	10.0	-9.0	30.0
Acetone	Ave	1.188	1.007		8.48	10.0	-15.2	30.0
Carbon disulfide	Ave	2.484	2.669		10.7	10.0	7.4	30.0
Isopropyl alcohol	Ave	1.006	0.8776		8.72	10.0	-12.8	30.0
3-Chloropropene	Ave	0.9000	0.7623		8.47	10.0	-15.3	30.0
Acetonitrile	Ave	0.5238	0.5187		9.90	10.0	-1.0	30.0
Methylene Chloride	Ave	0.9006	0.7795		8.65	10.0	-13.5	30.0
tert-Butyl alcohol	Ave	1.604	1.443		8.99	10.0	-10.0	30.0
Methyl tert-butyl ether	Ave	2.530	2.354		9.30	10.0	-7.0	30.0
trans-1,2-Dichloroethene	Ave	1.214	1.198		9.86	10.0	-1.4	30.0
Acrylonitrile	Ave	0.5845	0.5614		9.60	10.0	-3.9	30.0
n-Hexane	Ave	1.282	1.258		9.81	10.0	-1.9	30.0
1,1-Dichloroethane	Ave	1.548	1.449		9.36	10.0	-6.4	30.0
Vinyl acetate	Ave	1.935	1.740		8.99	10.0	-10.1	30.0
cis-1,2-Dichloroethene	Ave	1.023	0.9392		9.18	10.0	-8.2	30.0
Methyl Ethyl Ketone	Ave	0.5176	0.4237		8.18	10.0	-18.1	30.0
Ethyl acetate	Ave	0.0764	0.0761		9.95	10.0	-0.5	30.0
Tetrahydrofuran	Ave	0.1652	0.1552		9.39	10.0	-6.1	30.0
Chloroform	Ave	1.792	1.690		9.43	10.0	-5.7	30.0
Cyclohexane	Ave	0.2746	0.2597		9.46	10.0	-5.4	30.0
1,1,1-Trichloroethane	Ave	0.4038	0.3789		9.38	10.0	-6.2	30.0
Carbon tetrachloride	Ave	0.4243	0.4081		9.62	10.0	-3.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8071	0.7437		9.21	10.0	-7.9	30.0
Benzene	Ave	0.5811	0.5333		9.18	10.0	-8.2	30.0
1,2-Dichloroethane	Ave	0.2090	0.1983		9.49	10.0	-5.1	30.0
n-Heptane	Ave	0.2494	0.2251		9.02	10.0	-9.7	30.0
n-Butanol	Ave	0.0845	0.0827		9.78	10.0	-2.2	30.0
Trichloroethene	Ave	0.2561	0.2377		9.28	10.0	-7.2	30.0
1,2-Dichloropropane	Ave	0.1853	0.1695		9.14	10.0	-8.5	30.0
Methyl methacrylate	Ave	0.1896	0.1790		9.44	10.0	-5.6	30.0
1,4-Dioxane	Ave	0.0943	0.0867		9.19	10.0	-8.1	30.0
Dibromomethane	Ave	0.2861	0.2632		9.20	10.0	-8.0	30.0
Bromodichloromethane	Ave	0.3987	0.3678		9.22	10.0	-7.7	30.0
cis-1,3-Dichloropropene	Ave	0.3002	0.2793		9.30	10.0	-7.0	30.0
methyl isobutyl ketone	Ave	0.3180	0.2863		9.00	10.0	-10.0	30.0
Toluene	Ave	0.4708	0.4342		9.22	10.0	-7.8	30.0
n-Octane	Ave	0.3454	0.3143		9.10	10.0	-9.0	30.0
trans-1,3-Dichloropropene	Ave	0.3161	0.2883		9.12	10.0	-8.8	30.0
1,1,2-Trichloroethane	Ave	0.2199	0.2045		9.30	10.0	-7.0	30.0
Tetrachloroethene	Ave	0.4426	0.4265		9.64	10.0	-3.6	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3385	0.3005		8.87	10.0	-11.2	30.0
Dibromochloromethane	Ave	0.5379	0.4854		9.02	10.0	-9.8	30.0
1,2-Dibromoethane	Ave	0.4477	0.4154		9.28	10.0	-7.2	30.0
Chlorobenzene	Ave	0.7037	0.6415		9.11	10.0	-8.8	30.0
Ethylbenzene	Ave	1.066	0.9601		9.01	10.0	-9.9	30.0
n-Nonane	Ave	0.4028	0.3667		9.10	10.0	-9.0	30.0
m,p-Xylene	Ave	0.4688	0.4161		17.8	20.0	-11.2	30.0
Xylene, o-	Ave	0.4422	0.3947		8.92	10.0	-10.7	30.0
Styrene	Ave	0.6928	0.6179		8.92	10.0	-10.8	30.0
Bromoform	Ave	0.5932	0.5402		9.10	10.0	-8.9	30.0
Cumene	Ave	1.279	1.150		8.99	10.0	-10.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6022	0.5521		9.17	10.0	-8.3	30.0
n-Propylbenzene	Ave	1.522	1.343		8.82	10.0	-11.8	30.0
1,2,3-Trichloropropane	Ave	0.4572	0.4027		8.81	10.0	-11.9	30.0
n-Decane	Ave	0.5768	0.5044		8.74	10.0	-12.5	30.0
4-Ethyltoluene	Ave	1.437	1.277		8.88	10.0	-11.1	30.0
2-Chlorotoluene	Ave	1.113	0.9740		8.75	10.0	-12.5	30.0
1,3,5-Trimethylbenzene	Ave	1.093	0.9832		8.99	10.0	-10.1	30.0
Alpha Methyl Styrene	Ave	0.5504	0.5326		9.67	10.0	-3.2	30.0
tert-Butylbenzene	Ave	1.093	0.9781		8.94	10.0	-10.5	30.0
1,2,4-Trimethylbenzene	Ave	1.132	1.003		8.86	10.0	-11.4	30.0
sec-Butylbenzene	Ave	1.643	1.458		8.87	10.0	-11.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.461	1.307		8.95	10.0	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.9301	0.7756		8.34	10.0	-16.6	30.0
1,4-Dichlorobenzene	Ave	0.9041	0.7514		8.31	10.0	-16.9	30.0
Benzyl chloride	Ave	0.8314	0.6837		8.22	10.0	-17.8	30.0
n-Butylbenzene	Ave	1.288	1.118		8.68	10.0	-13.2	30.0
n-Undecane	Ave	0.6592	0.5779		8.77	10.0	-12.3	30.0
1,2-Dichlorobenzene	Ave	0.8379	0.7242		8.64	10.0	-13.6	30.0
n-Dodecane	Ave	0.5973	0.5412		9.06	10.0	-9.4	30.0
1,2,4-Trichlorobenzene	Ave	0.7148	0.5789		8.10	10.0	-19.0	30.0
Hexachlorobutadiene	Ave	0.6164	0.5482		8.89	10.0	-11.1	30.0
Naphthalene	Ave	1.411	1.075		7.62	10.0	-23.8	30.0
1,2,3-Trichlorobenzene	Ave	0.6705	0.5292		7.89	10.0	-21.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5672	0.6646		11.7	10.0	17.2	30.0
Dichlorodifluoromethane	Ave	2.506	2.507		10.0	10.0	0.0	30.0
Freon 22	Ave	1.247	1.432		11.5	10.0	14.9	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.547	2.358		9.26	10.0	-7.4	30.0
Chloromethane	Ave	0.7256	0.7830		10.8	10.0	7.9	30.0
n-Butane	Ave	1.178	1.259		10.7	10.0	6.9	30.0
Vinyl chloride	Ave	0.9435	0.8822		9.35	10.0	-6.5	30.0
1,3-Butadiene	Ave	0.6732	0.6095		9.05	10.0	-9.5	30.0
Bromomethane	Ave	1.010	0.7510		7.43	10.0	-25.6	30.0
Chloroethane	Ave	0.4554	0.3831		8.41	10.0	-15.9	30.0
Isopentane	Ave	0.7781	0.7432		9.55	10.0	-4.5	30.0
Bromoethene (Vinyl Bromide)	Ave	1.004	0.8878		8.84	10.0	-11.6	30.0
Trichlorofluoromethane	Ave	2.380	2.490		10.5	10.0	4.6	30.0
n-Pentane	Ave	1.262	1.412		11.2	10.0	11.9	30.0
Ethanol	Ave	0.2991	0.3788		19.0	15.0	26.7	30.0
Ethyl ether	Ave	0.5637	0.5755		10.2	10.0	2.1	30.0
Acrolein	Ave	0.2593	0.2808		10.8	10.0	8.3	30.0
Freon TF	Ave	1.914	1.775		9.27	10.0	-7.2	30.0
1,1-Dichloroethene	Ave	0.9326	0.8211		8.80	10.0	-12.0	30.0
Acetone	Ave	1.188	1.347		11.3	10.0	13.4	30.0
Carbon disulfide	Ave	2.484	2.543		10.2	10.0	2.4	30.0
Isopropyl alcohol	Ave	1.006	1.070		10.6	10.0	6.4	30.0
3-Chloropropene	Ave	0.9000	1.038		11.5	10.0	15.3	30.0
Acetonitrile	Ave	0.5238	0.5757		11.0	10.0	9.9	30.0
Methylene Chloride	Ave	0.9006	0.9529		10.6	10.0	5.8	30.0
tert-Butyl alcohol	Ave	1.604	1.584		9.87	10.0	-1.2	30.0
Methyl tert-butyl ether	Ave	2.530	2.545		10.1	10.0	0.6	30.0
trans-1,2-Dichloroethene	Ave	1.214	1.290		10.6	10.0	6.2	30.0
Acrylonitrile	Ave	0.5845	0.6274		10.7	10.0	7.4	30.0
n-Hexane	Ave	1.282	1.360		10.6	10.0	6.1	30.0
1,1-Dichloroethane	Ave	1.548	1.720		11.1	10.0	11.1	30.0
Vinyl acetate	Ave	1.935	2.380		12.3	10.0	23.0	30.0
cis-1,2-Dichloroethene	Ave	1.023	1.039		10.2	10.0	1.5	30.0
Methyl Ethyl Ketone	Ave	0.5176	0.5034		9.72	10.0	-2.7	30.0
Ethyl acetate	Ave	0.0764	0.0821		10.7	10.0	7.4	30.0
Tetrahydrofuran	Ave	0.1652	0.2087		12.6	10.0	26.3	30.0
Chloroform	Ave	1.792	2.052		11.4	10.0	14.5	30.0
Cyclohexane	Ave	0.2746	0.2631		9.58	10.0	-4.2	30.0
1,1,1-Trichloroethane	Ave	0.4038	0.3896		9.64	10.0	-3.5	30.0
Carbon tetrachloride	Ave	0.4243	0.4185		9.86	10.0	-1.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8071	0.9881		12.2	10.0	22.4	30.0
Benzene	Ave	0.5811	0.6154		10.6	10.0	5.9	30.0
1,2-Dichloroethane	Ave	0.2090	0.2358		11.3	10.0	12.8	30.0
n-Heptane	Ave	0.2494	0.3535		14.2	10.0	41.8*	30.0
n-Butanol	Ave	0.0845	0.1033		12.2	10.0	22.2	30.0
Trichloroethene	Ave	0.2561	0.2636		10.3	10.0	2.9	30.0
