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April 5, 2016

Ms. Lynn Dittmer
Metropolitan Area Planning Agency
2222 Cuming Street
Omaha, NE 68102

Re: South Omaha Brownfields Coalition Assessment Grant
Phase II ESA Report
Dorothy Patach Environmental Area
4903 South 20th Street, Omaha, NE

Attention Ms. Dittmer:

The purpose of this letter is to summarize the Phase II Environmental Site Assessment (ESA) sampling activities that were performed by Alfred Benesch & Company (Benesch) at the Dorothy Patach Environmental Area (Property) located at 4903 S. 20th Street in Omaha. This Phase II ESA is being prepared for the Metropolitan Area Planning Agency (MAPA) and was conducted as part of the South Omaha Brownfields Coalition Assessment Grant being administered by MAPA. A Phase I ESA (Benesch, August 2015) was previously prepared for this site. The Phase I ESA report identified *recognized environmental conditions* (RECs) associated with the historical use of the adjacent property to the north across 'N' Street as an auto repair facility. The Phase I ESA also identified the location of the Property within the bounds of the Omaha Lead Site (OLS) as a REC.

The activities conducted as part of the Phase II ESA included sub-surface soil, soil vapor and groundwater sampling at the Property. Field work was performed in general conformance with ASTM Standard E1903-11 for Phase II Environmental Site Assessments, the *Phase II Investigation Work Plan, Dorothy Patach Environmental Area, 4903 S. 20th Street, Omaha* (Benesch, January 2016), the project and site specific QAPP, and soil, soil vapor, and groundwater SOPs.

Field work for the soil and groundwater sampling was conducted on February 24th and 25th, 2016, while field work to conduct the soil vapor sampling was conducted on February 26, 2016. Prior to field work, Benesch notified the Nebraska One Call System for utility locates. All soil, soil vapor, and groundwater results were compared to Nebraska Department of Environmental Quality (NDEQ) Remedial Goals (RGs) for residential and industrial standards under the Voluntary Cleanup Program (VCP). The Phase II assessment project area is depicted on the attached Site Location Map (Figures 1 and 2).

As a result of the findings of this Phase II ESA, there are no concerns with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site for industrial purposes.

Field Activities

Soil Sampling

Benesch advanced fourteen (14) borings (SB-1 through SB-14) at the project site; along the north Property line across from the former repair facility and the northwest corner, along the east and south edges of the open field, and the middle of the Property. The boring locations are depicted on the attached Boring Location Diagram Map (Figure 3).

The project site borings were advanced in conformance with the Phase II Work Plan based on historical site operations, the OLS, estimated contaminant migration, and parcel boundaries. The objective of advancing borings at the project site is to assess the potential presence of soil, soil vapor and groundwater impacts resulting from the historic uses of the Property.

The borings were installed using a track mounted Geoprobe unit operated by Saberprobe, LLC of Omaha, NE. The samples were collected using Macro-Core samplers fitted with polyvinyl chloride (PVC) liners. With the exception of SB-2, SB-6, and SB-7, borings were advanced to a depth of 15' below ground surface (bgs). Borings SB-2 and SB-6 were advanced to 30' bgs, and SB-7 was advanced to 24' bgs for the purpose of collecting groundwater samples at these locations. Groundwater was sampled from SB-6; however, groundwater was not encountered at SB-2 and SB-7; therefore, no groundwater samples were collected at these locations.

Composite samples were collected for field screening purposes from the 0-3', 3-7', 7-11' and 11-15' intervals. The composite soil samples were split into two aliquots with one aliquot placed in a glass jar, covered with aluminum foil and allowed to equilibrate at ambient temperature (minimum of 65 deg. F) for a minimum of 15 minutes. A headspace analysis of each equilibrated sample was conducted using a field photoionization detector (PID) equipped with a 10.7 eV bulb. The remaining aliquot was placed into one 4-ounce jar, sealed and packed on ice.

Fill material, including a mixture of brick rubble, crushed rock, cinders, glass, and clay was observed in all borings with the exception of SB-2, SB-3, and SB-7. In general, fill material was observed throughout the entire depth of the borings. Discolored soils (black and green) and/or slight odors indicative of petroleum impacts were observed in project site borings SB-6, SB-7, SB-8, SB-10, and SB-11. PID readings ranged from <2 to 262 ppm across the site; however, the higher PID readings were observed on the eastern half of the site (SB-6, SB-7, and SB-8). Boring logs for all project site borings advanced during field work are provided as an attachment to this report. All borings advanced at the project site were backfilled with hydrated bentonite chips upon completion, and the surface was generally restored to its original condition. Due to the relatively low PID readings and lack of impacts observed, soil cuttings were not containerized and were left at the project site.

Soil samples were collected from the 0-3' interval from borings SB-1 through SB-5 for Total RCRA metals plus mercury analysis by EPA method 6010C/7471B. Soil samples were collected from SB-3 (7-11'), SB-6 (11-15'), SB-7 (7-11'), and SB-8 (0-3') for analysis of VOCs by EPA method 8260C, and total extractable hydrocarbons (TEH) by Iowa Method OA-2. Surface soil samples were also collected from the 0-6" interval from borings SB-1 through SB-6 for total lead analysis by EPA method 6010C. All soil sampling was performed according to Benesch's *Environmental Standard Operating Procedures for Soil Sampling*.

Temporary 1" diameter PVC casing with 10' of screen was set in soil borings SB-3 and SB-6 at a depth of 30' bgs, and in SB-7 at 25' bgs, to observe if groundwater was encountered. Sand was placed in the annular space to a depth of 2' above the screened interval. Groundwater was not encountered in SB-3 or SB-7; however, groundwater was observed in SB-6 at a depth of approximately 22.5' bgs. It is assumed that this is a perched zone of groundwater. Groundwater was sampled from boring SB-6 according to Benesch's *Standard Operating Procedures for Groundwater Well Sampling* and submitted for analysis of VOCs by EPA method 8260C, TEH by Iowa Method OA-2, and for Total RCRA metals plus mercury by EPA method 6010C/7471B. Once sampled, the casing was pulled and the hole was properly abandoned using hydrated bentonite chips.

Based on field screening results and field conditions, soil vapor points were installed in borings SB-3, SB-6, and SB-7 to assess the soil vapor to enclosed space pathway. The vapor points were set at 6' bgs and vapor samples were collected using 1L SUMMA® canisters. Soil vapor samples were collected according to Benesch's *Environmental Standard Operating Procedures for Soil Vapor Sampling* and analyzed for full VOCs by EPA method TO-15. Once the samples were collected, the tubing was removed from the boring and the surface was restored to its original condition. The rationale for vapor sampling locations is to determine the presence of soil impacts from historical site operations and/or historical usage of the neighboring property as an automotive service facility.

All soil and groundwater samples were labeled, packed on ice, and submitted under chain of custody to Test America Laboratories in Cedar Falls, Iowa. The soil vapor samples were submitted under chain of custody to Test America laboratories in Knoxville, Tennessee. The laboratory reports and chain of custody documentation is provided as an attachment to this report.

Findings

The constituents detected in the soil and soil vapor samples are summarized in table 1 together with their respective Nebraska Department of Environmental Quality (NDEQ) Remedial Goals (RGs) for residential and industrial standards.

TABLE 1
Laboratory Detections for Soil, Groundwater, and Soil Vapor Sampling
&
NDEQ VCP Remedial Goals (RGs)

Boring	Media	Constituent	Result	VCP Residential Standard	VCP Industrial Standard
SB-1 (0-6")	Soil	Lead	16.9 mg/kg	400 mg/kg	750 mg/kg
SB-1 (0-3')	Soil	Lead	19.3 mg/kg	400 mg/kg	750 mg/kg
SB-1 (0-3')	Soil	Barium	350 mg/kg	3,800 mg/kg	100,000 mg/kg
SB-1 (0-3')	Soil	Chromium	**19.1 mg/kg**	0.29 mg/kg	55 mg/kg
SB-2 (0-6")	Soil	Lead	26.4 mg/kg	400 mg/kg	750 mg/kg
SB-2 (0-3')	Soil	Lead	19.4 mg/kg	400 mg/kg	750 mg/kg
SB-2 (0-3')	Soil	Barium	276 mg/kg	3,800 mg/kg	100,000 mg/kg
SB-2 (0-3')	Soil	Chromium	**19.2 mg/kg**	0.29 mg/kg	55 mg/kg
SB-3 (0-6")	Soil	Lead	14.2 mg/kg	400 mg/kg	750 mg/kg
SB-3 (0-3')	Soil	Lead	12.3 mg/kg	400 mg/kg	750 mg/kg

TABLE 1 (continued) Laboratory Detections for Soil and Soil Vapor Sampling & NDEQ VCP Remedial Goals (RGs)					
SB-3 (0-3')	Soil	Barium	298 mg/kg	3,800 mg/kg	100,000 mg/kg
SB-3 (0-3')	Soil	Chromium	**19.4 mg/kg**	0.29 mg/kg	55 mg/kg
SB-3 (0-3')	Soil	Arsenic	**6.69 mg/kg**	0.39 mg/kg	16 mg/kg
SB-3 (0-3')	Soil	Mercury	0.0246 mg/kg	3.1 mg/kg	160 mg/kg
SB-6 (0-6")	Soil	Lead	32.5 mg/kg	400 mg/kg	750 mg/kg
SB-6 (0-3')	Soil	Lead	81 mg/kg	400 mg/kg	750 mg/kg
SB-6 (0-3')	Soil	Barium	130 mg/kg	3,800 mg/kg	100,000 mg/kg
SB-6 (0-3')	Soil	Chromium	**23.5 mg/kg**	0.29 mg/kg	55 mg/kg
SB-6 (0-3')	Soil	Arsenic	**5.71 mg/kg**	0.39 mg/kg	16 mg/kg
SB-6 (0-3')	Soil	Mercury	0.0656 mg/kg	3.1 mg/kg	160 mg/kg
SB-6 (11-15')	Soil	TEH as Waste oil	574 mg/kg	*	*
SB-6 (11-15')	Soil	TEH	682 mg/kg	*	*
SB-7 (7-11')	Soil	TEH as Waste oil	776 mg/kg	*	*
SB-7 (7-11')	Soil	TEH	912 mg/kg	*	*
SB-8 (0-3')	Soil	TEH as Waste oil	14 mg/kg	*	*
SB-8 (0-3')	Soil	TEH	16.7 mg/kg	*	*
SB-6	GW	Acetone	10.5 ug/L	5,400 ug/L	
SB-6	GW	Arsenic	0.0407 ug/L	50 ug/L	
SB-6	GW	Barium	1.06 ug/L	2,000 ug/L	
SB-6	GW	Cadmium	0.00287 ug/L	5 ug/L	
SB-6	GW	Chromium	0.0894 ug/L	100 ug/L	
SB-6	GW	Lead	0.183 ug/L	15 ug/L	
SB-6	GW	Mercury	0.000364 ug/L	2 ug/L	
SB-6	GW	TEH	484 µg/m^3	*	
SB-3	Vapor	2-Butanone (MEK)	18 µg/m^3	49,900 µg/m^3	4,260,000 µg/m^3
SB-3	Vapor	Acetone	130 µg/m^3	309,000 µg/m^3	26,400,000 µg/m^3
SB-3	Vapor	Benzene	1.9 µg/m^3	180 µg/m^3	30,300 µg/m^3
SB-3	Vapor	Carbon Disulfide	6.2 µg/m^3	6,980 µg/m^3	596,000 µg/m^3
SB-3	Vapor	Chloroform	4.6 µg/m^3	47.2 µg/m^3	1,040 µg/m^3
SB-3	Vapor	Dichlorodifluoromethane	11 µg/m^3	2,580 µg/m^3	202,000 µg/m^3
SB-3	Vapor	Methylene Chloride	5.9 µg/m^3	2,300 µg/m^3	508,000 µg/m^3
SB-3	Vapor	n-Hexane	7.8 µg/m^3	9,040 g/m^3	70,800 µg/m^3
SB-3	Vapor	Tetrachloroethene	4.0 µg/m^3	5,430 µg/m^3	404,000 µg/m^3
SB-3	Vapor	Toluene	5.0 µg/m^3	49,900 µg/m^3	4,260,000 µg/m^3

TABLE 1 (continued)
Laboratory Detections for Soil and Soil Vapor Sampling
&
NDEQ VCP Remedial Goals (RGs)