1,2-Dichloropropane	Ave	0.1853	0.2357		12.7	10.0	27.2	30.0
Methyl methacrylate	Ave	0.1896	0.2168		11.4	10.0	14.4	30.0
1,4-Dioxane	Ave	0.0943	0.0985		10.4	10.0	4.5	30.0
Dibromomethane	Ave	0.2861	0.2638		9.22	10.0	-7.8	30.0
Bromodichloromethane	Ave	0.3987	0.4305		10.8	10.0	8.0	30.0
cis-1,3-Dichloropropene	Ave	0.3002	0.3398		11.3	10.0	13.2	30.0
methyl isobutyl ketone	Ave	0.3180	0.4542		14.3	10.0	42.8*	30.0
Toluene	Ave	0.4708	0.4783		10.2	10.0	1.6	30.0
n-Octane	Ave	0.3454	0.5164		14.9	10.0	49.5*	30.0
trans-1,3-Dichloropropene	Ave	0.3161	0.3529		11.2	10.0	11.7	30.0
1,1,2-Trichloroethane	Ave	0.2199	0.2442		11.1	10.0	11.0	30.0
Tetrachloroethene	Ave	0.4426	0.4209		9.51	10.0	-4.9	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3385	0.4632		13.7	10.0	36.8*	30.0
Dibromochloromethane	Ave	0.5379	0.4976		9.25	10.0	-7.5	30.0
1,2-Dibromoethane	Ave	0.4477	0.4383		9.79	10.0	-2.1	30.0
Chlorobenzene	Ave	0.7037	0.6781		9.63	10.0	-3.6	30.0
Ethylbenzene	Ave	1.066	1.096		10.3	10.0	2.8	30.0
n-Nonane	Ave	0.4028	0.5227		13.0	10.0	29.8	30.0
m,p-Xylene	Ave	0.4688	0.4440		18.9	20.0	-5.3	30.0
Xylene, o-	Ave	0.4422	0.4282		9.68	10.0	-3.2	30.0
Styrene	Ave	0.6928	0.6781		9.79	10.0	-2.1	30.0
Bromoform	Ave	0.5932	0.5607		9.45	10.0	-5.5	30.0
Cumene	Ave	1.279	1.277		9.98	10.0	-0.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6022	0.6572		10.9	10.0	9.1	30.0
n-Propylbenzene	Ave	1.522	1.586		10.4	10.0	4.2	30.0
1,2,3-Trichloropropane	Ave	0.4572	0.5140		11.2	10.0	12.4	30.0
n-Decane	Ave	0.5768	0.7328		12.7	10.0	27.1	30.0
4-Ethyltoluene	Ave	1.437	1.353		9.41	10.0	-5.8	30.0
2-Chlorotoluene	Ave	1.113	1.107		9.95	10.0	-0.5	30.0
1,3,5-Trimethylbenzene	Ave	1.093	1.093		9.99	10.0	-0.0	30.0
Alpha Methyl Styrene	Ave	0.5504	0.5326		9.68	10.0	-3.2	30.0
tert-Butylbenzene	Ave	1.093	1.073		9.81	10.0	-1.9	30.0
1,2,4-Trimethylbenzene	Ave	1.132	1.128		9.97	10.0	-0.3	30.0
sec-Butylbenzene	Ave	1.643	1.651		10.0	10.0	0.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25063-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.461	1.432		9.80	10.0	-2.0	30.0
1,3-Dichlorobenzene	Ave	0.9301	0.8358		8.98	10.0	-10.1	30.0
1,4-Dichlorobenzene	Ave	0.9041	0.8363		9.25	10.0	-7.5	30.0
Benzyl chloride	Ave	0.8314	1.003		12.1	10.0	20.6	30.0
n-Butylbenzene	Ave	1.288	1.328		10.3	10.0	3.1	30.0
n-Undecane	Ave	0.6592	0.8312		12.6	10.0	26.1	30.0
1,2-Dichlorobenzene	Ave	0.8379	0.7863		9.38	10.0	-6.2	30.0
n-Dodecane	Ave	0.5973	0.7996		13.4	10.0	33.9*	30.0
1,2,4-Trichlorobenzene	Ave	0.7148	0.7096		9.93	10.0	-0.7	30.0
Hexachlorobutadiene	Ave	0.6164	0.6442		10.4	10.0	4.5	30.0
Naphthalene	Ave	1.411	1.528		10.8	10.0	8.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6705	0.6561		9.78	10.0	-2.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5672	0.4819		8.50	10.0	-15.0	30.0
Dichlorodifluoromethane	Ave	2.506	2.288		9.13	10.0	-8.7	30.0
Freon 22	Ave	1.247	1.131		9.07	10.0	-9.3	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.547	2.636		10.3	10.0	3.5	30.0
Chloromethane	Ave	0.7256	0.6283		8.66	10.0	-13.4	30.0
n-Butane	Ave	1.178	1.042		8.85	10.0	-11.5	30.0
Vinyl chloride	Ave	0.9435	0.8516		9.02	10.0	-9.7	30.0
1,3-Butadiene	Ave	0.6732	0.5878		8.73	10.0	-12.7	30.0
Bromomethane	Ave	1.010	0.8976		8.89	10.0	-11.1	30.0
Chloroethane	Ave	0.4554	0.3970		8.72	10.0	-12.8	30.0
Isopentane	Ave	0.7781	0.7207		9.26	10.0	-7.4	30.0
Bromoethene (Vinyl Bromide)	Ave	1.004	0.9245		9.21	10.0	-7.9	30.0
Trichlorofluoromethane	Ave	2.380	2.180		9.16	10.0	-8.4	30.0
n-Pentane	Ave	1.262	1.243		9.85	10.0	-1.5	30.0
Ethanol	Ave	0.2991	0.3563		17.9	15.0	19.1	30.0
Ethyl ether	Ave	0.5637	0.5817		10.3	10.0	3.2	30.0
Acrolein	Ave	0.2593	0.2747		10.6	10.0	5.9	30.0
Freon TF	Ave	1.914	1.809		9.45	10.0	-5.5	30.0
1,1-Dichloroethene	Ave	0.9326	0.8488		9.10	10.0	-9.0	30.0
Acetone	Ave	1.188	1.007		8.48	10.0	-15.2	30.0
Carbon disulfide	Ave	2.484	2.669		10.7	10.0	7.4	30.0
Isopropyl alcohol	Ave	1.006	0.8776		8.72	10.0	-12.8	30.0
3-Chloropropene	Ave	0.9000	0.7623		8.47	10.0	-15.3	30.0
Acetonitrile	Ave	0.5238	0.5187		9.90	10.0	-1.0	30.0
Methylene Chloride	Ave	0.9006	0.7795		8.65	10.0	-13.5	30.0
tert-Butyl alcohol	Ave	1.604	1.443		8.99	10.0	-10.0	30.0
Methyl tert-butyl ether	Ave	2.530	2.354		9.30	10.0	-7.0	30.0
trans-1,2-Dichloroethene	Ave	1.214	1.198		9.86	10.0	-1.4	30.0
Acrylonitrile	Ave	0.5845	0.5614		9.60	10.0	-3.9	30.0
n-Hexane	Ave	1.282	1.258		9.81	10.0	-1.9	30.0
1,1-Dichloroethane	Ave	1.548	1.449		9.36	10.0	-6.4	30.0
Vinyl acetate	Ave	1.935	1.740		8.99	10.0	-10.1	30.0
cis-1,2-Dichloroethene	Ave	1.023	0.9392		9.18	10.0	-8.2	30.0
Methyl Ethyl Ketone	Ave	0.5176	0.4237		8.18	10.0	-18.1	30.0
Ethyl acetate	Ave	0.0764	0.0761		9.95	10.0	-0.5	30.0
Tetrahydrofuran	Ave	0.1652	0.1552		9.39	10.0	-6.1	30.0
Chloroform	Ave	1.792	1.690		9.43	10.0	-5.7	30.0
Cyclohexane	Ave	0.2746	0.2597		9.46	10.0	-5.4	30.0
1,1,1-Trichloroethane	Ave	0.4038	0.3789		9.38	10.0	-6.2	30.0
Carbon tetrachloride	Ave	0.4243	0.4081		9.62	10.0	-3.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8071	0.7437		9.21	10.0	-7.9	30.0
Benzene	Ave	0.5811	0.5333		9.18	10.0	-8.2	30.0
1,2-Dichloroethane	Ave	0.2090	0.1983		9.49	10.0	-5.1	30.0
n-Heptane	Ave	0.2494	0.2251		9.02	10.0	-9.7	30.0
n-Butanol	Ave	0.0845	0.0827		9.78	10.0	-2.2	30.0
Trichloroethene	Ave	0.2561	0.2377		9.28	10.0	-7.2	30.0
1,2-Dichloropropane	Ave	0.1853	0.1695		9.14	10.0	-8.5	30.0
Methyl methacrylate	Ave	0.1896	0.1790		9.44	10.0	-5.6	30.0
1,4-Dioxane	Ave	0.0943	0.0867		9.19	10.0	-8.1	30.0
Dibromomethane	Ave	0.2861	0.2632		9.20	10.0	-8.0	30.0
Bromodichloromethane	Ave	0.3987	0.3678		9.22	10.0	-7.7	30.0
cis-1,3-Dichloropropene	Ave	0.3002	0.2793		9.30	10.0	-7.0	30.0
methyl isobutyl ketone	Ave	0.3180	0.2863		9.00	10.0	-10.0	30.0
Toluene	Ave	0.4708	0.4342		9.22	10.0	-7.8	30.0
n-Octane	Ave	0.3454	0.3143		9.10	10.0	-9.0	30.0
trans-1,3-Dichloropropene	Ave	0.3161	0.2883		9.12	10.0	-8.8	30.0
1,1,2-Trichloroethane	Ave	0.2199	0.2045		9.30	10.0	-7.0	30.0
Tetrachloroethene	Ave	0.4426	0.4265		9.64	10.0	-3.6	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3385	0.3005		8.87	10.0	-11.2	30.0
Dibromochloromethane	Ave	0.5379	0.4854		9.02	10.0	-9.8	30.0
1,2-Dibromoethane	Ave	0.4477	0.4154		9.28	10.0	-7.2	30.0
Chlorobenzene	Ave	0.7037	0.6415		9.11	10.0	-8.8	30.0
Ethylbenzene	Ave	1.066	0.9601		9.01	10.0	-9.9	30.0
n-Nonane	Ave	0.4028	0.3667		9.10	10.0	-9.0	30.0
m,p-Xylene	Ave	0.4688	0.4161		17.8	20.0	-11.2	30.0
Xylene, o-	Ave	0.4422	0.3947		8.92	10.0	-10.7	30.0
Styrene	Ave	0.6928	0.6179		8.92	10.0	-10.8	30.0
Bromoform	Ave	0.5932	0.5402		9.10	10.0	-8.9	30.0
Cumene	Ave	1.279	1.150		8.99	10.0	-10.1	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6022	0.5521		9.17	10.0	-8.3	30.0
n-Propylbenzene	Ave	1.522	1.343		8.82	10.0	-11.8	30.0
1,2,3-Trichloropropane	Ave	0.4572	0.4027		8.81	10.0	-11.9	30.0
n-Decane	Ave	0.5768	0.5044		8.74	10.0	-12.5	30.0
4-Ethyltoluene	Ave	1.437	1.277		8.88	10.0	-11.1	30.0
2-Chlorotoluene	Ave	1.113	0.9740		8.75	10.0	-12.5	30.0
1,3,5-Trimethylbenzene	Ave	1.093	0.9832		8.99	10.0	-10.1	30.0
Alpha Methyl Styrene	Ave	0.5504	0.5326		9.67	10.0	-3.2	30.0
tert-Butylbenzene	Ave	1.093	0.9781		8.94	10.0	-10.5	30.0
1,2,4-Trimethylbenzene	Ave	1.132	1.003		8.86	10.0	-11.4	30.0
sec-Butylbenzene	Ave	1.643	1.458		8.87	10.0	-11.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: ICV 200-78137/14 Calibration Date: 10/03/2014 02:33
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 9815-014.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.461	1.307		8.95	10.0	-10.5	30.0
1,3-Dichlorobenzene	Ave	0.9301	0.7756		8.34	10.0	-16.6	30.0
1,4-Dichlorobenzene	Ave	0.9041	0.7514		8.31	10.0	-16.9	30.0
Benzyl chloride	Ave	0.8314	0.6837		8.22	10.0	-17.8	30.0
n-Butylbenzene	Ave	1.288	1.118		8.68	10.0	-13.2	30.0
n-Undecane	Ave	0.6592	0.5779		8.77	10.0	-12.3	30.0
1,2-Dichlorobenzene	Ave	0.8379	0.7242		8.64	10.0	-13.6	30.0
n-Dodecane	Ave	0.5973	0.5412		9.06	10.0	-9.4	30.0
1,2,4-Trichlorobenzene	Ave	0.7148	0.5789		8.10	10.0	-19.0	30.0
Hexachlorobutadiene	Ave	0.6164	0.5482		8.89	10.0	-11.1	30.0
Naphthalene	Ave	1.411	1.075		7.62	10.0	-23.8	30.0
1,2,3-Trichlorobenzene	Ave	0.6705	0.5292		7.89	10.0	-21.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.5672	0.6646		11.7	10.0	17.2	30.0
Dichlorodifluoromethane	Ave	2.506	2.507		10.0	10.0	0.0	30.0
Freon 22	Ave	1.247	1.432		11.5	10.0	14.9	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.547	2.358		9.26	10.0	-7.4	30.0
Chloromethane	Ave	0.7256	0.7830		10.8	10.0	7.9	30.0
n-Butane	Ave	1.178	1.259		10.7	10.0	6.9	30.0
Vinyl chloride	Ave	0.9435	0.8822		9.35	10.0	-6.5	30.0
1,3-Butadiene	Ave	0.6732	0.6095		9.05	10.0	-9.5	30.0
Bromomethane	Ave	1.010	0.7510		7.43	10.0	-25.6	30.0
Chloroethane	Ave	0.4554	0.3831		8.41	10.0	-15.9	30.0
Isopentane	Ave	0.7781	0.7432		9.55	10.0	-4.5	30.0
Bromoethene (Vinyl Bromide)	Ave	1.004	0.8878		8.84	10.0	-11.6	30.0
Trichlorofluoromethane	Ave	2.380	2.490		10.5	10.0	4.6	30.0
n-Pentane	Ave	1.262	1.412		11.2	10.0	11.9	30.0
Ethanol	Ave	0.2991	0.3788		19.0	15.0	26.7	30.0
Ethyl ether	Ave	0.5637	0.5755		10.2	10.0	2.1	30.0
Acrolein	Ave	0.2593	0.2808		10.8	10.0	8.3	30.0
Freon TF	Ave	1.914	1.775		9.27	10.0	-7.2	30.0
1,1-Dichloroethene	Ave	0.9326	0.8211		8.80	10.0	-12.0	30.0
Acetone	Ave	1.188	1.347		11.3	10.0	13.4	30.0
Carbon disulfide	Ave	2.484	2.543		10.2	10.0	2.4	30.0
Isopropyl alcohol	Ave	1.006	1.070		10.6	10.0	6.4	30.0
3-Chloropropene	Ave	0.9000	1.038		11.5	10.0	15.3	30.0
Acetonitrile	Ave	0.5238	0.5757		11.0	10.0	9.9	30.0
Methylene Chloride	Ave	0.9006	0.9529		10.6	10.0	5.8	30.0
tert-Butyl alcohol	Ave	1.604	1.584		9.87	10.0	-1.2	30.0
Methyl tert-butyl ether	Ave	2.530	2.545		10.1	10.0	0.6	30.0
trans-1,2-Dichloroethene	Ave	1.214	1.290		10.6	10.0	6.2	30.0
Acrylonitrile	Ave	0.5845	0.6274		10.7	10.0	7.4	30.0
n-Hexane	Ave	1.282	1.360		10.6	10.0	6.1	30.0
1,1-Dichloroethane	Ave	1.548	1.720		11.1	10.0	11.1	30.0
Vinyl acetate	Ave	1.935	2.380		12.3	10.0	23.0	30.0
cis-1,2-Dichloroethene	Ave	1.023	1.039		10.2	10.0	1.5	30.0
Methyl Ethyl Ketone	Ave	0.5176	0.5034		9.72	10.0	-2.7	30.0
Ethyl acetate	Ave	0.0764	0.0821		10.7	10.0	7.4	30.0
Tetrahydrofuran	Ave	0.1652	0.2087		12.6	10.0	26.3	30.0
Chloroform	Ave	1.792	2.052		11.4	10.0	14.5	30.0
Cyclohexane	Ave	0.2746	0.2631		9.58	10.0	-4.2	30.0
1,1,1-Trichloroethane	Ave	0.4038	0.3896		9.64	10.0	-3.5	30.0
Carbon tetrachloride	Ave	0.4243	0.4185		9.86	10.0	-1.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.8071	0.9881		12.2	10.0	22.4	30.0
Benzene	Ave	0.5811	0.6154		10.6	10.0	5.9	30.0
1,2-Dichloroethane	Ave	0.2090	0.2358		11.3	10.0	12.8	30.0
n-Heptane	Ave	0.2494	0.3535		14.2	10.0	41.8*	30.0
n-Butanol	Ave	0.0845	0.1033		12.2	10.0	22.2	30.0
Trichloroethene	Ave	0.2561	0.2636		10.3	10.0	2.9	30.0
1,2-Dichloropropane	Ave	0.1853	0.2357		12.7	10.0	27.2	30.0
Methyl methacrylate	Ave	0.1896	0.2168		11.4	10.0	14.4	30.0
1,4-Dioxane	Ave	0.0943	0.0985		10.4	10.0	4.5	30.0
Dibromomethane	Ave	0.2861	0.2638		9.22	10.0	-7.8	30.0
Bromodichloromethane	Ave	0.3987	0.4305		10.8	10.0	8.0	30.0
cis-1,3-Dichloropropene	Ave	0.3002	0.3398		11.3	10.0	13.2	30.0
methyl isobutyl ketone	Ave	0.3180	0.4542		14.3	10.0	42.8*	30.0
Toluene	Ave	0.4708	0.4783		10.2	10.0	1.6	30.0
n-Octane	Ave	0.3454	0.5164		14.9	10.0	49.5*	30.0
trans-1,3-Dichloropropene	Ave	0.3161	0.3529		11.2	10.0	11.7	30.0
1,1,2-Trichloroethane	Ave	0.2199	0.2442		11.1	10.0	11.0	30.0
Tetrachloroethene	Ave	0.4426	0.4209		9.51	10.0	-4.9	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3385	0.4632		13.7	10.0	36.8*	30.0
Dibromochloromethane	Ave	0.5379	0.4976		9.25	10.0	-7.5	30.0
1,2-Dibromoethane	Ave	0.4477	0.4383		9.79	10.0	-2.1	30.0
Chlorobenzene	Ave	0.7037	0.6781		9.63	10.0	-3.6	30.0
Ethylbenzene	Ave	1.066	1.096		10.3	10.0	2.8	30.0
n-Nonane	Ave	0.4028	0.5227		13.0	10.0	29.8	30.0
m,p-Xylene	Ave	0.4688	0.4440		18.9	20.0	-5.3	30.0
Xylene, o-	Ave	0.4422	0.4282		9.68	10.0	-3.2	30.0
Styrene	Ave	0.6928	0.6781		9.79	10.0	-2.1	30.0
Bromoform	Ave	0.5932	0.5607		9.45	10.0	-5.5	30.0
Cumene	Ave	1.279	1.277		9.98	10.0	-0.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6022	0.6572		10.9	10.0	9.1	30.0
n-Propylbenzene	Ave	1.522	1.586		10.4	10.0	4.2	30.0
1,2,3-Trichloropropane	Ave	0.4572	0.5140		11.2	10.0	12.4	30.0
n-Decane	Ave	0.5768	0.7328		12.7	10.0	27.1	30.0
4-Ethyltoluene	Ave	1.437	1.353		9.41	10.0	-5.8	30.0
2-Chlorotoluene	Ave	1.113	1.107		9.95	10.0	-0.5	30.0
1,3,5-Trimethylbenzene	Ave	1.093	1.093		9.99	10.0	-0.0	30.0
Alpha Methyl Styrene	Ave	0.5504	0.5326		9.68	10.0	-3.2	30.0
tert-Butylbenzene	Ave	1.093	1.073		9.81	10.0	-1.9	30.0
1,2,4-Trimethylbenzene	Ave	1.132	1.128		9.97	10.0	-0.3	30.0
sec-Butylbenzene	Ave	1.643	1.651		10.0	10.0	0.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-25068-1
 SDG No.: _____
 Lab Sample ID: CCVIS 200-79579/2 Calibration Date: 10/30/2014 08:25
 Instrument ID: CHX.i Calib Start Date: 10/02/2014 18:14
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 10/03/2014 00:02
 Lab File ID: 10265-002.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.461	1.432		9.80	10.0	-2.0	30.0
1,3-Dichlorobenzene	Ave	0.9301	0.8358		8.98	10.0	-10.1	30.0
1,4-Dichlorobenzene	Ave	0.9041	0.8363		9.25	10.0	-7.5	30.0
Benzyl chloride	Ave	0.8314	1.003		12.1	10.0	20.6	30.0
n-Butylbenzene	Ave	1.288	1.328		10.3	10.0	3.1	30.0
n-Undecane	Ave	0.6592	0.8312		12.6	10.0	26.1	30.0
1,2-Dichlorobenzene	Ave	0.8379	0.7863		9.38	10.0	-6.2	30.0
n-Dodecane	Ave	0.5973	0.7996		13.4	10.0	33.9*	30.0
1,2,4-Trichlorobenzene	Ave	0.7148	0.7096		9.93	10.0	-0.7	30.0
Hexachlorobutadiene	Ave	0.6164	0.6442		10.4	10.0	4.5	30.0
Naphthalene	Ave	1.411	1.528		10.8	10.0	8.2	30.0
1,2,3-Trichlorobenzene	Ave	0.6705	0.6561		9.78	10.0	-2.1	30.0