SB-3	Vapor	Trichlorofluoromethane	85 µg/m³	6,980 µg/m³	596,000 µg/m³
SB-3	Vapor	Tetrachloroethene	4.7 µg/m³	5,430 µg/m³	404,000 µg/m³
SB-3	Vapor	Trichlorofluoromethane	9.0 µg/m³	6,980 µg/m³	596,000 µg/m³
SB-6	Vapor	2-Butanone (MEK)	28 µg/m³	49,900 µg/m³	4,260,000 µg/m³
SB-6	Vapor	Acetone	230 µg/m³	309,000 µg/m³	26,400,000
SB-6	Vapor	Benzene	2.3 µg/m³	180 µg/m³	30,300 µg/m³
SB-6	Vapor	Carbon Disulfide	6.5 µg/m³	6,980 µg/m³	596,000 µg/m³
SB-6	Vapor	Chloroform	4.2 µg/m³	47.2 µg/m³	1,040 µg/m³
SB-6	Vapor	Dichlorodifluoromethane	6.0 µg/m³	2,580 µg/m³	202,000 µg/m³
SB-6	Vapor	n-Hexane	11 µg/m³	9,040 g/m³	70,800 µg/m³
SB-6	Vapor	Trichlorofluoromethane	7.8 µg/m³	6,980 µg/m³	596,000 µg/m³
SB-7	Vapor	1,2,4-Trimethylbenzene	10 µg/m³	90.4 g/m³	7,080 g/m³
SB-7	Vapor	1,3,5-Trimethylbenzene	4.5 µg/m³	NA	NA
SB-7	Vapor	2,2,4-Trimethylpentane	92 µg/m³	*	*
SB-7	Vapor	2-Butanone (MEK)	74 µg/m³	49,900 µg/m³	4,260,000 µg/m³
SB-7	Vapor	Acetone	260 µg/m³	309,000 µg/m³	26,400,000
SB-7	Vapor	Benzene	53 µg/m³	180 µg/m³	30,300 µg/m³
SB-7	Vapor	Carbon Disulfide	20 µg/m³	6,980 µg/m³	596,000 µg/m³
SB-7	Vapor	Dichlorodifluoromethane	5.8 µg/m³	2,580 µg/m³	202,000 µg/m³
SB-7	Vapor	Ethylbenzene	80 µg/m³	563 µg/m³	113,000 µg/m³
SB-7	Vapor	Methylene Chloride	6.0 µg/m³	2,300 µg/m³	508,000 µg/m³
SB-7	Vapor	Total Xylenes	40 µg/m³	1,290 g/m³	101,000 µg/m³
SB-7	Vapor	n-Hexane	320 µg/m³	9,040 g/m³	70,800 µg/m³
SB-7	Vapor	Toluene	14 µg/m³	64,600 µg/m³	50,60,000 µg/m³

Note: Soil results and standards are in mg/kg and soil vapor results and standards are in µg/m³. *The NDEQ has not established VCP standards for this constituent.
Items in bold denote VCP exceedance.

Only chromium and arsenic in soils was detected at the site above NDEQ VCP residential standards. Chromium was detected at the 0-3' interval in soil borings SB-1, SB-2, SB-3, and SB-6 at 19.1 mg/kg, 19.2 mg/kg, 19.4 mg/kg, and 23.5 mg/kg, respectively. The chromium concentrations exceeded the NDEQ VCP residential standard of 0.29 mg/kg but was below the industrial standard of 55 mg/kg. Concentrations of chromium above the residential RGs at SB-1, SB-2, and SB-3 may be due in part to historic usage of the neighboring property as an auto service facility or the historic usage of the Property as a landfill.

Arsenic was detected at the 0-3' interval in soil boring SB-3 with a concentration of 6.69 mg/kg. The VCP residential standard for arsenic is 0.39 mg/kg, while the industrial standard is 16 mg/kg. The arsenic level observed is considered isolated, and although above the residential RGs, may be typical of background levels in areas of Nebraska which are known to range from 5 to perhaps 50 mg/kg in native soils and fill material.

Total extractable hydrocarbons (TEH) and TEH as waste oil were detected in soil borings SB-6, SB-7, and SB-8. It is likely that the presence of TEH in the soils at the site is a result of the historical use of the Property as a landfill (soils disposal) rather than the historical use of the property to the north as an auto repair facility, based on the depths that the impacts were observed and/or the distance from the neighboring property. Note however that the NDEQ has not established residential or industrial standards for TEH in soils at VCP sites. In addition, the NDEQ standards for RBCA Tier I Site Assessments for petroleum sites in Nebraska do not include look up tables and values for TEH in soils at remedial action class three (RAC-3) sites, where there is no industrial or potable water use in the area.

Project site soils were sampled and analyzed for VOCs (SB-3, SB-6, SB-7, SB-8); however, no detections above laboratory detection limits were observed.

The laboratory reports and chain of custody documentation for soil sampling is provided as an attachment to this report.

Soil Vapor

Several VOC constituents were detected in the soil vapor samples collected from the project site at SB-3, SB-6, and SB-7; however, there were no detections above residential or industrial RGs. In addition, the NDEQ has not established residential or industrial standards for 2,2,4-Trimethylpentane in soil vapor. The laboratory reports and chain of custody documentation for soil vapor sampling are provided as an attachment to this report.

Groundwater Sampling

Acetone, TEH, and several metals were detected in the groundwater sample; however, there were no detections above residential or industrial RGs. It is likely that the presence of TEH in the groundwater at the site is a result of the historical use of the Property as a landfill (soils disposal) rather than the historical use of the property to the north as an auto repair facility, based on the depths that the impacts were observed and/or the distance from the neighboring property. Also note that the NDEQ has not established residential or industrial standards for TEH in groundwater at VCP sites. In addition, the NDEQ standards for RBCA Tier I Site Assessments for petroleum sites in Nebraska do not include look up tables and values for TEH in soils at remedial action class three (RAC-3) sites, where there is no industrial or potable water use in the area. The laboratory reports and chain of custody documentation for the groundwater samples are provided as an attachment to this report.

Quality Assurance/Quality Control

Duplicate samples for soil, soil vapor, and groundwater, in addition to rinsate samples were collected for quality assurance and quality control (QA/QC) purposes and were submitted for the same analysis as the parent samples. These duplicate samples were submitted for analysis to assess the precision of the analysis and the variability of the media. Based on review of the duplicate and rinsate sample data, all data can be relied upon for its intended purpose.

Summary of Laboratory Results for Constituents Exceeding the NDEQ VCP Remedial Goals

Based on laboratory results, the following table provides information for the locations where soil samples exceeded the NDEQ VCP RGs.

TABLE 2
Laboratory Results for Soil Sampling
Sample Locations Exceeding NDEQ VCP Remediation Goals (RGs)

Boring	Media	Constituent	Result	VCP Residential Standard	VCP Industrial Standard
SB-1 (0-3')	Soil	Chromium	19.1 mg/kg	0.29 mg/kg	55 mg/kg
SB-2 (0-3')	Soil	Chromium	19.2 mg/kg	0.29 mg/kg	55 mg/kg
SB-3 (0-3')	Soil	Chromium	19.4 mg/kg	0.29 mg/kg	55 mg/kg
SB-3 (0-3')	Soil	Arsenic	6.69 mg/kg	0.39 mg/kg	16 mg/kg
SB-6 (0-3')	Soil	Arsenic	5.71 mg/kg	0.39 mg/kg	16 mg/kg
SB-6 (0-3')	Soil	Chromium	23.5 mg/kg	0.29 mg/kg	55 mg/kg

Analysis and Recommendations

Concentrations of chromium were observed above the residential RG in four location (SB-1, SB-2, SB-3, and SB-6); however, the industrial RG was not exceeded. Therefore, observed chromium concentrations in project site soils are not a significant concern with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site for industrial use. However, if the future use of the Property were to change to residential, it would be recommended to properly dispose of the impacted soils prior to redevelopment.

Observed levels of arsenic in subsurface soils (6.69 mg/kg in SB-3, 5.71 mg/kg in SB-6) at the project site above residential soil RGs may be typical of background levels in areas of Nebraska. As such, observed arsenic concentrations in project site soils are not a significant concern with respect to property liability and/or constructability concerns of the project site.

Total extractable hydrocarbons (TEH), and TEH as waste oil were detected in soil boring SB-6, SB-7, and SB-8, and TEH was detected in the groundwater in SB-6. Note however that the NDEQ has not established residential or industrial standards for TEH in soils or groundwater at VCP sites. In addition, the NDEQ standards for RBCA Tier I Site Assessments for petroleum sites in Nebraska do not include look up tables and values for TEH in soils at remedial action class three (RAC-3) sites, where there is no industrial or potable water use in the area. In summary, the presence of TEH in soils and groundwater at SB-6, SB-7, and SB-8 are of generally insignificant concentrations, and not a significant concern with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site.

Laboratory concentrations of constituents were minimal and considerably lower than the NDEQ soil vapor VCP RGs for residential and industrial use and are not considered a significant concern with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site.

As a result of the findings of this Phase II ESA, there are no concerns with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project for industrial purposes. However, if the Property is to be used for residential purposes, further assessment and/or special handling of the chromium impacted soils would be recommended. In addition, due to the presence of buried materials and debris at the site, it is recommended that if redevelopment occurs, that the buried materials be excavated from the area of any proposed building footprint, as the existing conditions would likely be unsuitable for support of any structures.

The previous Phase I ESA of the Property revealed that a community garden was established in the area between SB-1 and SB-7. If the community garden were to be continued/retained at the site, it is recommended that the extent of the chromium, arsenic, and TEH impacts within the community garden's footprint be delineated and removed prior to planting, or that aboveground planters be utilized.

It should be noted that the condition of the soils encountered for this assessment may not be representative of the soils across the site. The potential exists that impacted soils, buried tanks or other waste may be encountered during excavation or redevelopment activities, and if encountered should be properly handled in accordance with all local, state and/or federal requirements.

If you have any questions regarding the conduct or conclusions of this assessment, please do not hesitate to contact either of the undersigned at (402) 333-5792.

Respectfully Submitted,

Brian Fettin
Project Scientist II

Chin Lim, P.E.
Project Manager

Attachments:

Figures
Boring Logs
Field Notes
Lab Data

Sources (not provided as an attachment; previously submitted or referenced in report):

ASTM International, *ASTM Standard E1903-11, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.*

Benesch, *Phase I ESA, Dorothy Patach Environmental Site, 4903 S. 20th Street, Omaha, NE*, August 2015.

Benesch, *Phase II Investigation Work Plan for Dorothy Patach Environmental Site, 4903 S. 20th Street*, January 2016.

Benesch, *QAPP Version 0, Brownfields Coalition Assessment Grant, MAPA, SORA, Omaha, NE*, 5/21/12.

Benesch, *QAPP Supplement 7, Brownfields Coalition Assessment Grant, MAPA, SORA, Omaha, NE*, 5/23/2014.

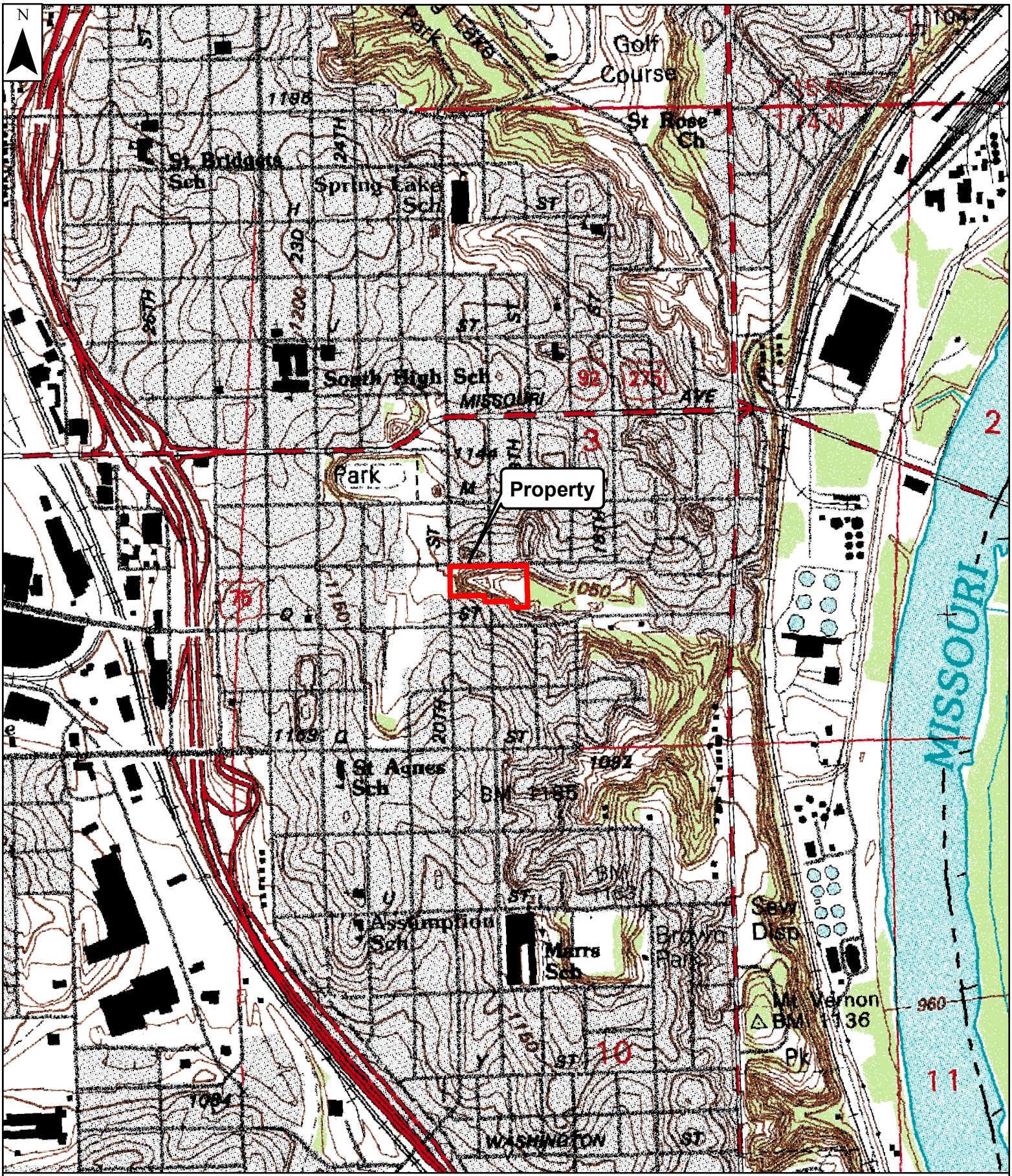
NDEQ, Nebraska Voluntary Cleanup Program, Remediation Goals, residential and industrial values (2012).

Benesch, *Standard Operating Procedures, Soil Sampling*.

Benesch, *Environmental Standard for Soil Vapor Sampling*.

Benesch, *Standard Operating Procedures, Groundwater Sampling*.

FIGURES



USGS Topographic Map

SITE LOCATION MAP - FIGURE 1

MAPA Brownfields South Omaha Redevelopment Area
Dorothy Patach Natural Environmental Area
Phase II ESA
4903 S. 20th Street
T. 14N, R. 13E, S. 3
Omaha, Douglas County, NE

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2014 NAIP Douglas County Aerial Imagery

SITE DIAGRAM MAP - FIGURE 2

MAPA Brownfields South Omaha Redevelopment Area
Dorothy Patach Natural Environmental Area
Phase II ESA
4903 S. 20th Street
T. 14N, R. 13E, S. 3
Omaha, Douglas County, NE

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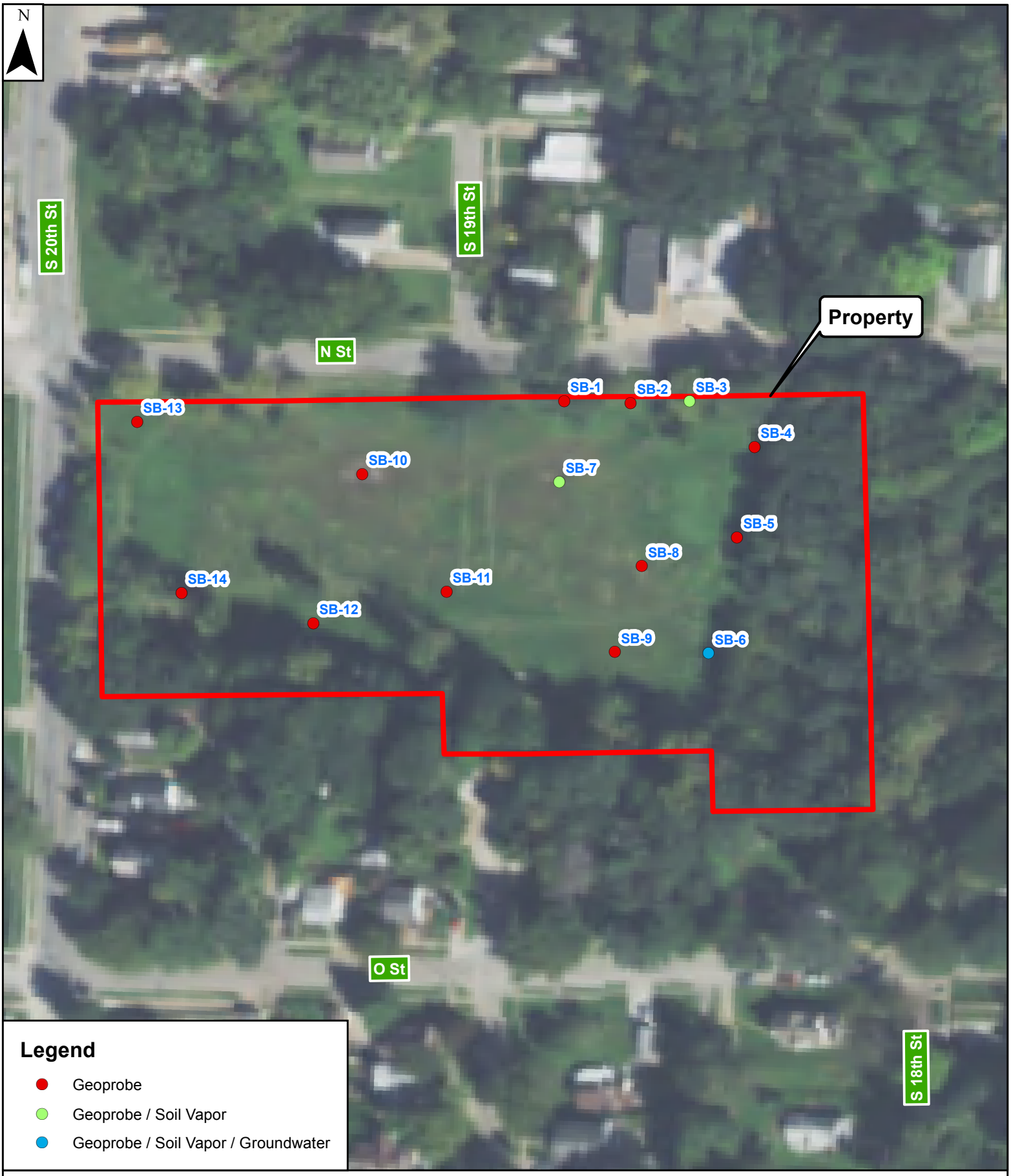

2014 NAIP Douglas County Aerial Imagery

BORING LOCATION DIAGRAM - FIGURE 3

MAPA Brownfields South Omaha Redevelopment Area
Dorothy Patach Natural Environmental Area
Phase II ESA
4903 S. 20th Street
T. 14N, R. 13E, S. 3
Omaha, Douglas County, NE

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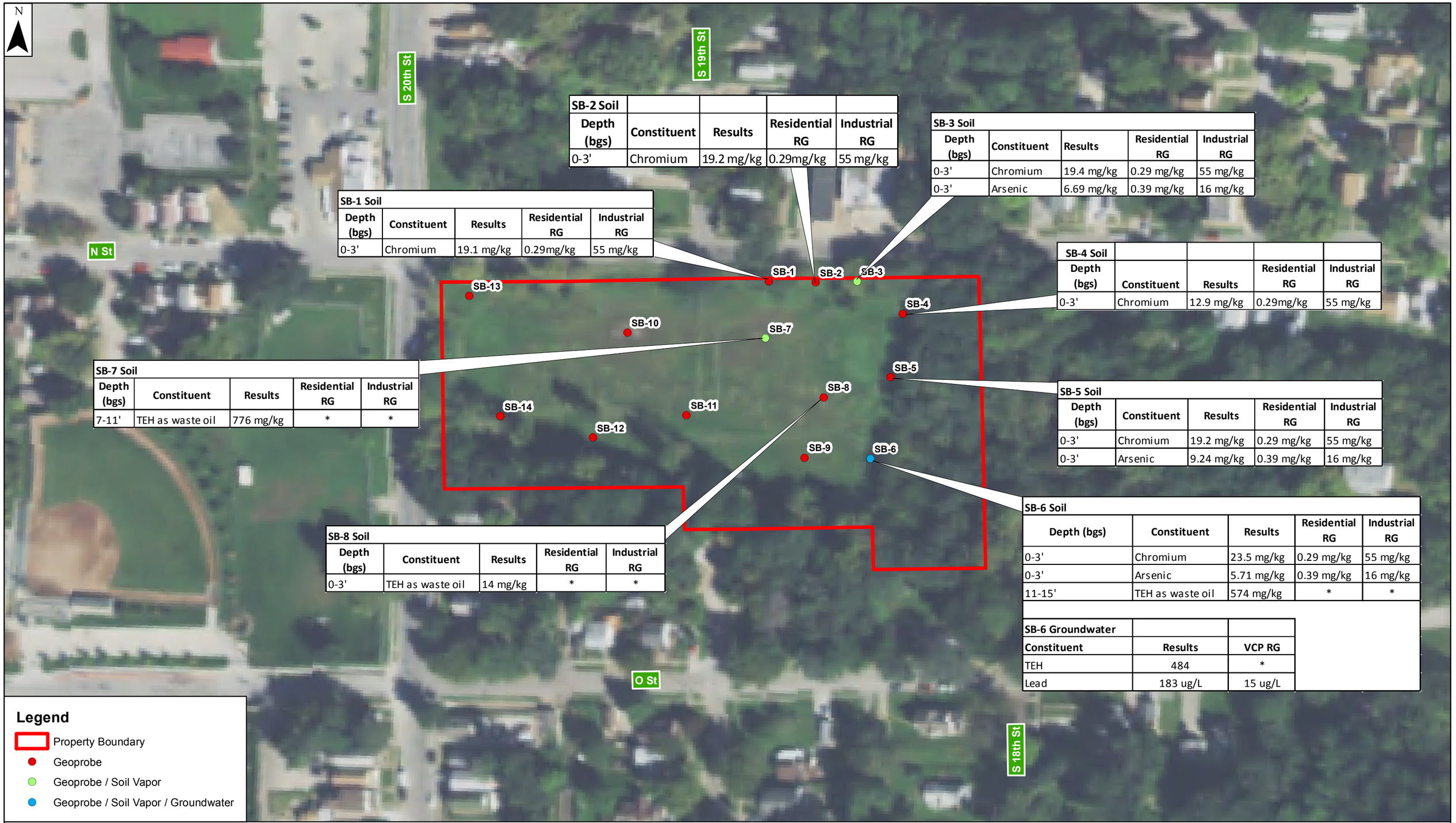

SB-2 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	19.2 mg/kg	0.29mg/kg	55 mg/kg

SB-3 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	19.4 mg/kg	0.29 mg/kg	55 mg/kg
0-3'	Arsenic	6.69 mg/kg	0.39 mg/kg	16 mg/kg

SB-1 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	19.1 mg/kg	0.29mg/kg	55 mg/kg

SB-4 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	12.9 mg/kg	0.29mg/kg	55 mg/kg

SB-7 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
7-11'	TEH as waste oil	776 mg/kg	*	*

SB-5 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	19.2 mg/kg	0.29 mg/kg	55 mg/kg
0-3'	Arsenic	9.24 mg/kg	0.39 mg/kg	16 mg/kg

SB-8 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	TEH as waste oil	14 mg/kg	*	*

SB-6 Soil				
Depth (bgs)	Constituent	Results	Residential RG	Industrial RG
0-3'	Chromium	23.5 mg/kg	0.29 mg/kg	55 mg/kg
0-3'	Arsenic	5.71 mg/kg	0.39 mg/kg	16 mg/kg
11-15'	TEH as waste oil	574 mg/kg	*	*

SB-6 Groundwater		
Constituent	Results	VCP RG
TEH	484	*
Lead	183 ug/L	15 ug/L

Legend

- Property Boundary
- Geoprobe
- Geoprobe / Soil Vapor
- Geoprobe / Soil Vapor / Groundwater

2014 NAIP Douglas County Aerial Imagery

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0 50 100 200 Feet

Path: Y:\Omaha\120100S\00120137.00\Office_Docs\Environmental\00120137.00\Reports\Dorothy Patach Site- 19 and N\Figures\Phase II Exceedance Map Fig 4.mxd

SOIL, SOIL GAS, & GROUNDWATER EXCEEDANCE MAP - FIGURE 4

MAPA Brownfields South Omaha Redevelopment Area
Dorothy Patach Natural Environmental Area
Phase II ESA
4903 S. 20th Street
T. 14N, R. 13E, S. 3
Omaha, Douglas County, NE