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24163-1

SDG No.: _____

Instrument ID: CHC.i Start Date: 08/15/2014 08:47

Analysis Batch Number: 76115 End Date: 08/16/2014 08:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-76115/1		08/15/2014 08:47	1	9029_001.D	RTX-624 0.32 (mm)
VIBLK 200-76115/2		08/15/2014 09:36	1		RTX-624 0.32 (mm)
IC 200-76115/3		08/15/2014 10:29	1	9029_003.D	RTX-624 0.32 (mm)
IC 200-76115/4		08/15/2014 11:22	1	9029_004.D	RTX-624 0.32 (mm)
IC 200-76115/5		08/15/2014 12:16	1	9029_005.D	RTX-624 0.32 (mm)
IC 200-76115/6		08/15/2014 13:09	1	9029_006.D	RTX-624 0.32 (mm)
ICIS 200-76115/7		08/15/2014 14:01	1	9029_007.D	RTX-624 0.32 (mm)
IC 200-76115/8		08/15/2014 14:54	1	9029_008.D	RTX-624 0.32 (mm)
IC 200-76115/9		08/15/2014 15:47	1	9029_009.D	RTX-624 0.32 (mm)
IC 200-76115/10		08/15/2014 16:40	1	9029_010.D	RTX-624 0.32 (mm)
VIBLK 200-76115/11		08/15/2014 17:33	1		RTX-624 0.32 (mm)
VIBLK 200-76115/12		08/15/2014 18:26	1		RTX-624 0.32 (mm)
ICV 200-76115/13		08/15/2014 19:19	1	9029_013.D	RTX-624 0.32 (mm)
ZZZZZ		08/15/2014 20:12	1		RTX-624 0.32 (mm)
ZZZZZ		08/15/2014 21:06	1		RTX-624 0.32 (mm)
ZZZZZ		08/15/2014 21:58	1		RTX-624 0.32 (mm)
ZZZZZ		08/15/2014 23:32	10		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 00:25	10		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 01:18	10		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 02:12	10		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 03:05	1		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 03:58	1		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 04:51	1		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 05:45	1		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 06:38	22.2		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 07:31	1		RTX-624 0.32 (mm)
ZZZZZ		08/16/2014 08:24	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24163-1

SDG No.: _____

Instrument ID: CHC.i Start Date: 09/15/2014 08:16

Analysis Batch Number: 77217 End Date: 09/16/2014 07:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-77217/1		09/15/2014 08:16	1	9441_001.D	RTX-624 0.32 (mm)
CCVIS 200-77217/2		09/15/2014 09:10	1		RTX-624 0.32 (mm)
CCVIS 200-77217/3		09/15/2014 10:03	1	9441_003.D	RTX-624 0.32 (mm)
LCS 200-77217/4		09/15/2014 10:57	1	9441_004.D	RTX-624 0.32 (mm)
MB 200-77217/5		09/15/2014 11:50	1	9441_005.D	RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 12:48	0.2		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 13:47	0.2		RTX-624 0.32 (mm)
200-24163-10	2708	09/15/2014 14:45	0.2	9441_008.D	RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 15:39	3520		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 16:32	2960		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 17:25	2540		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 18:18	2570		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 19:11	445		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 20:04	1		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 20:57	1		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 21:51	1		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 22:44	5		RTX-624 0.32 (mm)
ZZZZZ		09/15/2014 23:37	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 00:30	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 01:23	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 02:17	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 03:10	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 04:03	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 04:56	2.99		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 05:50	1		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 06:48	0.2		RTX-624 0.32 (mm)
ZZZZZ		09/16/2014 07:47	0.2		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24861-1

SDG No.: _____

Instrument ID: CHG.i Start Date: 09/29/2014 13:54

Analysis Batch Number: 77938 End Date: 09/30/2014 10:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-77938/1		09/29/2014 13:54	1	9732_001.D	RTX-624 0.32 (mm)
VIBLK 200-77938/2		09/29/2014 14:39	1		RTX-624 0.32 (mm)
VIBLK 200-77938/3		09/29/2014 15:30	1		RTX-624 0.32 (mm)
VIBLK 200-77938/4		09/29/2014 16:21	1		RTX-624 0.32 (mm)
IC 200-77938/5		09/29/2014 17:12	1	9732_005.D	RTX-624 0.32 (mm)
IC 200-77938/6		09/29/2014 18:01	1	9732_006.D	RTX-624 0.32 (mm)
IC 200-77938/7		09/29/2014 18:52	1	9732_007.D	RTX-624 0.32 (mm)
ZZZZZ		09/29/2014 19:44	1		RTX-624 0.32 (mm)
ICIS 200-77938/9		09/29/2014 20:34	1	9732_009.D	RTX-624 0.32 (mm)
IC 200-77938/10		09/29/2014 21:25	1	9732_010.D	RTX-624 0.32 (mm)
IC 200-77938/11		09/29/2014 22:17	1	9732_011.D	RTX-624 0.32 (mm)
IC 200-77938/12		09/29/2014 23:08	1	9732_012.D	RTX-624 0.32 (mm)
VIBLK 200-77938/13		09/30/2014 00:00	1		RTX-624 0.32 (mm)
VIBLK 200-77938/14		09/30/2014 00:51	1		RTX-624 0.32 (mm)
ICV 200-77938/15		09/30/2014 01:42	1		RTX-624 0.32 (mm)
VIBLK 200-77938/16		09/30/2014 02:33	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 03:25	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 04:16	1		RTX-624 0.32 (mm)
VIBLK 200-77938/19		09/30/2014 08:04	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 08:55	1		RTX-624 0.32 (mm)
IC 200-77938/21		09/30/2014 09:46	1	9732_021.D	RTX-624 0.32 (mm)
ICV 200-77938/22		09/30/2014 10:37	1	9732_022.D	RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24861-1

SDG No.: _____

Instrument ID: CHG.i Start Date: 10/20/2014 10:53

Analysis Batch Number: 78929 End Date: 10/21/2014 09:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-78929/1		10/20/2014 10:53	1	10085_01.D	RTX-624 0.32 (mm)
CCVIS 200-78929/2		10/20/2014 11:54	1	10085_02.D	RTX-624 0.32 (mm)
LCS 200-78929/3		10/20/2014 12:45	1	10085_03.D	RTX-624 0.32 (mm)
MB 200-78929/4		10/20/2014 13:37	1	10085_04.D	RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 14:31	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 15:22	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 16:13	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 17:04	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 17:55	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 18:46	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 19:37	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 20:28	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 21:19	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 22:10	1		RTX-624 0.32 (mm)
ZZZZZ		10/20/2014 23:01	1		RTX-624 0.32 (mm)
200-24861-7	4918	10/20/2014 23:55	0.2	10085_16.D	RTX-624 0.32 (mm)
ZZZZZ		10/21/2014 00:48	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/21/2014 01:42	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/21/2014 02:36	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/21/2014 08:22	15		RTX-624 0.32 (mm)
ZZZZZ		10/21/2014 09:14	2.5		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24999-1

SDG No.: _____

Instrument ID: CHG.i Start Date: 09/29/2014 13:54

Analysis Batch Number: 77938 End Date: 09/30/2014 10:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-77938/1		09/29/2014 13:54	1	9732_001.D	RTX-624 0.32 (mm)
VIBLK 200-77938/2		09/29/2014 14:39	1		RTX-624 0.32 (mm)
VIBLK 200-77938/3		09/29/2014 15:30	1		RTX-624 0.32 (mm)
VIBLK 200-77938/4		09/29/2014 16:21	1		RTX-624 0.32 (mm)
IC 200-77938/5		09/29/2014 17:12	1	9732_005.D	RTX-624 0.32 (mm)
IC 200-77938/6		09/29/2014 18:01	1	9732_006.D	RTX-624 0.32 (mm)
IC 200-77938/7		09/29/2014 18:52	1	9732_007.D	RTX-624 0.32 (mm)
ZZZZZ		09/29/2014 19:44	1		RTX-624 0.32 (mm)
ICIS 200-77938/9		09/29/2014 20:34	1	9732_009.D	RTX-624 0.32 (mm)
IC 200-77938/10		09/29/2014 21:25	1	9732_010.D	RTX-624 0.32 (mm)
IC 200-77938/11		09/29/2014 22:17	1	9732_011.D	RTX-624 0.32 (mm)
IC 200-77938/12		09/29/2014 23:08	1	9732_012.D	RTX-624 0.32 (mm)
VIBLK 200-77938/13		09/30/2014 00:00	1		RTX-624 0.32 (mm)
VIBLK 200-77938/14		09/30/2014 00:51	1		RTX-624 0.32 (mm)
ICV 200-77938/15		09/30/2014 01:42	1		RTX-624 0.32 (mm)
VIBLK 200-77938/16		09/30/2014 02:33	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 03:25	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 04:16	1		RTX-624 0.32 (mm)
VIBLK 200-77938/19		09/30/2014 08:04	1		RTX-624 0.32 (mm)
ZZZZZ		09/30/2014 08:55	1		RTX-624 0.32 (mm)
IC 200-77938/21		09/30/2014 09:46	1	9732_021.D	RTX-624 0.32 (mm)
ICV 200-77938/22		09/30/2014 10:37	1	9732_022.D	RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-24999-1