BORING LOGS

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-1
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0						0.0
	0.5		CL - LEAN CLAY; dark brown				
			CL - LEAN CLAY; light brown; moist; clayey silt, iron staining and gray mottles. (Fill)		25.2	25% recovery	
							2.5
					15.9		5.0
						25% recovery	
							7.5
					34.2		
	10.0		CL - SILTY CLAY; dark brown; gravel, brick pieces, and cinders; iron staining and black flecks. (Fill)				10.0
					39.2	35% recovery	12.5
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-10
SHEET 1 of 1
DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	DEPTH (feet)
	0.0					0.0
	0.2		CL - LEAN CLAY; brown; silty clay		10.1	
			CL - LEAN CLAY; brown; dry; hard; concrete. (Fill)			2.5
	4.0		CL - SANDY LEAN CLAY; dark brown to black; sandy clay		5.3	5.0
	5.0		CL - LEAN CLAY; green; moist; soft; concrete rubble; slight odor			
	7.0		CL - SANDY LEAN CLAY; dark brown to black; sandy clay; organics		4.3	7.5
	10.0		Dark brown to black; sand, cinders, organics and glass		4.2	10.0
	15.0		Boring Terminated at: 15.0 ft			12.5
						15.0
						17.5
						20.0
						22.5
						25.0
						27.5
						30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-11
SHEET 1 of 1
DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	DEPTH (feet)
	0.0					0.0
	0.2		CL - LEAN CLAY. (Topsoil)			
			CL - LEAN CLAY; brown; sandy gravel. (Fill)		2.5	2.5
	5.0		CL - LEAN CLAY; green; moist; soft; slight odor		2.1	5.0
	7.0		CL - LEAN CLAY; grayish green; medium stiff; concrete rubble and sand		1.7	7.5
	10.0		CL - LEAN CLAY; grayish green; soft; slight odor			10.0
	13.0		CL - LEAN CLAY; greenish gray; soft; 6 inches of concrete rubble		1.5	12.5
	15.0		Boring Terminated at: 15.0 ft			15.0
						17.5
						20.0
						22.5
						25.0
						27.5
						30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-12
SHEET 1 of 1
DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0		CL - LEAN CLAY; brown; moist; soft; sandy and gravelly				0.0
					0.7	25% recovery	
	2.0		CL - LEAN CLAY; brown; iron staining				2.5
					0.7		5.0
	5.0		ML - SILT; light gray; moist; clayey silt; iron mottles			30% recovery	
	7.0		ML - SILT; reddish light brown mottled with gray				7.5
					0.8		
	10.0		ML - SILT; light gray; moist; soft; iron mottles and staining				10.0
					1.3	100% recovery	12.5
	14.0		ML - SILT; light gray; moist to wet				
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-13
SHEET 1 of 1
DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0						0.0
	0.2		CL - LEAN CLAY. (Topsoil)				
			CL - LEAN CLAY; dark brown; gravel, rock, and loose sand		1.2	30% recovery	2.5
	5.0		CL - SANDY LEAN CLAY; sandy and gravelly		2.7	20% recovery	5.0
					2.0		7.5
							10.0
	11.0		CL - LEAN CLAY; reddish brown to dark brown; crushed rock, glass and plastic		2.4	40% recovery	12.5
	14.0		CL - LEAN CLAY; light brown; dry; silty				
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-14
SHEET 1 of 1
DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	DEPTH (feet)
	0.0		CL - LEAN CLAY; dark brown; medium stiff		1.3	0.0
	2.5		CL - LEAN CLAY; dark brown mottled with black and gray; medium stiff; unconsolidated with sand and gravel			2.5
	5.0		CL - LEAN CLAY; wet; sandy clay		5.3	5.0
	7.0		CL - LEAN CLAY; dark brown to red; concrete rubble, gravel and cinders		3.3	7.5
	10.0		CL - LEAN CLAY; moist; concrete rubble			10.0
						12.5
	15.0		Boring Terminated at: 15.0 ft			15.0
						17.5
						20.0
						22.5
						25.0
						27.5
						30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

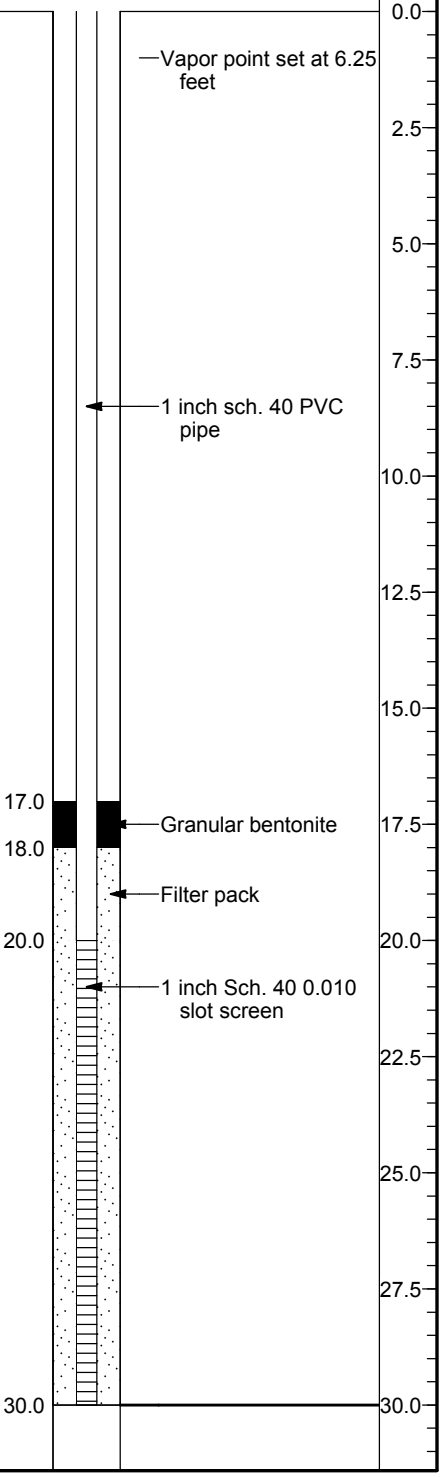
JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-2
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)
	0.0				
	0.2		CL - LEAN CLAY; grass and topsoil		
			CL - LEAN CLAY; dark brown; dry to moist; soft		7.1
	4.0		CL - LEAN CLAY; light brown; moist		15.6
	9.0		CL - LEAN CLAY; light brown; moist; medium stiff		17.9
					32.6
	15.0		CL - LEAN CLAY; brown and dark brown; dry to moist; clayey silt; iron staining and gray mottles		
	25.0		CL - LEAN CLAY; brown		
	28.5		CL - LEAN CLAY; fine sand; dark reddish brown mottled with gray		
	30.0		Boring Terminated at: 30.0 ft		



ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00

RIG / METHOD: Geoprobe / Geoprobe

CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-3

SHEET 1 of 1

DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0						0.0
	0.3		CL - LEAN CLAY; brown to dark brown; silty. (Topsoil)				
			CL - LEAN CLAY; light brown to brown; moist; silty		35.6	25% recovery	
							2.5
	5.0				92.9		5.0
	5.5		CL - LEAN CLAY; dark brown to black; silty clay				
			CL - LEAN CLAY; dark brown to black mottled with gray; medium stiff			25% recovery	
							7.5
					93.4		
	10.0		ML - SILT; reddish brown; dry				10.0
	12.0		ML - SILT; gray mottled with reddish brown			60% recovery	
					33.7		12.5
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-4
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0						0.0
	0.2		CL - LEAN CLAY. (Topsoil)				
			CL - LEAN CLAY; dark brown to black; rock, gravel, and brick. (Fill)		39.4	60% recovery	2.5
					62.5		5.0
	6.0		CL - LEAN CLAY; reddish brown mottled with gray; cinders at 6 feet; wet from 7 feet to 8 feet; iron staining; concrete rubble and gravel. (Fill)			70% recovery	7.5
					56.2		10.0
					32.4	40% recovery	12.5
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-5
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	REMARKS	DEPTH (feet)
	0.0						0.0
	0.2		CL - LEAN CLAY. (Topsoil)				
			CL - LEAN CLAY; dark brown; moist; silty; gravel and brick. (Fill)		80.3	25% recovery	2.5
	5.0		SC - SANDY LEAN CLAY; coarse sand; dark brown; moist; loose		34.2	40% recovery	5.0
					66.3		7.5
	10.0		SC - SANDY LEAN CLAY; moist; brick pieces, cinders and concrete rubble				10.0
					55.2	20% recovery	12.5
	15.0		Boring Terminated at: 15.0 ft				15.0
							17.5
							20.0
							22.5
							25.0
							27.5
							30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

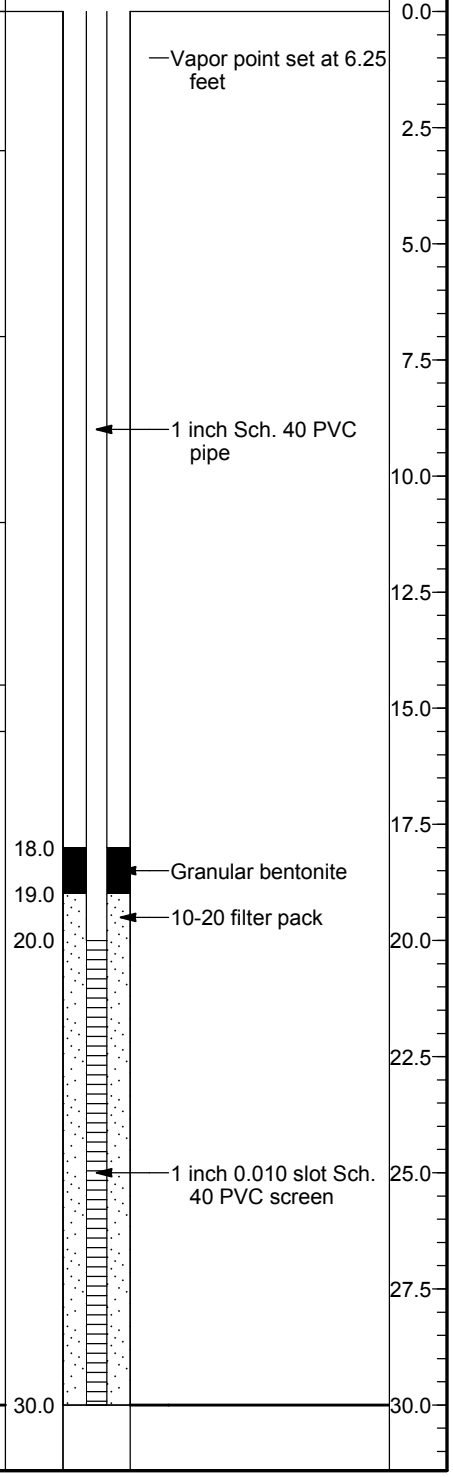
JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-6
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)
	0.0				
	0.2		CL - LEAN CLAY; dark brown; moist		
			CL - LEAN CLAY; dark brown; moist; sandy clay with brick and gravel; cinders and wet at 5.0 feet		43.5
					67.6
					60.8
	11.0		CL - LEAN CLAY; green; moist to wet; gravelly clay fill with brick; slight odor		155
	13.0		CL - LEAN CLAY; with gravel and crushed rock		
	15.0		CL - LEAN CLAY; blackish green; clay, rock and gravel mix; hard; odor		262.0
	20.0		CL - LEAN CLAY; rock, clay, gravel and concrete rubble. (Fill)		
	26.0		CL - LEAN CLAY; greenish black; wet; perched water; black liner paper; concrete from 26.0 to 29.0 feet		
	29.0		CL - LEAN CLAY; hard; sandy clay		
	30.0		Boring Terminated at: 30.0 ft		



ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00

RIG / METHOD: Geoprobe / Geoprobe

CREW: wilkinson & Fettin

BORING LOG

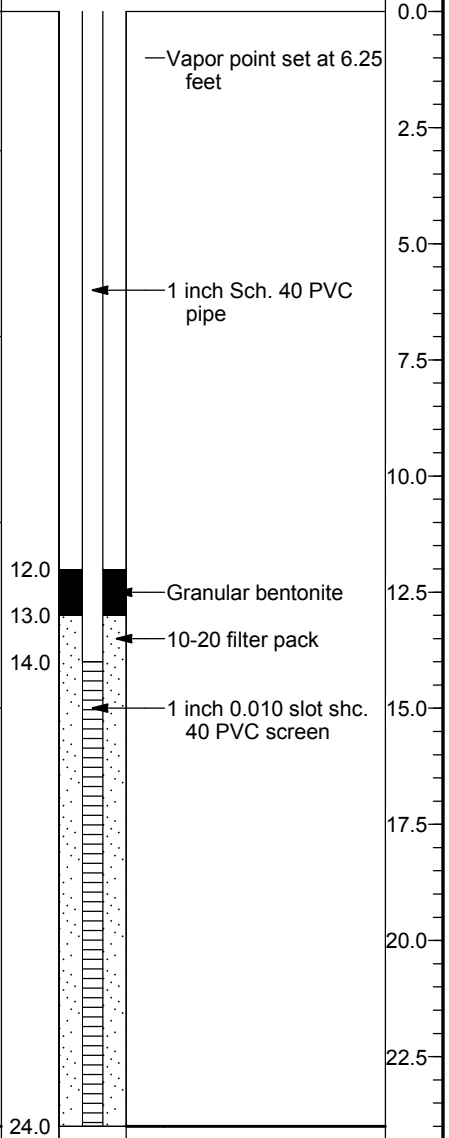
BORING NO.: SB-7

SHEET 1 of 1

DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)
	0.0		CL - LEAN CLAY; dark brown		
	0.3		CL - LEAN CLAY; dark brown; moist		
	0.8		CL - LEAN CLAY; brown; moist; soft; grayish green mottles and iron staining. (Fill)		126.3
	2.0		CL - LEAN CLAY; greenish black; gravel and rubble. (Fill)		
	5.0		CL - LEAN CLAY; black; sandy; cinders with creosote odor. (Fill)		179.8
					234.9
	13.0		CL - LEAN CLAY; brown, green and black; with brick. (Fill)		230.2
	20.0		Concrete and rubble		
	24.0		Boring Terminated at: 24.0 ft		



ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00
RIG / METHOD: Geoprobe / Geoprobe
CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-8
SHEET 1 of 1
DATE: 2-24-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	DEPTH (feet)
	0.0					0.0
	0.2		CL - LEAN CLAY. (Topsoil)			
			CL - LEAN CLAY; brown; moist; unconsolidated with rock and cinders. (Fill)		178.3	2.5
	5.0		CL - SANDY LEAN CLAY; dark brown; wet; sandy clay; concrete and rubble		165.2	5.0
	7.0		CL - SANDY LEAN CLAY; greenish brown; sandy clay			7.5
	8.0		CL - SANDY LEAN CLAY; black to dark gray; sandy and gravelly		122.5	
	10.0		CL - LEAN CLAY; black; clay and cinders			10.0
	13.0		CL - LEAN CLAY; dark green to black; 2 inches of concrete rubble		154.2	12.5
	15.0		Boring Terminated at: 15.0 ft			15.0
						17.5
						20.0
						22.5
						25.0
						27.5
						30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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PROJECT: MAPA Dorothy Patach

LOCATION: Omaha, Nebraska

JOB NO.: 00120137.00

RIG / METHOD: Geoprobe / Geoprobe

CREW: wilkinson & Fettin

BORING LOG

BORING NO.: SB-9

SHEET 1 of 1

DATE: 2-25-2016

WATER LEVELS

ELEV (Project)	DEPTH (feet)	LOG	LITHOLOGY DESCRIPTION	SAMPLE	PID (ppm)	DEPTH (feet)
	0.0					0.0
	0.2		CL - LEAN CLAY. (Topsoil)			
			CL - LEAN CLAY; brown. (Fill)		2.7	
	2.5		SM - POORLY GRADED SAND; dark brown to black with green; clay lenses at 3.0 feet			2.5
	5.0		SM - POORLY GRADED SAND; black; wet; cinders		2.6	5.0
	6.0		SM - POORLY GRADED SAND; grayish brown; gravelly clay, rubble, organics, and wood pieces			7.5
					1.2	
	10.0		SM - POORLY GRADED SAND; wet; same as above except 6 inches of perched water at 11.0 feet; 6 inches of concrete at 12 feet			10.0
	12.5		CL - LEAN CLAY; dark brown; clay with organic matter		1.2	12.5
	15.0		Boring Terminated at: 15.0 ft			15.0
						17.5
						20.0
						22.5
						25.0
						27.5
						30.0

ENVR WELL LOG MAPA PATACH.GPJ HWS MAR06.GDT 3/23/16

Figure

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FIELD NOTES

2-24-16 DOROTHY PATACH BOOK: 963
RON PROCHASKA (CLOUDY, 35°F) PAGE: 57

0905 HRS. ARRIVE ON SITE. TOM OF SABRE PROBE (SB) ON SITE. UTILITIES HAVE BEEN MARKED.

0915 HRS. JOHN OF SB ARRIVES ON SITE W/ EQUIPMENT. THEY PREPARE TO START PROBES.

0925 HRS. CALIBRATE PID (MINIRAE LITE)

0935 HRS. START PROBE AT SB-2. DOWN TO 10' AND HAVE NO RECOVERY. WILL MOVE OVER AND TRY ANOTHER SPOT CLOSE.

0945 HRS. START ANOTHER SB-2. STILL NOT MUCH RECOVERY.

1000 HRS. COLLECT SAMPLE √0-6" FOR LEAD AND 0'-3' FOR METALS.

1007 HRS. SAMPLE FOR PID @ 3-7' BAGGED

1015 HRS. PID OF SB-2 0-3' = 7.1 ppm.

1018 HRS. SAMPLE FOR PID @ 8-11 BAGGED.

1020 HRS. SAMPLE FOR PID @ 11-15 BAGGED.
PID OF SB-2 3-7 = 15.6 ppm.
BRIAN FETTIN IS NOW ON SITE.

1032 HRS. PID OF 7-10' = 17.9
PID OF 10-15' = 32.6 ppm. (SAMPLE VOCs/DAY)

1045 HRS. SB-2 PUSHED DOWN TO 30' FOR WATER. NOT CERTAIN IF WATER OR NOT.

1050 HRS PROBES ARE PULLED AND PVC SCREEN & CASING IS SET.

1110 HRS. START PROBE @ SB-1. NOTE THAT WE SWITCHED NUMBERS FROM SB-1 & SB-3 AS SHOWN ON MAP IN SAP.

1115 HRS. COLLECT SAMPLE FOR √LEAD & RCRA METALS FROM SB-1 (0-6") & SB-1 (0-3') SAMPLE BAGGED FOR PID.

2-24-16 DOROTHY PATACH BOOK: 963
PAGE: 58
RON PROCHASKA. (SUNNY - 48°F)

1124 HRS. SAMPLE BAGGED FOR PID @ SB-1 (~~3~~-7').
1130 HRS. SAMPLE BAGGED FOR PID @ SB-1 (7-11) & SB-1 (11-15). NOT MUCH RECOVERY AGAIN.
* PID OF SB-1 (0-3') = 25.2 ppm.
1135 HRS. PID OF SB-1 (3-7') = 15.9 ppm.
1140 HRS. PID OF SB-1 (7-11) = 34.2 ppm.
PID OF SB-1 (11-15) = 39.2 ppm. (VOCs & OA-2)

1142 HRS. START PROBE @ SB-3.
1146 HRS. SAMPLE FOR LEAD & METALS COLLECTED @ SB-~~3~~ 0-3. SAMPLE BAGGED FOR PID.
1153 HRS. SAMPLE FOR PID @ SB-(3-7) IS BAGGED FOR PID.
1200 HRS. PID OF SB-~~3~~ (0-3) = 35.6 ppm.
1203 HRS. PID OF SB-~~3~~ (3-7) = 97.9 ppm.
1208 HRS. PID OF SB-3 (7-11) = 93.4 SB-3 (11-15) = 33.7
SAMPLE FOR VOCs & OA-2 @ SB-3 (7-11)
DUPLICATE FOR VOCs & OA 2 @ SB-3 (7-11).

1210 HRS. START PROBE @ SB-4.
1215 HRS. SAMPLE FOR LEAD & METALS @ SB-4 (0-3)
SAMPLE FOR PID BAGGED

1220 HRS. SAMPLE BAGGED FOR PID @ SB-4 (~~3~~-7')
1225 HRS. SAMPLES BAGGED FOR PID @ SB-4 (3-7 & (7-11).
1235 HRS. PID READINGS = SB-4 (0-3) = 39.4
SB-4 (~~3~~-7') = ~~SB-2~~ 62.5
SB-4 (7-11) = 56.2
SB-4 (11-15) = 32.4
SAMPLE FOR VOCs & OA 2 @ SB-4 (3-7')
1245 HRS. DEPART SITE FOR LUNCH.
1355 HRS. RETURN TO SITE.
1405 HRS. START PROBE @ SB-5.
1411 HRS. SAMPLE FOR LEAD & METALS @ SB-5 (0-3')
SAMPLE BAGGED FOR PID. SB-5 (0-3)
1415 HRS. SAMPLE BAGGED FOR PID SB-5 (3-7)

2-24-16 DOROTHY PATACA BOOK: 963
RON PROCHASKA (PARTLY CLOUDY, 40°F) PAGE: 59

1420 HRS. SAMPLE BAGGED FOR PID - SB-5 (7-11)
1423 HRS. SAMPLE BAGGED FOR PID - SB-5 (11-15)
1430 HRS. PID FOR SB-5 (0-3') = 80.3
1434 HRS. PID FOR SB-5 (3-7) = 34.2
PID FOR SB-5 (7-11) = 66.3
PID FOR SB-5 (11-15) = 55.2

1438 HRS. START @ SB-6. ALSO METALS DUP
1440 HRS. SAMPLE FOR METALS & LEAD @ SB-6 (0-3)
SAMPLE BAGGED FOR PID - SB-6 (0-3)
1443 HRS. SAMPLE BAGGED FOR PID @ SB-6 (3-7)
1446 HRS. SAMPLE BAGGED FOR PID @ SB-6 (7-11)
1450 HRS. PID OF SB-6 (0-3') = 43.5 ppm
1455 HRS PID OF SB-6 (3-7') = 67.6 ppm
1457 HRS. PID OF SB-6 (7-11) = 60.8 ppm. POSSIBLE VOC/OA-2
1459 HRS. PID OF SB-6 (11-15) ~~135 ppm~~ 155 ppm

1500 HRS. GOING DOWN TO 30' @ THIS POINT. GEOPROBE UNIT IS BROKEN DOWN AT THIS TIME. SABRA-PROBE TRYING TO FIX.
1510 HRS. BACK UP AND RUNNING.
1530 HRS. SB-6 DOWN TO 30'. SETTING PVC WELL SCREEN & CASING. DID PID OF SOIL SAMPLE FROM 16'-17' = 262.3 ppm.
1540 HRS. DID PID OF SOIL FROM SB-6 27' DOWN = 165.
STARTING @ SB-7.
1545 HRS. BAG SAMPLE FOR PID @ SB-7 (0-3')
1549 HRS. BAG SAMPLE FOR PID @ SB-7 (3-7)
1552 HRS BAG SAMPLE FOR PID @ SB-7 (7-11)
1556 HRS. PID OF SB-7 (0-3) = 126.3
1559 HRS. PID OF SB-7 (3-7) = 179.8
1602 HRS. BAG SAMPLE FOR PID @ SB-7 (11-15)
PID OF SB-7 (7-11) = 234.9 (POSSIBLE VOC/OA-2
~~1611 HRS.~~
1611 HRS. PID OF SB-7 (11-15) = 230.2
1620 HRS. HAD REFUSAL @ SB-7 @ 25'±. WILL SET POINT FOR WATER AT THIS POINT.
1625 HRS WELL POINT SET. CREW MOVING AND STARTING @ SB-8.

2-24-16 DOROTHY PATACH BOOK: 963
PAGE: 60

RON PROCHASKA (SUNNY 40°F)

1629 HRS. SAMPLE BAGGED FOR PID @ SB-8 (0-3')
1642 HRS SAMPLE FOR PID @ SB-8(0-3') = 178.3 V
1643 HRS. BAG SAMPLE FOR SB-8 (3-7') FOR PID.
1650 HRS. BAG SAMPLE FOR SB-8 (7-11) FOR PID.
1654 HRS. BAG SAMPLE FOR SB-8 (11-15) FOR PID.
1655 HRS. PID OF SB-8 (3-7') = 165.2 PPM
1700 HRS. PID OF SB-8 (7-11) = 122.5 PPM
1705 HRS. PID OF SB-8 (11-15) = 154.2 PPM
1715 HRS. DEPART SITE FOR THE DAY. SAMPLES ARE IN COOLER ON ICE.

2-25-16 DOROTHY PATACH BOOK: 963
RON PROCHASKA (CLOUDY - 33 °F) PAGE: 61

0755 HRS. ARRWE ON SITE. JOHN OF SABRE-PROBE IS ON SITE. CHECK SB-2 FOR WATER - NO WATER (30' DTB).

0815 HRS. CALIBRATE PID (MINIRAE-LITE)

0830 HRS. TOM OF SB IS ON SITE.

0840 HRS. BRIAN FETTIN ON SITE.

0850 HRS. START PROBE @ SB-9.

0855 HRS. SAMPLE BAGGED FOR PID @ SB- (0-3).

0902 HRS. SAMPLE BAGGED FOR PID @ SB (3-7)

0905 HRS. CHECKED SB-6 FOR WATER. DTW - 23.50 / DTB - 31.0' FROM TOP OF CASING (CASING IS 1'± ABOVE G.S.)

0912 HRS. PID OF SB-9 (0-3) = 2.7 ppm.

0914 HRS. PID OF SB-9 (3-7) = 2.6 ppm.

0918 HRS. BAG SAMPLE FOR PID @ SB-9 (7-11)

0921 HRS. BAG SAMPLE FOR PID @ SB-9 (11-15).

0930 HRS. PID OF SB-9 (7-11) = 1.2 SB-9 (11-15) = 1.2

0935 HRS. START PROBE @ SB-10

0937 HRS. BAG SAMPLE FOR PID @ SB-10 (0-3)

0940 HRS. BAG SAMPLE FOR PID @ SB-10 (3-7)

0945 HRS BAG SAMPLE FOR PID @ SB-10 (7-11) & 11-15)

0948 HRS. PID OF SB-10 (0-3) = 10.1

0950 HRS. PID OF SB-10 (3-7) = 5.0

0956 HRS. PID OF SB-10 (7-11) = 4.3 SB-10 (11-15) = 4.2

0956 HRS. STARTED PROBE @ SB-11.

0959 HRS. SAMPLE BAGGED FOR SB-11 (0-3)

1003 HRS SAMPLE BAGGED FOR SB-11 (3-7)

1007 HRS. SAMPLE BAGGED FOR SB-11 (7-11) & SB-11 (11-15)

1015 HRS. EQUIPMENT RINSATE DONE OF BOOT FROM PROBE.

1023 HRS. PID OF : SB-11 (0-3) = 2.5 SB-11 (3-7) = 2.1
SB-11 (7-11) = 1.7 SB-11 (11-15) = 1.5

2-25-16 DOROTHY PATACH BOOK: 963
RON PROCHASKA (CLOUDY, 36°F) PAGE: 62

1025 HRS. START PROBE @ SB-12.
1027 HRS. SAMPLE BAGGED FOR SB-12 (0-3)
1030 HRS. SAMPLE BAGGED FOR SB-12 (3-7)
1035 HRS. SAMPLE BAGGED FOR SB-12 (7-11) & (11-15).
1038 HRS. PID OF SB-12 (0-3) = 0.7
1040 HRS. PID OF SB-12 (3-7) = 0.7
1046 HRS. PID OF SB12 (7-11) = 0.8, SB-12 (11-15) = 1.3
PROBE STARTED @ SB-14
1048 HRS. SAMPLE BAGGED FOR PID @ SB-14 (0-3)
1051 HRS. SAMPLE BAGGED FOR PID @ SB-14 (3-7)
1053 HRS. SAMPLE BAGGED FOR PID @ SB-14 (7-11)
NO SAMPLE FOR 11-15' (CONCRETE CRUSHED)
1101 HRS. PID OF SB-14 (0-3) = 1.3
1103 HRS. PID OF SB-14 (3-7) = 5.3
1104 HRS. PID OF SB-14 (7-11) = 3.3
1106 HRS. START PROBE @ SB-13.
1110 HRS. BAG SAMPLE FOR PID @ SB-13 (0-3)
1113 HRS. BAG SAMPLE FOR PID @ SB-13 (3-7)
1118 HRS. BAG SAMPLE FOR PID @ SB-13 (7-11)
1120 HRS. PID OF SB-13 (0-3) = 1.2
1123 HRS. PID OF SB-13 (3-7) = 2.7
1128 HRS. PID OF SB-13 (7-11) = 2.0, (11-15) = 2.4
1200 HRS. DEPART SITE FOR LUNCH.
1250 HRS. RETURN TO SITE. CHECKED FOR WATER IN SB-7. DRY- NO WATER. ~~SB~~ SABER-PROBE WILL SET THE 3 VAPOR POINTS.
POINTS WILL BE SET @ SB-3, SB-6, & SB-7.
1400 HRS. 3 VAPOR PROBES ARE SET. BRIAN AND I ABANDON SOME OF THE PROBE POINTS. TAKING ALMOST A FULL BAG TO FILL HOLES. MUST BE VOIDS DUE TO FORMER OLD LANDFILL. SABERPROBE WILL BRING MORE BENTINITE HOLE PLUG OUT TOMORROW.
1450 HRS. DEPART SITE. ALL PARTYS ARE GONE.