SDG No.: _____

Instrument ID: CHG.i Start Date: 10/28/2014 09:37

Analysis Batch Number: 79449 End Date: 10/29/2014 08:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-79449/1		10/28/2014 09:37	1	10232_01.D	RTX-624 0.32 (mm)
CCVIS 200-79449/2		10/28/2014 10:29	1	10232_02.D	RTX-624 0.32 (mm)
VIBLK 200-79449/3		10/28/2014 11:26	1		RTX-624 0.32 (mm)
LCS 200-79449/4		10/28/2014 12:17	1	10232_04.D	RTX-624 0.32 (mm)
MB 200-79449/5		10/28/2014 13:08	1	10232_05.D	RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 13:59	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 14:50	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 15:42	2		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 16:33	6.06		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 17:24	2.99		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 18:15	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 19:06	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 19:57	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 20:48	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 21:39	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 22:30	1		RTX-624 0.32 (mm)
ZZZZZ		10/28/2014 23:21	1.5		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 00:12	2		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 01:03	2		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 01:54	1.25		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 02:45	1		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 03:37	1		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 04:28	1		RTX-624 0.32 (mm)
200-24999-5	3380	10/29/2014 05:22	0.2	10232_24.D	RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 06:15	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 07:09	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/29/2014 08:02	0.2		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25063-1

SDG No.: _____

Instrument ID: CHX.i Start Date: 10/02/2014 16:02

Analysis Batch Number: 78137 End Date: 10/03/2014 15:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-78137/1		10/02/2014 16:02	1	9815-001.D	RTX-624 0.32 (mm)
VIBLK 200-78137/2		10/02/2014 16:34	1		RTX-624 0.32 (mm)
VIBLK 200-78137/3		10/02/2014 17:24	1		RTX-624 0.32 (mm)
IC 200-78137/4		10/02/2014 18:14	1	9815-004.D	RTX-624 0.32 (mm)
IC 200-78137/5		10/02/2014 19:04	1	9815-005.D	RTX-624 0.32 (mm)
IC 200-78137/6		10/02/2014 19:54	1	9815-006.D	RTX-624 0.32 (mm)
IC 200-78137/7		10/02/2014 20:44	1	9815-007.D	RTX-624 0.32 (mm)
ICIS 200-78137/8		10/02/2014 21:33	1	9815-008.D	RTX-624 0.32 (mm)
IC 200-78137/9		10/02/2014 22:23	1	9815-009.D	RTX-624 0.32 (mm)
IC 200-78137/10		10/02/2014 23:13	1	9815-010.D	RTX-624 0.32 (mm)
IC 200-78137/11		10/03/2014 00:02	1	9815-011.D	RTX-624 0.32 (mm)
VIBLK 200-78137/12		10/03/2014 00:53	1		RTX-624 0.32 (mm)
VIBLK 200-78137/13		10/03/2014 01:42	1		RTX-624 0.32 (mm)
ICV 200-78137/14		10/03/2014 02:33	1	9815-014.D	RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 03:22	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 04:12	1		RTX-624 0.32 (mm)
VIBLK 200-78137/17		10/03/2014 09:13	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 10:03	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 10:53	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 11:43	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 12:33	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 13:22	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 14:12	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 15:01	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25063-1

SDG No.: _____

Instrument ID: CHX.i Start Date: 10/30/2014 07:37

Analysis Batch Number: 79579 End Date: 10/31/2014 07:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-79579/1		10/30/2014 07:37	1	10265-001.D	RTX-624 0.32 (mm)
CCVIS 200-79579/2		10/30/2014 08:25	1	10265-002.D	RTX-624 0.32 (mm)
LCS 200-79579/3		10/30/2014 09:15	1	10265-003.D	RTX-624 0.32 (mm)
MB 200-79579/4		10/30/2014 10:05	1	10265-004.D	RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 11:05	0.2		RTX-624 0.32 (mm)
200-25063-12	5685	10/30/2014 12:06	0.2	10265-006.D	RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 12:55	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 13:45	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 14:35	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 15:25	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 16:25	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 17:25	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 18:26	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 19:26	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 20:15	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 21:05	32		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 21:55	80.6		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 22:44	47.4		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 23:33	63.5		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 00:23	46.6		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 01:13	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 02:02	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 02:52	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 03:42	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 04:31	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 05:21	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 06:11	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 07:01	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25068-1

SDG No.: _____

Instrument ID: CHX.i Start Date: 10/02/2014 16:02

Analysis Batch Number: 78137 End Date: 10/03/2014 15:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-78137/1		10/02/2014 16:02	1	9815-001.D	RTX-624 0.32 (mm)
VIBLK 200-78137/2		10/02/2014 16:34	1		RTX-624 0.32 (mm)
VIBLK 200-78137/3		10/02/2014 17:24	1		RTX-624 0.32 (mm)
IC 200-78137/4		10/02/2014 18:14	1	9815-004.D	RTX-624 0.32 (mm)
IC 200-78137/5		10/02/2014 19:04	1	9815-005.D	RTX-624 0.32 (mm)
IC 200-78137/6		10/02/2014 19:54	1	9815-006.D	RTX-624 0.32 (mm)
IC 200-78137/7		10/02/2014 20:44	1	9815-007.D	RTX-624 0.32 (mm)
ICIS 200-78137/8		10/02/2014 21:33	1	9815-008.D	RTX-624 0.32 (mm)
IC 200-78137/9		10/02/2014 22:23	1	9815-009.D	RTX-624 0.32 (mm)
IC 200-78137/10		10/02/2014 23:13	1	9815-010.D	RTX-624 0.32 (mm)
IC 200-78137/11		10/03/2014 00:02	1	9815-011.D	RTX-624 0.32 (mm)
VIBLK 200-78137/12		10/03/2014 00:53	1		RTX-624 0.32 (mm)
VIBLK 200-78137/13		10/03/2014 01:42	1		RTX-624 0.32 (mm)
ICV 200-78137/14		10/03/2014 02:33	1	9815-014.D	RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 03:22	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 04:12	1		RTX-624 0.32 (mm)
VIBLK 200-78137/17		10/03/2014 09:13	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 10:03	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 10:53	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 11:43	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 12:33	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 13:22	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 14:12	1		RTX-624 0.32 (mm)
ZZZZZ		10/03/2014 15:01	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-25068-1

SDG No.: _____

Instrument ID: CHX.i Start Date: 10/30/2014 07:37

Analysis Batch Number: 79579 End Date: 10/31/2014 07:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-79579/1		10/30/2014 07:37	1	10265-001.D	RTX-624 0.32 (mm)
CCVIS 200-79579/2		10/30/2014 08:25	1	10265-002.D	RTX-624 0.32 (mm)
LCS 200-79579/3		10/30/2014 09:15	1	10265-003.D	RTX-624 0.32 (mm)
MB 200-79579/4		10/30/2014 10:05	1	10265-004.D	RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 11:05	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 12:06	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 12:55	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 13:45	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 14:35	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 15:25	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 16:25	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 17:25	0.2		RTX-624 0.32 (mm)
200-25068-9	3508	10/30/2014 18:26	0.2	10265-013.D	RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 19:26	0.2		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 20:15	1		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 21:05	32		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 21:55	80.6		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 22:44	47.4		RTX-624 0.32 (mm)
ZZZZZ		10/30/2014 23:33	63.5		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 00:23	46.6		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 01:13	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 02:02	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 02:52	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 03:42	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 04:31	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 05:21	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 06:11	1		RTX-624 0.32 (mm)
ZZZZZ		10/31/2014 07:01	1		RTX-624 0.32 (mm)


Shipping and Receiving Documents

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		Project Manager: <i>Heather Levin</i>		Samples Collected By: <i>JLU</i>		of		COCs												
Company: <i>Golden</i>	Phone: <i>204 Century Pl 67</i>	Project Manager:	Phone:	MA-APH	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type											
Address: <i>204 Century Pl 67</i>	City/State/Zip: <i>Wt. Cavendish VT</i>	Project Manager:	Phone:	Flow Controller ID	Canister ID	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Time Start	Time Stop											
Phone: <i>856-793-2005</i>	FAX: <i>856-793-2005</i>	Project Manager:	Phone:	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Temperature (Fahrenheit)	Interior											
Project Name: <i>Phoenix</i>	Site: <i>Phoenix</i>	Project Manager:	Phone:	Standard (Specify)	Rush (Specify)	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Interior	Start											
PO #		Project Manager:	Phone:	Analysis Turnaround Time	Standard (Specify)	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Interior	Stop											
		Project Manager:	Phone:	Site Contact: <i>24 Hwy</i>	TA Contact: <i>24 Hwy</i>	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Pressure (Inches of Hg)	Interior											
		Project Manager:	Phone:	Site Contact: <i>24 Hwy</i>	TA Contact: <i>24 Hwy</i>	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Pressure (Inches of Hg)	Start											
		Project Manager:	Phone:	Site Contact: <i>24 Hwy</i>	TA Contact: <i>24 Hwy</i>	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Pressure (Inches of Hg)	Stop											
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Stop)	Canister Vacuum in Field, "Hg (Start)	Canister ID	Flow Controller ID	TO-15	MA-APH	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	
<i>IA - M1</i>	<i>11/5/14</i>	<i>1500</i>	<i>1501</i>	<i>-32</i>	<i>-2</i>	<i>5129</i>	<i>-</i>													
<i>IA - M2</i>		<i>1510</i>	<i>1511</i>	<i>-32</i>	<i>-3</i>	<i>5084</i>	<i>-</i>													
<i>IA - M3</i>		<i>1517</i>	<i>1518</i>	<i>-32</i>	<i>-2</i>	<i>3264</i>	<i>-</i>													
<i>IA - M4</i>		<i>1528</i>	<i>1529</i>	<i>-32</i>	<i>-3</i>	<i>5080</i>	<i>-</i>													
<i>EA - M4 ED</i>		<i>1528</i>	<i>1529</i>	<i>-32</i>	<i>-1</i>	<i>2475</i>	<i>-</i>													
<i>IA - M5</i>		<i>1536</i>	<i>1537</i>	<i>-32</i>	<i>-1</i>	<i>3820</i>	<i>-</i>													
Special Instructions/QC Requirements & Comments:																				
<div style="text-align: center;">  <p>200-25225 Chain of Custody</p> </div>																				
Samples Shipped by: <i>Ry-White</i>										Date/Time: <i>11/5/14 1645</i>										
Samples Relinquished by:										Date/Time:										
Relinquished by:										Date/Time:										
Lab Use Only										Shipper Name:										
Opened by:										Condition:										
Sample Received by: <i>YABUN</i>										Date/Time: <i>11/6/14 1030</i>										
Received by:										Date/Time:										
Received by:										Date/Time:										