2-26-16 DOROTHY PATACH BOOK: 963
RON PROCHASKA (SUNNY 50°F) PAGE: 63

1300 HRS. ARRIVE ON SITE. PREPARE EQUIP. TO COLLECT VAPOR SAMPLES.

1310 HRS. BRIAN FETTIN ARRIVES ON SITE.

1320 HRS. COLLECT VAPOR SAMPLE @ SB-3. ALSO COLLECT DUPLICATE @ SB-3.
CAN # 10759, START = 28.5 / END = 2.0"
CAN # 09668, START = 28.5 / END = 2.0"

1340 HRS. COLLECT VAPOR SAMPLE @ SB-7.
CAN # 09633, START = 28.5" / END = 2.0"

1350 HRS. COLLECT VAPOR SAMPLE @ SB-6.
CAN # 09830, START = 28.0 / END = 2.0"

1355 HRS. DTW @ SB-6 IS 25.50, DTB = 30.03
FROM TOP OF CASING THAT IS APPROX.
1 FOOT ABOVE GROUND SURFACE.

1400 HRS. COLLECT WATER SAMPLE FROM SB-6 W/ BAILER. ALSO COLLECT FIELD DUP AT THIS WELL.

1430 HRS. WELL POINTS @ SB-~~8~~ 2 AND SB-7 ARE DRY. PULLED ALL PVC CASING AND SCREENS. SABER PROBE DROPPED OFF ONLY TWO BAGS OF HOLE PLUG THAT WERE PARTLY HYDRATED ALREADY. WE FILLED AS MANY POINTS AS WE COULD, BUT RAN OUT AGAIN. STILL 3 HOLES LEFT TO FILL.

1500 HRS. BRIAN & I DEPART SITE.

LABORATORY DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
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Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: 140-4540-1
Client Project/Site: Dorothy Patch

For:
Alfred Benesch & Company
14748 West Center Road
Suite 200
Omaha, Nebraska 68144

Attn: Brian Fettin

Ryan Henry

Authorized for release by:
3/10/2016 10:43:25 AM

Ryan Henry, Project Manager I
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Table of Contents

Definitions/Glossary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Job ID: 140-4540-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative
140-4540-1

Comments
No additional comments.

Receipt
The samples were received on 3/2/2016 at 12:40pm and arrived in good condition.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

No additional analytical or quality issues were noted.

Detection Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3 — Lab Sample ID: 140-4540-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	6.0	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	55		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.59	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.0	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Chloroform	0.94	J	2.0	0.38	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	2.2	J	5.0	0.32	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.59	J	2.0	0.40	ppb v/v	1		TO-15	Total/NA
Toluene	1.3	J	2.0	1.2	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	15		2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	18	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	130		120	33	ug/m3	1		TO-15	Total/NA
Benzene	1.9	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.2	J	16	0.97	ug/m3	1		TO-15	Total/NA
Chloroform	4.6	J	9.8	1.9	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	11		9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	5.9	J B	17	4.5	ug/m3	1		TO-15	Total/NA
n-Hexane	7.8	J	18	1.1	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	4.0	J	14	2.7	ug/m3	1		TO-15	Total/NA
Toluene	5.0	J	7.5	4.5	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	85		11	1.3	ug/m3	1		TO-15	Total/NA

Client Sample ID: SB-6 — Lab Sample ID: 140-4540-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	9.7	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	99		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.72	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.1	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.85	J	2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	21		5.0	0.32	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	1.7	J	2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	28	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	230		120	33	ug/m3	1		TO-15	Total/NA
Benzene	2.3	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.5	J	16	0.97	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	4.2	J	9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	6.0	J B	17	4.5	ug/m3	1		TO-15	Total/NA
n-Hexane	73		18	1.1	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	9.5	J	11	1.3	ug/m3	1		TO-15	Total/NA

Client Sample ID: SB-7 — Lab Sample ID: 140-4540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.1		2.0	0.63	ppb v/v	3.47		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.91	J	2.0	0.65	ppb v/v	3.47		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample ID: SB-7 (Continued) — Lab Sample ID: 140-4540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,2,4-Trimethylpentane	20		5.0	0.39	ppb v/v	3.47		TO-15	Total/NA
2-Butanone (MEK)	25		10	2.0	ppb v/v	3.47		TO-15	Total/NA
Acetone	110		50	14	ppb v/v	3.47		TO-15	Total/NA
Benzene	17		2.0	0.56	ppb v/v	3.47		TO-15	Total/NA
Carbon disulfide	6.3		5.0	0.31	ppb v/v	3.47		TO-15	Total/NA
Dichlorodifluoromethane	1.2	J	2.0	0.68	ppb v/v	3.47		TO-15	Total/NA
Ethylbenzene	18		2.0	0.68	ppb v/v	3.47		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	3.47		TO-15	Total/NA
m-Xylene & p-Xylene	6.0		2.0	1.2	ppb v/v	3.47		TO-15	Total/NA
n-Hexane	90		5.0	0.32	ppb v/v	3.47		TO-15	Total/NA
o-Xylene	3.3		2.0	0.61	ppb v/v	3.47		TO-15	Total/NA
Toluene	13		2.0	1.2	ppb v/v	3.47		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	10		9.8	3.1	ug/m3	3.47		TO-15	Total/NA
1,3,5-Trimethylbenzene	4.5	J	9.8	3.2	ug/m3	3.47		TO-15	Total/NA
2,2,4-Trimethylpentane	92		23	1.8	ug/m3	3.47		TO-15	Total/NA
2-Butanone (MEK)	74		29	5.9	ug/m3	3.47		TO-15	Total/NA
Acetone	260		120	33	ug/m3	3.47		TO-15	Total/NA
Benzene	53		6.4	1.8	ug/m3	3.47		TO-15	Total/NA
Carbon disulfide	20		16	0.97	ug/m3	3.47		TO-15	Total/NA
Dichlorodifluoromethane	5.8	J	9.9	3.4	ug/m3	3.47		TO-15	Total/NA
Ethylbenzene	80		8.7	3.0	ug/m3	3.47		TO-15	Total/NA
Methylene Chloride	6.0	J B	17	4.5	ug/m3	3.47		TO-15	Total/NA
m-Xylene & p-Xylene	26		8.7	5.2	ug/m3	3.47		TO-15	Total/NA
n-Hexane	320		18	1.1	ug/m3	3.47		TO-15	Total/NA
o-Xylene	14		8.7	2.6	ug/m3	3.47		TO-15	Total/NA
Toluene	49		7.5	4.5	ug/m3	3.47		TO-15	Total/NA

Client Sample ID: FIELD DUPLICATE — Lab Sample ID: 140-4540-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	7.0	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	63		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.60	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.0	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Chloroform	0.97	J	2.0	0.38	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.8	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	1.9	J	5.0	0.32	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.56	J	2.0	0.40	ppb v/v	1		TO-15	Total/NA
Toluene	1.2	J	2.0	1.2	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	16		2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	21	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	150		120	33	ug/m3	1		TO-15	Total/NA
Benzene	1.9	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.3	J	16	0.97	ug/m3	1		TO-15	Total/NA
Chloroform	4.7	J	9.8	1.9	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	12		9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	6.1	J B	17	4.5	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: FIELD DUPLICATE (Continued) — Lab Sample ID: 140-4540-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	6.7	J	18	1.1	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	3.8	J	14	2.7	ug/m3	1		TO-15	Total/NA
Toluene	4.6	J	7.5	4.5	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	90		11	1.3	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 16:53	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 16:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 16:53	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 16:53	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 16:53	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 16:53	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 16:53	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 16:53	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 16:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 16:53	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 16:53	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 16:53	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 16:53	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 16:53	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 16:53	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 16:53	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 16:53	1
2-Butanone (MEK)	**6.0**	**J**	10	2.0	ppb v/v			03/03/16 16:53	1
Acetone	**55**		50	14	ppb v/v			03/03/16 16:53	1
Benzene	**0.59**	**J**	2.0	0.56	ppb v/v			03/03/16 16:53	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 16:53	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 16:53	1
Carbon disulfide	**2.0**	**J**	5.0	0.31	ppb v/v			03/03/16 16:53	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 16:53	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 16:53	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 16:53	1
Chloroform	**0.94**	**J**	2.0	0.38	ppb v/v			03/03/16 16:53	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 16:53	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 16:53	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 16:53	1
Dichlorodifluoromethane	**2.2**		2.0	0.68	ppb v/v			03/03/16 16:53	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 16:53	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 16:53	1
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/03/16 16:53	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 16:53	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 16:53	1
n-Hexane	**2.2**	**J**	5.0	0.32	ppb v/v			03/03/16 16:53	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 16:53	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 16:53	1
Tetrachloroethene	**0.59**	**J**	2.0	0.40	ppb v/v			03/03/16 16:53	1
Toluene	**1.3**	**J**	2.0	1.2	ppb v/v			03/03/16 16:53	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 16:53	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 16:53	1
Trichlorofluoromethane	**15**		2.0	0.24	ppb v/v			03/03/16 16:53	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 16:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 16:53	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 16:53	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 16:53	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 16:53	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 16:53	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 16:53	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 16:53	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 16:53	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 16:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 16:53	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 16:53	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 16:53	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 16:53	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 16:53	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 16:53	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 16:53	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 16:53	1
2-Butanone (MEK)	**18**	**J**	29	5.9	ug/m3			03/03/16 16:53	1
Acetone	**130**		120	33	ug/m3			03/03/16 16:53	1
Benzene	**1.9**	**J**	6.4	1.8	ug/m3			03/03/16 16:53	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 16:53	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 16:53	1
Carbon disulfide	**6.2**	**J**	16	0.97	ug/m3			03/03/16 16:53	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 16:53	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 16:53	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 16:53	1
Chloroform	**4.6**	**J**	9.8	1.9	ug/m3			03/03/16 16:53	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 16:53	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 16:53	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 16:53	1
Dichlorodifluoromethane	**11**		9.9	3.4	ug/m3			03/03/16 16:53	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 16:53	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 16:53	1
Methylene Chloride	**5.9**	**J B**	17	4.5	ug/m3			03/03/16 16:53	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 16:53	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 16:53	1
n-Hexane	**7.8**	**J**	18	1.1	ug/m3			03/03/16 16:53	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 16:53	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 16:53	1
Tetrachloroethene	**4.0**	**J**	14	2.7	ug/m3			03/03/16 16:53	1
Toluene	**5.0**	**J**	7.5	4.5	ug/m3			03/03/16 16:53	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 16:53	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 16:53	1
Trichlorofluoromethane	**85**		11	1.3	ug/m3			03/03/16 16:53	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*03/03/16 16:53*	*1*