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Client Contact Information

Company: Golden
Address: 200 Century Bldg.
City/State/Zip: Nat. Centre Rd.
Phone: 856-793-2005
FAX: 856-793-2005

Project Name: Phoenix

Site:

PO #

Project Manager: Heather Lin

Phone: 856-793-2005

Email: shuffman@golder.com

Site Contact:

TA Contact:

Analysis Turnaround Time

Standard (Specify)

Rush (Specify)

Samples Collected By: JCH

of 1 COCs

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	MA-APH	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)						
													Landfill Gas	Soil Gas	Ambient Air	Indoor Air	Sample Type		
IA-M6	11/5/14	1545	1546	-32	-2	-	3419	X											
IA-M7	11/5/14	1554	1555	-32	-3	-	5634	X											
IA-M8	11/5/14	1614	1615	-30	-3	-	4118	X											

Temperature (Fahrenheit)	
Interior	Ambient
Start	
Stop	

Pressure (inches of Hg)	
Interior	Ambient
Start	
Stop	

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Ry-Walk
Date/Time: 11/5/14 1645
Samples Relinquished by: [Signature]
Date/Time: 11/5/14 1645
Samples Received by: [Signature]
Date/Time: 11/6/14 1030
Relinquished by: _____
Date/Time: _____
Received by: _____
Date/Time: _____

Lab Use Only Shipper Name: _____ Condition: _____
Opened by: _____



8064 6152 1483

0200

Package up to 150 lbs.
For packages over 150 lbs. use the new
FedEx Express Freight US Airbill.

1 From
 Date: 1/17/11
 Sender's Name: [Redacted]
 Company: Colter Associates
 Address: 200 Columbia Parkway
 City: WA Land
 State: WA ZIP: 98048
 Dept./Floor/Suite/Room: [Redacted]

2 Your Internal Billing Reference
 [Redacted]

3 To
 Recipient's Name: Tech America
 Company: Tech America
 Address: 30 Columbia Parkway
 City: Seattle WA
 State: WA ZIP: 98101
 Dept./Floor/Suite/Room: [Redacted]

4 Express Package Service

NOTE: Service order has changed. Please select carefully.

US BUSINESS DAY

FedEx First Overnight
 Earliest next business day morning delivery to select
 ZIP codes. FedEx shipments will be delivered on
 Monday unless SATURDAY Delivery is selected.

FedEx Priority Overnight
 Next business day by Friday shipments will be
 delivered. Monday unless SATURDAY Delivery
 is selected.

FedEx Standard Overnight
 Next business day by afternoon.*

FedEx 2Day A.M.
 Second business morning.
 Saturday Delivery NOT available.

FedEx 2Day
 Second business afternoon.* Thursday shipments
 will be delivered on Friday unless SATURDAY
 Delivery is selected.

FedEx Express Saver
 Third business day. NOT available.
 Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.
 FedEx Envelope*
 FedEx Pak*
 FedEx Box
 FedEx Tube
 Other

6 Special Handling and Delivery Signature Options

SATURDAY Delivery
 NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required
 Package may be left without
 obtaining a signature for delivery.

Direct Signature
 Someone at recipient address
 may sign for delivery. Fee applies.
 residential deliveries only. Fee applies.

Indirect Signature
 If no one is available at recipient's
 address, someone at a nearby
 address may sign for delivery. Fee applies.
 residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

No
 Yes
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging
 or placed in a FedEx Express Drop Box.

Yes
 Shipper's Declaration
 not required.

Yes
 Shipper's Declaration
 required.

Dry Ice
 Dry Ice 3.0L (8.45 oz) x _____ kg

Cargo Aircraft Only

7 Payment

Bill to: Enter FedEx Acct. No. or Credit Card No. below.

Sender's Account
 Recipient
 Third Party
 Credit Card
 Cash/Check

Total Packages: [Redacted] Total Weight: [Redacted] lbs.

Credit Card Auth. [Redacted]



8064 6152 1483

Rev. Date 1/12 - Part 1/10/02 - ©2012 FedEx - PRINTED IN U.S.A. SIF

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 200-25225-1

SDG Number: 200-25225-1

Login Number: 25225

List Source: TestAmerica Burlington

List Number: 1

Creator: Young, Joseph W

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

APPENDIX H
DATA USABILITY SUMMARY REPORT

Appendix H
Data Usability Summary Report
Remedial Investigation Report / Focused Feasibility Study
Phoenix Property
Long Island City, Queens, New York

This report presents the findings of the data quality assessment performed on the analyses of environmental samples collected for the Remedial Investigation Report / Focused Feasibility Study. Sampling events were conducted at the Phoenix Property Site (Site), located at 37-88 Review Avenue in Long Island City, Queens, New York. In accordance with the Quality Assurance Project Plan (QAPP)¹, the chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Air, soil, groundwater, and LNAPL (light non-aqueous phase liquid) samples were collected from the site during multiple sampling events between March 2014 and September 2014:

Air

- March 24-26, 2014;
- April 11, 2014;

Soil

- April 9-21, 2014;

Groundwater

- August 20, 2014;

LNAPL

- August 18-19, 2014; and
- September 3, 2014.

A total of 17 primary air samples, 12 primary soil samples, one (1) primary groundwater sample, and 16 primary LNAPL samples were collected from the Site. In addition, the following Quality Assurance/Quality Control (QA/QC) samples were collected:

- Nine trip blanks;
- One rinsate blank;
- Three matrix spike / matrix spike duplicate (MS/MSD) samples; and
- Four field duplicate samples.

¹ Quality Assurance Project Plan, Appendix B of the Remedial Investigation / Focused Feasibility Study Work Plan for the Phoenix Property; Golder, December 2013.

Air samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) of Burlington, Vermont. Soil samples were analyzed by TestAmerica of Edison, New Jersey. Groundwater samples were analyzed by TestAmerica of Edison, New Jersey and TestAmerica of Buffalo, New York (dissolved gases and alkalinity only). LNAPL samples were analyzed by TestAmerica of Edison, New Jersey, TestAmerica of North Canton, Ohio (metals and total organic halide analyses only), and Texas OilTech Laboratories, L.P. of Houston, Texas (Density, Viscosity, Surface Tension, Interfacial Tension, % Sulfur, % Sediment, Flash Point, and British Thermal Units (BTU) only). The laboratories completed all analyses utilizing the following method guidelines:

- TCL VOCs +10 tentatively identified compounds (TICs) by United States Environmental Protection Agency (USEPA) SW-846² Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (August 2006);
- TCL VOCs by USEPA Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS) (January 1999), and TO-15 LL (Low-Level) Supplement to EPA Compendium TO-15 – Reduction of Method Detection Limits to Meet Vapor Intrusion Monitoring Needs;
- TCL SVOCs + 20 TICs by USEPA SW-846 Method 8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (February 2007);
- TCL Polychlorinated Biphenyls (PCBs) by SW-846 Method 8082, Polychlorinated Biphenyls (PCBs) by Gas Chromatography (December 1996);
- TAL Metals by USEPA SW-846 Method 6010C, Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES) (February 2007);
- TAL Metals by USEPA SW-846 Method 6020A, Inductively Coupled Plasma-Mass Spectrometry (February 2007);
- Mercury by USEPA SW-846 Method 7470A, Mercury in Liquid Waste (Manual Cold-Vapor Technique) (September 1994);
- Mercury by USEPA SW-846 Method 7471A, Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique) (September 1994);
- Cyanide by USEPA SW-846 9012B, Total and Amenable Cyanide (Automated Colorimetric, with Off-Line Distillation) (November 2004);
- Alkalinity by Standard Method (SM)³ 2320B, Alkalinity Titration, Standard Methods 20th Edition (1998);
- Total and Dissolved Organic Carbon (DOC and TOC) by SW-846 9060A, Total Organic Carbon (November 2004);
- Nitrate by USEPA Methods for Chemical Analysis of Water and Wastes (MCAWW)⁴ Method 353.2, Determination of Nitrate-Nitrite Nitrogen by Automated Colorimetry (August 1993);

² USEPA, 1996, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846): 3rd edition, Environmental Protection Agency, National Center for Environmental Publications, Cincinnati, Ohio, accessed at URL <http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm>.

³ Standard Methods for the Examination of Water and Waste Water, accessed at URL <http://standardmethods.org>.

⁴ USEPA, 1983, Methods for Chemical Analysis of Water and Wastes, EPA600/4-79-20, Office of Research and Development, Washington, D.C, accessed at URL <http://water.epa.gov/scitech/methods/cwa/>.

- Sulfate by ASTM Standard⁵ D516, Standard Test Method for Sulfate Ion in Water (September 2011);
- Carbon Dioxide (CO₂) by SM 4500, CO₂ Carbon Dioxide (1997);
- Chloride by SM 4500 Cl E, Automated Ferricyanide Method (1997);
- Total Dissolved Solids (TDS) by SM 2540C (Calculated), Total Dissolved Solids Dried at 180 °C (1997);
- Methane, Ethane, Ethene (MEE) by USEPA Method RSK SOP-175, Revision No. 2, Sample Preparation and Calculations for Dissolved Gas Analysis in Water Samples Using a GC Headspace Equilibration Technique (May 2004);
- Gasoline Range Organics (GRO), Diesel Range Organics (DRO), Mineral Range Organics (MRO), and Gas Chromatogram (GC) Fingerprint by USEPA SW-846 8015B (Modified), Non-halogenated Organics Using GC/FID (December 1996);
- Total Organic Halides (TOX) by USEPA SW-846 9023, Extractable Organic Halides in Solids (December 1996);
- Density by ASTM Standard D1298, Standard Test Method for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method (June 2012);
- Viscosity by ASTM Standard D445, Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity (July, 2014);
- Surface and Interfacial Tension by ASTM Standard D971, Standard Test Method for Interfacial Tension of Oil against Water by the Ring Method (May 2012).
- % Sulfur by ASTM Standard D129, Standard Test Method for Sulfur in Petroleum Products (General High Pressure Decomposition Device Method) (June 2013), and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy Dispersive X-ray Fluorescence Spectrometry (February 2010);
- % Sediment by ASTM Standard D1796, Standard Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure) (June 2011);
- Flash Point by ASTM Standard D92, Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester (December 2012), and D93, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester (July 2013); and,
- BTU by ASTM Standard D240, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (July 2009).

Information regarding the sample point identifications, analytical methods, QC samples, sampling dates, and contract laboratory sample delivery group (SDG) designations are summarized in Table H-1.

Data were evaluated for completeness, general method conformance, holding times, blank contamination, laboratory control samples, surrogate and spike recoveries, field precision, precision of duplicate measurements, and calibration and instrument performance. Analytical results were reported in NYSDEC ASP Category B Data Deliverables format, suitable for data evaluation. Data evaluation was performed by Golder Associates Inc. following guidelines provided by the USEPA Region II Standard Operating Procedures (SOPs) shown below, where applicable to the analytical methodologies previously

⁵ American Society of Testing and Materials, ASTM International, West Conshohocken, PA, accessed at URL <http://www.astm.org>

noted. When there was a conflict between the Region II guidelines and the analytical methodology, method-specific criteria and professional judgment were used.

- HW-24, Validating Volatile Organic Compounds by GCMS SW846 Method 8260B, Revision 2 (August 2008);
- HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15, Revision 4 (October 2006);
- HW-22, Validating Semivolatile Organic Compounds by GCMS SW846 Method 8270D, Revision 4 (August 2008);
- HW-45, Validating PCB Compounds by GC SW846 Method 81082A, Revision 2 (October 2006);
- HW-2a ICP-AES Data Validation (December 2012);
- HW-2b ICP-MS Data Validation (December 2012); and,
- HW-2c Mercury and Cyanide Data Validation (December 2012).

Physical parameters analyzed by Texas OilTech Laboratories (density, viscosity, surface tension, interfacial tension, TOC, % sulfur, % sediment, flash point, and BTU) following ASTM Standards were not evaluated as part of this data usability summary; as no QC information is provided for these analyses, the associated results were only reviewed for completeness.

In general, chemical results for the samples collected at the Site were qualified on the basis of outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide a brief explanation of the qualifiers which may have been assigned to data during the data evaluation process.

- | | |
|-----------|---|
| U | The analyte was analyzed for, but was not detected at a level greater than or equal to the reporting limit (RL) for sample and method. |
| J | The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the RL). |
| UJ | The analyte was not detected at a level greater than or equal to the RL. However, the RL is approximate and may be inaccurate or imprecise. |
| R | The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample. |

Table H-2 summarizes all qualifications applied to the data, with applicable qualifier codes. A summary of the analytical results is presented in Tables 6 through 11 of the Remedial Investigation Report / Focused Feasibility Study. In general, the data generated during the sampling events met the QC criteria established in the respective USEPA methods, Standard Methods, Region II SOPs, and the QAPP, with the exception of the following bulleted items highlighting qualifications to specific parameters. Although

these qualifications were applied to some of the samples collected at the site, the qualifications may not have been required or applied to all samples collected.

Air

- All results for indoor air sample IA-2 and ambient/outdoor air sample OA-1-032414 were qualified as estimated (J for detect results, UJ for non-detect results) because the laboratory added additional make-up air to the samples due to high residual vacuum. While the addition of make-up air is standard practice, it does cause quantification of analytical results to be considered estimated.
- All indoor air and outdoor/ambient air samples were analyzed for carbon tetrachloride, trichloroethene, and vinyl chloride by both USEPA Method TO-15 and USEPA Method TO-15 LL. In order for the reporting limits to satisfy project reporting requirements, results from the TO-15 LL analysis were deemed reportable, and results from the TO-15 method were non-reportable. No qualification of the results was warranted.

Soil

- Toluene in sample GAL-37-5-7 was qualified as non-detect (U) and reported at the RL due to laboratory blank contamination.
- Certain metal results were qualified as estimated (J for detect results, UJ for non-detect results) when MS recoveries were below QC criteria.
- Certain cyanide results were rejected (R) when MS recoveries were below 30%.
- Certain lead and zinc results were qualified as estimated (J) when the laboratory duplicate precision was above QC criteria.
- Certain non-detect VOC results were qualified as estimated (UJ) when associated laboratory internal standard responses were outside QC criteria.
- Certain VOC, SVOC, and PCB results were qualified as estimated (J for detect results, UJ for non-detect results) when laboratory calibration samples were outside QC criteria.

Groundwater

- Carbon dioxide results were qualified as estimated (J) when the samples were analyzed outside of the method-specific holding time.
- Non-detect atrazine results were qualified as estimated (UJ) when the laboratory control sample (LCS) recovery was below QC criteria.
- Nitrate and cyanide results were qualified as estimated (J for detect results, UJ for non-detect results) when MS/MSD recoveries were below QC criteria.
- 3,3'-Dichlorobenzidine results were rejected (R) when MS recoveries were grossly below QC criteria.
- Certain VOC and metals results were qualified as estimated (J) when field duplicate precision was above QC criteria.
- Certain non-detect SVOC results were qualified as estimated (UJ) when laboratory calibration samples were outside QC criteria.

LNAPL

- Certain potassium and barium results were qualified as non-detect (U) and reported at the RL due to laboratory blank contamination.

- Certain detected SVOC results for samples GAL-08 and MW-55 were qualified as estimated (J) when surrogate recoveries were above QC criteria.
- Certain SVOC results for samples GAL-32, MW-6S, GAL-14, GAL-37, and GAL-17 were qualified as estimated (J for detect results, UJ for non-detect results) when surrogate recoveries were below QC criteria.
- Certain detected SVOC results were qualified as estimated (J) and certain non-detect results were rejected (R) when MS/MSD recoveries were grossly below QC criteria.
- Certain VOC and SVOC results were qualified as estimated (J for detect results, UJ for non-detect results) when laboratory calibration verification samples were outside QC criteria.

Based on the data evaluations and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data but excluding rejected data) for their intended use. The overall data completeness (i.e. the ratio of the amount of valid data obtained to the amount expected, including estimated data (J/UJ)) was 100% for air samples, 99.8% for soil samples, 99.4% for groundwater samples, and 98.6% for LNAPL samples.

**Table H-1
Data Qualifications
Remedial Investigation Report / Focused Feasibility Study
Phoenix Property
Long Island City, Queens, New York**

SDG	Matrix	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
200-21557-1	Indoor Air	IA-2	All results	-	-	J/UJ	Make-up air added due to high residual vacuum
200-21557-1	Ambient/Outdoor Air	OA-1-032414	All results	-	-	J/UJ	Make-up air added due to high residual vacuum
200-21557-1	Indoor Air	IA-1	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
200-21557-1	Indoor Air	IA-2	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
200-21557-1	Indoor Air	IA-3	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
200-21557-1	Indoor Air	IA-4	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
200-21557-1	Ambient/Outdoor Air	OA-1-032414	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
200-21557-1	Ambient/Outdoor Air	OA-2-032414	Carbon tetrachloride, Trichloroethene, and Vinyl chloride	-	-	-	Method EPA TO-15 LL results are reportable, method EPA TO-15 results are not reportable
460-74084-1	Soil	GAL-37-5-7	Toluene	0.0011	-	U	Laboratory extraction blank contamination
460-74084-1	Soil	GAL-34-0-2	Barium	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-0-2	Cobalt	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-0-2	Chromium	-	-	J	MS recovery below 30%
460-74084-1	Soil	GAL-34-0-2	Nickel	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-0-2	Antimony	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-0-2	Cyanide	-	-	R	MS recovery below 30%
460-74084-1	Soil	GAL-34-5-7	Barium	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-5-7	Cobalt	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-5-7	Chromium	-	-	J	MS recovery below 30%
460-74084-1	Soil	GAL-34-5-7	Nickel	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-5-7	Antimony	-	-	UJ	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-5-7	Cyanide	-	-	R	MS recovery below 30%
460-74084-1	Soil	GAL-34-18-20	Barium	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-18-20	Cobalt	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-18-20	Chromium	-	-	J	MS recovery below 30%
460-74084-1	Soil	GAL-34-18-20	Nickel	-	-	J	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-18-20	Antimony	-	-	UJ	MS recovery below QC criteria
460-74084-1	Soil	GAL-34-18-20	Cyanide	-	-	R	MS recovery below 30%
460-74084-1	Soil	GAL-34-0-2	Lead	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-34-0-2	Zinc	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-34-5-7	Lead	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-34-5-7	Zinc	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-34-18-20	Lead	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-34-18-20	Zinc	-	-	J	Laboratory duplicate precision above QC criteria
460-74084-1	Soil	GAL-36-0-2	Bromomethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-0-2	Trichlorofluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-5-7	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-5-7	Chlorobromomethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-5-7	Carbon tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-10-12	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-10-12	Chlorobromomethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-10-12	Carbon tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Chlorobromomethane	-	-	UJ	CCV %D outside QC criteria

**Table H-1
Data Qualifications
Remedial Investigation Report / Focused Feasibility Study
Phoenix Property
Long Island City, Queens, New York**

SDG	Matrix	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
460-74084-1	Soil	GAL-35-10-12	Carbon tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Chlorobromomethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Carbon tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-5-7	Dichlorodifluoromethane	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-0-2	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-0-2	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-0-2	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-0-2	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-0-2	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-0-2	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-0-2	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-0-2	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-5-7	Pyrene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-5-7	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-5-7	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-10-12	4-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-10-12	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-5-7	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-10-12	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Bis(2-ethylhexyl) phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Benzo[b]fluoranthene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Bis(2-ethylhexyl) phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Benzo[b]fluoranthene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Bis(2-ethylhexyl) phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Benzo[b]fluoranthene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	Bis(2-ethylhexyl) phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-5-7	Benzo[b]fluoranthene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-18-20	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-18-20	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-18-20	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria

Table H-1
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SDG	Matrix	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
460-74084-1	Soil	GAL-34-18-20	Bis(2-ethylhexyl) phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-18-20	Di-n-octyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-34-18-20	Benzo[b]fluoranthene	-	-	J	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-5-7	Aroclor 1260	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-36-10-12	Aroclor 1260	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-5-7	Aroclor 1260	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12	Aroclor 1260	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-35-10-12FD	Aroclor 1260	-	-	UJ	CCV %D outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,2-Dichlorobenzene	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,3-Dichlorobenzene	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,4-Dichlorobenzene	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,2-Dibromo-3-Chloropropane	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,1,2,2-Tetrachloroethane	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,2,3-Trichlorobenzene	-	-	UJ	Internal standard response outside QC criteria
460-74084-1	Soil	GAL-37-10-12	1,2,4-Trichlorobenzene	-	-	UJ	Internal standard response outside QC criteria
460-81460-1	GW	GAL-15	Carbon Dioxide	-	-	J	Analyzed outside of hold time
460-81460-1	GW	GAL-15FD	Carbon Dioxide	-	-	J	Analyzed outside of hold time
460-81460-1	GW	GAL-15	Atrazine	-	-	UJ	LCS recovery below QC criteria
460-81460-1	GW	GAL-15FD	Atrazine	-	-	UJ	LCS recovery below QC criteria
460-81460-1	GW	GAL-15	3,3'-Dichlorobenzidine	-	-	R	MS/MSD recovery grossly below QC criteria
460-81460-1	GW	GAL-15FD	3,3'-Dichlorobenzidine	-	-	R	MS/MSD recovery grossly below QC criteria
460-81460-1	GW	GAL-15	Nitrate	-	-	UJ	MS/MSD recovery below QC criteria
460-81460-1	GW	GAL-15FD	Nitrate	-	-	J	MS/MSD recovery below QC criteria
460-81460-1	GW	GAL-15	Cyanide	-	-	UJ	MS/MSD recovery below QC criteria
460-81460-1	GW	GAL-15FD	Cyanide	-	-	UJ	MS/MSD recovery below QC criteria
460-81460-1	GW	GAL-15	1,1,1-Trichloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	1,1,2-Trichloro-1,2,2-trifluoroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	1,1-Dichloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	1,1-Dichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	1,2-Dichlorobenzene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	1,4-Dichlorobenzene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Chloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	cis-1,2-Dichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Ethylbenzene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Methyl tert-butyl ether	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Methylcyclohexane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Trichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Vinyl chloride	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Aluminum	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,1,1-Trichloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,1,2-Trichloro-1,2,2-trifluoroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,1-Dichloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,1-Dichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,2-Dichlorobenzene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	1,4-Dichlorobenzene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Chloroethane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	cis-1,2-Dichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Ethylbenzene	-	-	J	Field duplicate precision above QC criteria

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<i>SDG</i>	<i>Matrix</i>	<i>Sample Name</i>	<i>Constituent</i>	<i>New Result</i>	<i>New RL</i>	<i>Qualifier</i>	<i>Reason</i>
460-81460-1	GW	GAL-15FD	Methyl tert-butyl ether	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Methylcyclohexane	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Trichloroethene	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Vinyl chloride	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15FD	Aluminum	-	-	J	Field duplicate precision above QC criteria
460-81460-1	GW	GAL-15	Nitrobenzene	-	-	UJ	CCV %D outside QC criteria
460-81460-1	GW	GAL-15	2-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-81460-1	GW	GAL-15	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria
460-81460-1	GW	GAL-15FD	Nitrobenzene	-	-	UJ	CCV %D outside QC criteria
460-81460-1	GW	GAL-15FD	2-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-81460-1	GW	GAL-15FD	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	Potassium	476	-	U	Laboratory method blank contamination
460-81388-1	LNAPL	GAL-16R	Potassium	435	-	U	Laboratory method blank contamination
460-81388-1	LNAPL	GAL-08	Acetone	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	Benzo[a]anthracene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	GAL-08	Benzo[a]pyrene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	GAL-08	Benzo[b]fluoranthene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	GAL-08	Chrysene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	MW-55	2-Methylnaphthalene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	MW-55	Benzo[a]anthracene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	MW-55	Phenanthrene	-	-	J	Surrogate recoveries above QC criteria
460-81388-1	LNAPL	GAL-16R	Acetone	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	Acetone	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-16R	N-Nitrosodi-n-propylamine	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-16R	Isophorone	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-16R	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-16R	2-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-16R	Butyl benzyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	N-Nitrosodi-n-propylamine	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	Isophorone	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	2-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	MW-55	Butyl benzyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	N-Nitrosodi-n-propylamine	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	2-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-81388-1	LNAPL	GAL-08	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	Potassium	450	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-17	Potassium	442	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-26	Potassium	442	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-32	Potassium	431	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-33	Potassium	376	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-35	Potassium	463	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-36	Potassium	417	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-37	Potassium	467	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	MW-6	Potassium	352	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	MW-6S	Potassium	450	-	U	Laboratory method blank contamination

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<i>SDG</i>	<i>Matrix</i>	<i>Sample Name</i>	<i>Constituent</i>	<i>New Result</i>	<i>New RL</i>	<i>Qualifier</i>	<i>Reason</i>
460-81406-1	LNAPL	MW-8	Potassium	439	-	U	Laboratory method blank contamination
460-81406-1	LNAPL	GAL-32	All acid-extractable SVOC results	-	-	UJ	Surrogate recoveries below QC criteria
460-81406-1	LNAPL	MW-6S	All acid-extractable SVOC results	-	-	UJ	Surrogate recoveries below QC criteria
460-81406-1	LNAPL	GAL-14	All acid-extractable SVOC results	-	-	UJ	Surrogate recoveries below QC criteria
460-81406-1	LNAPL	GAL-37	All acid-extractable SVOC results	-	-	UJ	Surrogate recoveries below QC criteria
460-81406-1	LNAPL	GAL-17	All SVOC results	-	-	J/UJ	Surrogate recoveries below QC criteria
460-81406-1	LNAPL	GAL-17	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-32	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-6S	1,2,3-Trichlorobenzene	-	-	J	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-6	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-14	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-8	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-26	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-33	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-35	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-36	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-36FD	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-37	1,2,3-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-17	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-32	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-6S	1,2,4-Trichlorobenzene	-	-	J	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-6	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-14	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-8	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-26	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-33	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-35	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-36	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-36FD	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	GAL-37	1,2,4-Trichlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-81406-1	LNAPL	MW-6	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-8	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-8	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6S	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6S	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6S	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6S	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-81406-1	LNAPL	MW-6S	Benzo[g,h,i]perylene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-14	Benzo[g,h,i]perylene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-17	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-17	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-17	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-17	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria

**Table H-1
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SDG	Matrix	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
460-81406-1	LNAPL	GAL-17	Benzo[g,h,i]perylene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-32	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-32	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-32	Indeno[1,2,3-cd]pyrene	-	-	J	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-32	Dibenz(a,h)anthracene	-	-	J	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-32	Benzo[g,h,i]perylene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	2,2'-oxybis[1-chloropropane]	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	1,2,4,5-Tetrachlorobenzene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	Diethyl phthalate	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	Dibenz(a,h)anthracene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-37	Benzo[g,h,i]perylene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-26	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-26	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-33	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-33	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-35	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-35	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-36	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-36	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-36FD	Hexachlorocyclopentadiene	-	-	UJ	CCV %D outside QC criteria
460-81406-1	LNAPL	GAL-36FD	Indeno[1,2,3-cd]pyrene	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	Potassium	472	-	U	Laboratory method blank contamination
460-82227-1	LNAPL	MW-54	Barium	18.9	-	U	Laboratory method blank contamination
460-82227-1	LNAPL	MW-56	Barium	19.8	-	U	Laboratory method blank contamination
460-82227-1	LNAPL	MW-54	1,2,4,5-Tetrachlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	2,2'-oxybis[1-chloropropane]	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	4-Bromophenyl phenyl ether	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	4-Chloroaniline	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Bis(2-chloroethoxy)methane	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Bis(2-ethylhexyl) phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Butyl benzyl phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Diethyl phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Isophorone	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	1,2,4,5-Tetrachlorobenzene	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	2,2'-oxybis[1-chloropropane]	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	4-Bromophenyl phenyl ether	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	4-Chloroaniline	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	Bis(2-chloroethoxy)methane	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	Bis(2-ethylhexyl) phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	Butyl benzyl phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	Diethyl phthalate	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-56	Isophorone	-	-	R	MS/MSD recovery grossly below QC criteria
460-82227-1	LNAPL	MW-54	Carbon Tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	2-Hexanone	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	Chlorodibromomethane	-	-	UJ	CCV %D outside QC criteria

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SDG	Matrix	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
460-82227-1	LNAPL	MW-54	Bromoform	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	3-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	2,4-Dinitrophenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	4-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	4,6-Dinitro-2-methylphenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-54	Fluoranthene	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	Carbon Tetrachloride	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	2-Hexanone	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	Chlorodibromomethane	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	Bromoform	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	Caprolactam	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	3-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	2,4-Dinitrophenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	4-Nitrophenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	2,4-Dinitrotoluene	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	4-Nitroaniline	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	4,6-Dinitro-2-methylphenol	-	-	UJ	CCV %D outside QC criteria
460-82227-1	LNAPL	MW-56	Fluoranthene	-	-	UJ	CCV %D outside QC criteria

Abbreviations:

%D - Percent Difference
 CCV - Continuing Calibration Verification
 GW - Groundwater
 LCS - Laboratory Control Sample
 LNAPL - Light Non-Aqueous Phase Liquid
 MS/MSD - Matrix Spike / Matrix Spike Duplicate
 QC - Quality Control
 RL - Reporting Limit
 SDG - Sample Delivery Group

Qualifiers:

U The analyte was analyzed for, but was not detected at a level greater than or equal to the reporting limit (RL) for sample and
J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration
UJ The analyte was not detected at a level greater than or equal to the RL. However, the RL is approximate and may be inaccurate
R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.