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 17:35	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 17:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 17:35	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 17:35	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 17:35	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 17:35	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 17:35	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 17:35	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 17:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 17:35	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 17:35	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 17:35	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 17:35	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 17:35	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 17:35	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 17:35	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 17:35	1
2-Butanone (MEK)	**9.7**	**J**	10	2.0	ppb v/v			03/03/16 17:35	1
Acetone	**99**		50	14	ppb v/v			03/03/16 17:35	1
Benzene	**0.72**	**J**	2.0	0.56	ppb v/v			03/03/16 17:35	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 17:35	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 17:35	1
Carbon disulfide	**2.1**	**J**	5.0	0.31	ppb v/v			03/03/16 17:35	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 17:35	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 17:35	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 17:35	1
Chloroform	ND		2.0	0.38	ppb v/v			03/03/16 17:35	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 17:35	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 17:35	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 17:35	1
Dichlorodifluoromethane	**0.85**	**J**	2.0	0.68	ppb v/v			03/03/16 17:35	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 17:35	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 17:35	1
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/03/16 17:35	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 17:35	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 17:35	1
n-Hexane	**21**		5.0	0.32	ppb v/v			03/03/16 17:35	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 17:35	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 17:35	1
Tetrachloroethene	ND		2.0	0.40	ppb v/v			03/03/16 17:35	1
Toluene	ND		2.0	1.2	ppb v/v			03/03/16 17:35	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 17:35	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 17:35	1
Trichlorofluoromethane	**1.7**	**J**	2.0	0.24	ppb v/v			03/03/16 17:35	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 17:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 17:35	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 17:35	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 17:35	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 17:35	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 17:35	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 17:35	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 17:35	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 17:35	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 17:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 17:35	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 17:35	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 17:35	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 17:35	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 17:35	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 17:35	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 17:35	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 17:35	1
2-Butanone (MEK)	**28**	**J**	29	5.9	ug/m3			03/03/16 17:35	1
Acetone	**230**		120	33	ug/m3			03/03/16 17:35	1
Benzene	**2.3**	**J**	6.4	1.8	ug/m3			03/03/16 17:35	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 17:35	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 17:35	1
Carbon disulfide	**6.5**	**J**	16	0.97	ug/m3			03/03/16 17:35	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 17:35	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 17:35	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 17:35	1
Chloroform	ND		9.8	1.9	ug/m3			03/03/16 17:35	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 17:35	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 17:35	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 17:35	1
Dichlorodifluoromethane	**4.2**	**J**	9.9	3.4	ug/m3			03/03/16 17:35	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 17:35	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 17:35	1
Methylene Chloride	**6.0**	**J B**	17	4.5	ug/m3			03/03/16 17:35	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 17:35	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 17:35	1
n-Hexane	**73**		18	1.1	ug/m3			03/03/16 17:35	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 17:35	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 17:35	1
Tetrachloroethene	ND		14	2.7	ug/m3			03/03/16 17:35	1
Toluene	ND		7.5	4.5	ug/m3			03/03/16 17:35	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 17:35	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 17:35	1
Trichlorofluoromethane	**9.5**	**J**	11	1.3	ug/m3			03/03/16 17:35	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*03/03/16 17:35*	*1*

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/04/16 15:10	3.47
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/04/16 15:10	3.47
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/04/16 15:10	3.47
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/04/16 15:10	3.47
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/04/16 15:10	3.47
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/04/16 15:10	3.47
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/04/16 15:10	3.47
1,2,4-Trimethylbenzene	**2.1**		2.0	0.63	ppb v/v			03/04/16 15:10	3.47
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/04/16 15:10	3.47
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/04/16 15:10	3.47
1,3,5-Trimethylbenzene	**0.91**	**J**	2.0	0.65	ppb v/v			03/04/16 15:10	3.47
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/04/16 15:10	3.47
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/04/16 15:10	3.47
2,2,4-Trimethylpentane	**20**		5.0	0.39	ppb v/v			03/04/16 15:10	3.47
2-Butanone (MEK)	**25**		10	2.0	ppb v/v			03/04/16 15:10	3.47
Acetone	**110**		50	14	ppb v/v			03/04/16 15:10	3.47
Benzene	**17**		2.0	0.56	ppb v/v			03/04/16 15:10	3.47
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/04/16 15:10	3.47
Bromomethane	ND		2.0	0.32	ppb v/v			03/04/16 15:10	3.47
Carbon disulfide	**6.3**		5.0	0.31	ppb v/v			03/04/16 15:10	3.47
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/04/16 15:10	3.47
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/04/16 15:10	3.47
Chloroethane	ND		2.0	0.35	ppb v/v			03/04/16 15:10	3.47
Chloroform	ND		2.0	0.38	ppb v/v			03/04/16 15:10	3.47
Chloromethane	ND		5.0	1.6	ppb v/v			03/04/16 15:10	3.47
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/04/16 15:10	3.47
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/04/16 15:10	3.47
Dichlorodifluoromethane	**1.2**	**J**	2.0	0.68	ppb v/v			03/04/16 15:10	3.47
Ethylbenzene	**18**		2.0	0.68	ppb v/v			03/04/16 15:10	3.47
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/04/16 15:10	3.47
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/04/16 15:10	3.47
m-Xylene & p-Xylene	**6.0**		2.0	1.2	ppb v/v			03/04/16 15:10	3.47
Naphthalene	ND		5.0	0.90	ppb v/v			03/04/16 15:10	3.47
n-Hexane	**90**		5.0	0.32	ppb v/v			03/04/16 15:10	3.47
o-Xylene	**3.3**		2.0	0.61	ppb v/v			03/04/16 15:10	3.47
Styrene	ND		2.0	0.58	ppb v/v			03/04/16 15:10	3.47
Tetrachloroethene	ND		2.0	0.40	ppb v/v			03/04/16 15:10	3.47
Toluene	**13**		2.0	1.2	ppb v/v			03/04/16 15:10	3.47
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/04/16 15:10	3.47
Trichloroethene	ND		2.0	0.36	ppb v/v			03/04/16 15:10	3.47
Trichlorofluoromethane	ND		2.0	0.24	ppb v/v			03/04/16 15:10	3.47
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/04/16 15:10	3.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/04/16 15:10	3.47
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/04/16 15:10	3.47

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/04/16 15:10	3.47
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/04/16 15:10	3.47
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/04/16 15:10	3.47
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/04/16 15:10	3.47
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/04/16 15:10	3.47
1,2,4-Trimethylbenzene	**10**		9.8	3.1	ug/m3			03/04/16 15:10	3.47
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/04/16 15:10	3.47
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/04/16 15:10	3.47
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/04/16 15:10	3.47
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/04/16 15:10	3.47
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/04/16 15:10	3.47
1,3,5-Trimethylbenzene	**4.5**	**J**	9.8	3.2	ug/m3			03/04/16 15:10	3.47
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/04/16 15:10	3.47
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/04/16 15:10	3.47
2,2,4-Trimethylpentane	**92**		23	1.8	ug/m3			03/04/16 15:10	3.47
2-Butanone (MEK)	**74**		29	5.9	ug/m3			03/04/16 15:10	3.47
Acetone	**260**		120	33	ug/m3			03/04/16 15:10	3.47
Benzene	**53**		6.4	1.8	ug/m3			03/04/16 15:10	3.47
Benzyl chloride	ND		21	4.0	ug/m3			03/04/16 15:10	3.47
Bromomethane	ND		7.8	1.2	ug/m3			03/04/16 15:10	3.47
Carbon disulfide	**20**		16	0.97	ug/m3			03/04/16 15:10	3.47
Carbon tetrachloride	ND		13	2.4	ug/m3			03/04/16 15:10	3.47
Chlorobenzene	ND		9.2	2.3	ug/m3			03/04/16 15:10	3.47
Chloroethane	ND		5.3	0.92	ug/m3			03/04/16 15:10	3.47
Chloroform	ND		9.8	1.9	ug/m3			03/04/16 15:10	3.47
Chloromethane	ND		10	3.3	ug/m3			03/04/16 15:10	3.47
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/04/16 15:10	3.47
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/04/16 15:10	3.47
Dichlorodifluoromethane	**5.8**	**J**	9.9	3.4	ug/m3			03/04/16 15:10	3.47
Ethylbenzene	**80**		8.7	3.0	ug/m3			03/04/16 15:10	3.47
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/04/16 15:10	3.47
Methylene Chloride	**6.0**	**J B**	17	4.5	ug/m3			03/04/16 15:10	3.47
m-Xylene & p-Xylene	**26**		8.7	5.2	ug/m3			03/04/16 15:10	3.47
Naphthalene	ND		26	4.7	ug/m3			03/04/16 15:10	3.47
n-Hexane	**320**		18	1.1	ug/m3			03/04/16 15:10	3.47
o-Xylene	**14**		8.7	2.6	ug/m3			03/04/16 15:10	3.47
Styrene	ND		8.5	2.5	ug/m3			03/04/16 15:10	3.47
Tetrachloroethene	ND		14	2.7	ug/m3			03/04/16 15:10	3.47
Toluene	**49**		7.5	4.5	ug/m3			03/04/16 15:10	3.47
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/04/16 15:10	3.47
Trichloroethene	ND		11	1.9	ug/m3			03/04/16 15:10	3.47
Trichlorofluoromethane	ND		11	1.3	ug/m3			03/04/16 15:10	3.47
Vinyl chloride	ND		5.1	1.8	ug/m3			03/04/16 15:10	3.47

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*03/04/16 15:10*	*3.47*

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-4
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 18:58	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 18:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 18:58	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 18:58	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 18:58	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 18:58	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 18:58	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 18:58	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 18:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 18:58	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 18:58	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 18:58	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 18:58	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 18:58	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 18:58	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 18:58	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 18:58	1
2-Butanone (MEK)	**7.0**	**J**	10	2.0	ppb v/v			03/03/16 18:58	1
Acetone	**63**		50	14	ppb v/v			03/03/16 18:58	1
Benzene	**0.60**	**J**	2.0	0.56	ppb v/v			03/03/16 18:58	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 18:58	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 18:58	1
Carbon disulfide	**2.0**	**J**	5.0	0.31	ppb v/v			03/03/16 18:58	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 18:58	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 18:58	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 18:58	1
Chloroform	**0.97**	**J**	2.0	0.38	ppb v/v			03/03/16 18:58	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 18:58	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 18:58	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 18:58	1
Dichlorodifluoromethane	**2.4**		2.0	0.68	ppb v/v			03/03/16 18:58	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 18:58	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 18:58	1
Methylene Chloride	**1.8**	**J B**	5.0	1.3	ppb v/v			03/03/16 18:58	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 18:58	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 18:58	1
n-Hexane	**1.9**	**J**	5.0	0.32	ppb v/v			03/03/16 18:58	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 18:58	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 18:58	1
Tetrachloroethene	**0.56**	**J**	2.0	0.40	ppb v/v			03/03/16 18:58	1
Toluene	**1.2**	**J**	2.0	1.2	ppb v/v			03/03/16 18:58	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 18:58	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 18:58	1
Trichlorofluoromethane	**16**		2.0	0.24	ppb v/v			03/03/16 18:58	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 18:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 18:58	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 18:58	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-4
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 18:58	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 18:58	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 18:58	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 18:58	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 18:58	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 18:58	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 18:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 18:58	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 18:58	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 18:58	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 18:58	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 18:58	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 18:58	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 18:58	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 18:58	1
2-Butanone (MEK)	**21**	**J**	29	5.9	ug/m3			03/03/16 18:58	1
Acetone	**150**		120	33	ug/m3			03/03/16 18:58	1
Benzene	**1.9**	**J**	6.4	1.8	ug/m3			03/03/16 18:58	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 18:58	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 18:58	1
Carbon disulfide	**6.3**	**J**	16	0.97	ug/m3			03/03/16 18:58	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 18:58	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 18:58	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 18:58	1
Chloroform	**4.7**	**J**	9.8	1.9	ug/m3			03/03/16 18:58	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 18:58	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 18:58	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 18:58	1
Dichlorodifluoromethane	**12**		9.9	3.4	ug/m3			03/03/16 18:58	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 18:58	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 18:58	1
Methylene Chloride	**6.1**	**J B**	17	4.5	ug/m3			03/03/16 18:58	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 18:58	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 18:58	1
n-Hexane	**6.7**	**J**	18	1.1	ug/m3			03/03/16 18:58	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 18:58	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 18:58	1
Tetrachloroethene	**3.8**	**J**	14	2.7	ug/m3			03/03/16 18:58	1
Toluene	**4.6**	**J**	7.5	4.5	ug/m3			03/03/16 18:58	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 18:58	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 18:58	1
Trichlorofluoromethane	**90**		11	1.3	ug/m3			03/03/16 18:58	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*03/03/16 18:58*	*1*

Default Detection Limits

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.030	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.16	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.061	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.42	ug/m3	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	0.031	ppb v/v	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	0.24	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.054	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.29	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	1.0	0.098	ppb v/v	TO-15
1,2,4-Trichlorobenzene	7.4	0.73	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.063	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.31	ug/m3	TO-15
1,2-Dibromoethane (EDB)	0.20	0.044	ppb v/v	TO-15
1,2-Dibromoethane (EDB)	1.5	0.34	ug/m3	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	0.032	ppb v/v	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	0.22	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.070	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.42	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.047	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.19	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.052	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.24	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.065	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.32	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.064	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.38	ug/m3	TO-15
2,2,4-Trimethylpentane	0.50	0.039	ppb v/v	TO-15
2,2,4-Trimethylpentane	2.3	0.18	ug/m3	TO-15
2-Butanone (MEK)	1.0	0.20	ppb v/v	TO-15
2-Butanone (MEK)	2.9	0.59	ug/m3	TO-15
Acetone	5.0	1.4	ppb v/v	TO-15
Acetone	12	3.3	ug/m3	TO-15
Benzene	0.20	0.056	ppb v/v	TO-15
Benzene	0.64	0.18	ug/m3	TO-15
Benzyl chloride	0.40	0.078	ppb v/v	TO-15
Benzyl chloride	2.1	0.40	ug/m3	TO-15
Bromomethane	0.20	0.032	ppb v/v	TO-15
Bromomethane	0.78	0.12	ug/m3	TO-15
Carbon disulfide	0.50	0.031	ppb v/v	TO-15
Carbon disulfide	1.6	0.097	ug/m3	TO-15
Carbon tetrachloride	0.20	0.038	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.24	ug/m3	TO-15
Chlorobenzene	0.20	0.049	ppb v/v	TO-15
Chlorobenzene	0.92	0.23	ug/m3	TO-15
Chloroethane	0.20	0.035	ppb v/v	TO-15
Chloroethane	0.53	0.092	ug/m3	TO-15

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Chloroform	0.20	0.038	ppb v/v	TO-15
Chloroform	0.98	0.19	ug/m3	TO-15
Chloromethane	0.50	0.16	ppb v/v	TO-15
Chloromethane	1.0	0.33	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.060	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.24	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.074	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.34	ug/m3	TO-15
Dichlorodifluoromethane	0.20	0.068	ppb v/v	TO-15
Dichlorodifluoromethane	0.99	0.34	ug/m3	TO-15
Ethylbenzene	0.20	0.068	ppb v/v	TO-15
Ethylbenzene	0.87	0.30	ug/m3	TO-15
Hexachlorobutadiene	1.0	0.078	ppb v/v	TO-15
Hexachlorobutadiene	11	0.83	ug/m3	TO-15
Methylene Chloride	0.50	0.13	ppb v/v	TO-15
Methylene Chloride	1.7	0.45	ug/m3	TO-15
m-Xylene & p-Xylene	0.20	0.12	ppb v/v	TO-15
m-Xylene & p-Xylene	0.87	0.52	ug/m3	TO-15
Naphthalene	0.50	0.090	ppb v/v	TO-15
Naphthalene	2.6	0.47	ug/m3	TO-15
n-Hexane	0.50	0.032	ppb v/v	TO-15
n-Hexane	1.8	0.11	ug/m3	TO-15
o-Xylene	0.20	0.061	ppb v/v	TO-15
o-Xylene	0.87	0.26	ug/m3	TO-15
Styrene	0.20	0.058	ppb v/v	TO-15
Styrene	0.85	0.25	ug/m3	TO-15
Tetrachloroethene	0.20	0.040	ppb v/v	TO-15
Tetrachloroethene	1.4	0.27	ug/m3	TO-15
Toluene	0.20	0.12	ppb v/v	TO-15
Toluene	0.75	0.45	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.048	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.22	ug/m3	TO-15
Trichloroethene	0.20	0.036	ppb v/v	TO-15
Trichloroethene	1.1	0.19	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.024	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.13	ug/m3	TO-15
Vinyl chloride	0.20	0.071	ppb v/v	TO-15
Vinyl chloride	0.51	0.18	ug/m3	TO-15

Surrogate Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

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

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-4540-1	SB-3	100								
140-4540-2	SB-6	99								
140-4540-3	SB-7	90								
140-4540-4	FIELD DUPLICATE	102								
LCS 140-4389/1002	Lab Control Sample	83								
LCS 140-4391/1002	Lab Control Sample	115								
MB 140-4389/4	Method Blank	94								
MB 140-4391/5	Method Blank	109								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-4389/4
Matrix: Air
Analysis Batch: 4389

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			03/04/16 13:35	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			03/04/16 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			03/04/16 13:35	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			03/04/16 13:35	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			03/04/16 13:35	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			03/04/16 13:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			03/04/16 13:35	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			03/04/16 13:35	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			03/04/16 13:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			03/04/16 13:35	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			03/04/16 13:35	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			03/04/16 13:35	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			03/04/16 13:35	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			03/04/16 13:35	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			03/04/16 13:35	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			03/04/16 13:35	1
2,2,4-Trimethylpentane	ND		0.50	0.039	ppb v/v			03/04/16 13:35	1
2-Butanone (MEK)	ND		1.0	0.20	ppb v/v			03/04/16 13:35	1
Acetone	ND		5.0	1.4	ppb v/v			03/04/16 13:35	1
Benzene	ND		0.20	0.056	ppb v/v			03/04/16 13:35	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			03/04/16 13:35	1
Bromomethane	ND		0.20	0.032	ppb v/v			03/04/16 13:35	1
Carbon disulfide	ND		0.50	0.031	ppb v/v			03/04/16 13:35	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			03/04/16 13:35	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			03/04/16 13:35	1
Chloroethane	ND		0.20	0.035	ppb v/v			03/04/16 13:35	1
Chloroform	ND		0.20	0.038	ppb v/v			03/04/16 13:35	1
Chloromethane	ND		0.50	0.16	ppb v/v			03/04/16 13:35	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			03/04/16 13:35	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			03/04/16 13:35	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			03/04/16 13:35	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			03/04/16 13:35	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			03/04/16 13:35	1
Methylene Chloride	0.153	J	0.50	0.13	ppb v/v			03/04/16 13:35	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			03/04/16 13:35	1
Naphthalene	ND		0.50	0.090	ppb v/v			03/04/16 13:35	1
n-Hexane	ND		0.50	0.032	ppb v/v			03/04/16 13:35	1
o-Xylene	ND		0.20	0.061	ppb v/v			03/04/16 13:35	1
Styrene	ND		0.20	0.058	ppb v/v			03/04/16 13:35	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			03/04/16 13:35	1
Toluene	ND		0.20	0.12	ppb v/v			03/04/16 13:35	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			03/04/16 13:35	1
Trichloroethene	ND		0.20	0.036	ppb v/v			03/04/16 13:35	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			03/04/16 13:35	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			03/04/16 13:35	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			03/04/16 13:35	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4389/4
Matrix: Air
Analysis Batch: 4389

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			03/04/16 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			03/04/16 13:35	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			03/04/16 13:35	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			03/04/16 13:35	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			03/04/16 13:35	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			03/04/16 13:35	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			03/04/16 13:35	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			03/04/16 13:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			03/04/16 13:35	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			03/04/16 13:35	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			03/04/16 13:35	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			03/04/16 13:35	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			03/04/16 13:35	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			03/04/16 13:35	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			03/04/16 13:35	1
2,2,4-Trimethylpentane	ND		2.3	0.18	ug/m3			03/04/16 13:35	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			03/04/16 13:35	1
Acetone	ND		12	3.3	ug/m3			03/04/16 13:35	1
Benzene	ND		0.64	0.18	ug/m3			03/04/16 13:35	1
Benzyl chloride	ND		2.1	0.40	ug/m3			03/04/16 13:35	1
Bromomethane	ND		0.78	0.12	ug/m3			03/04/16 13:35	1
Carbon disulfide	ND		1.6	0.097	ug/m3			03/04/16 13:35	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			03/04/16 13:35	1
Chlorobenzene	ND		0.92	0.23	ug/m3			03/04/16 13:35	1
Chloroethane	ND		0.53	0.092	ug/m3			03/04/16 13:35	1
Chloroform	ND		0.98	0.19	ug/m3			03/04/16 13:35	1
Chloromethane	ND		1.0	0.33	ug/m3			03/04/16 13:35	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			03/04/16 13:35	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			03/04/16 13:35	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			03/04/16 13:35	1
Ethylbenzene	ND		0.87	0.30	ug/m3			03/04/16 13:35	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			03/04/16 13:35	1
Methylene Chloride	0.531	J	1.7	0.45	ug/m3			03/04/16 13:35	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			03/04/16 13:35	1
Naphthalene	ND		2.6	0.47	ug/m3			03/04/16 13:35	1
n-Hexane	ND		1.8	0.11	ug/m3			03/04/16 13:35	1
o-Xylene	ND		0.87	0.26	ug/m3			03/04/16 13:35	1
Styrene	ND		0.85	0.25	ug/m3			03/04/16 13:35	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			03/04/16 13:35	1
Toluene	ND		0.75	0.45	ug/m3			03/04/16 13:35	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			03/04/16 13:35	1
Trichloroethene	ND		1.1	0.19	ug/m3			03/04/16 13:35	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			03/04/16 13:35	1
Vinyl chloride	ND		0.51	0.18	ug/m3			03/04/16 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*03/04/16 13:35*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-4389/1002
Matrix: Air
Analysis Batch: 4389

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	1.75		ppb v/v		87	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.03		ppb v/v		101	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.10		ppb v/v		105	70 - 130
1,1,2-Trichloroethane	2.00	1.87		ppb v/v		94	70 - 130
1,1-Dichloroethane	2.00	1.66		ppb v/v		83	70 - 130
1,1-Dichloroethene	2.00	2.31		ppb v/v		115	70 - 130
1,2,4-Trichlorobenzene	2.00	2.23		ppb v/v		112	60 - 140
1,2,4-Trimethylbenzene	2.00	2.05		ppb v/v		103	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.93		ppb v/v		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.32		ppb v/v		116	60 - 140
1,2-Dichlorobenzene	2.00	2.14		ppb v/v		107	70 - 130
1,2-Dichloroethane	2.00	1.57		ppb v/v		78	70 - 130
1,2-Dichloropropane	2.00	1.74		ppb v/v		87	70 - 130
1,3,5-Trimethylbenzene	2.00	2.12		ppb v/v		106	70 - 130
1,3-Dichlorobenzene	2.00	2.12		ppb v/v		106	70 - 130
1,4-Dichlorobenzene	2.00	2.16		ppb v/v		108	70 - 130
2,2,4-Trimethylpentane	2.00	1.82		ppb v/v		91	70 - 130
2-Butanone (MEK)	2.00	1.91		ppb v/v		96	60 - 140
Acetone	6.00	5.72		ppb v/v		95	60 - 140
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Benzyl chloride	2.00	2.21		ppb v/v		111	70 - 130
Bromomethane	2.00	2.37		ppb v/v		118	70 - 130
Carbon disulfide	2.00	2.31		ppb v/v		116	70 - 130
Carbon tetrachloride	2.00	1.95		ppb v/v		98	70 - 130
Chlorobenzene	2.00	1.96		ppb v/v		98	70 - 130
Chloroethane	2.00	2.20		ppb v/v		110	70 - 130
Chloroform	2.00	1.78		ppb v/v		89	70 - 130
Chloromethane	2.00	2.20		ppb v/v		110	60 - 140
cis-1,2-Dichloroethene	2.00	1.93		ppb v/v		96	70 - 130
cis-1,3-Dichloropropene	2.00	1.87		ppb v/v		93	70 - 130
Dichlorodifluoromethane	2.00	2.15		ppb v/v		107	60 - 140
Ethylbenzene	2.00	2.02		ppb v/v		101	70 - 130
Hexachlorobutadiene	2.00	2.44		ppb v/v		122	60 - 140
Methylene Chloride	2.00	2.03		ppb v/v		102	70 - 130
m-Xylene & p-Xylene	4.00	4.04		ppb v/v		101	70 - 130
Naphthalene	2.00	2.18		ppb v/v		109	60 - 140
n-Hexane	2.00	1.83		ppb v/v		92	70 - 130
o-Xylene	2.00	2.01		ppb v/v		100	70 - 130
Styrene	2.00	2.02		ppb v/v		101	70 - 130
Tetrachloroethene	2.00	1.91		ppb v/v		95	70 - 130
Toluene	2.00	1.97		ppb v/v		98	70 - 130
trans-1,3-Dichloropropene	2.00	1.83		ppb v/v		91	70 - 130
Trichloroethene	2.00	2.00		ppb v/v		100	70 - 130
Trichlorofluoromethane	2.00	2.12		ppb v/v		106	60 - 140
Vinyl chloride	2.00	2.14		ppb v/v		107	70 - 130

QC Sample Results

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	9.53		ug/m3		87	70 - 130
1,1,2,2-Tetrachloroethane	14	13.9		ug/m3		101	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	15	16.1		ug/m3		105	70 - 130
1,1,2-Trichloroethane	11	10.2		ug/m3		94	70 - 130
1,1-Dichloroethane	8.1	6.70		ug/m3		83	70 - 130
1,1-Dichloroethene	7.9	9.15		ug/m3		115	70 - 130
1,2,4-Trichlorobenzene	15	16.6		ug/m3		112	60 - 140
1,2,4-Trimethylbenzene	9.8	10.1		ug/m3		103	70 - 130
1,2-Dibromoethane (EDB)	15	14.8		ug/m3		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	16.2		ug/m3		116	60 - 140
1,2-Dichlorobenzene	12	12.9		ug/m3		107	70 - 130
1,2-Dichloroethane	8.1	6.36		ug/m3		78	70 - 130
1,2-Dichloropropane	9.2	8.04		ug/m3		87	70 - 130
1,3,5-Trimethylbenzene	9.8	10.4		ug/m3		106	70 - 130
1,3-Dichlorobenzene	12	12.7		ug/m3		106	70 - 130
1,4-Dichlorobenzene	12	13.0		ug/m3		108	70 - 130
2,2,4-Trimethylpentane	9.3	8.51		ug/m3		91	70 - 130
2-Butanone (MEK)	5.9	5.64		ug/m3		96	60 - 140
Acetone	14	13.6		ug/m3		95	60 - 140
Benzene	6.4	5.68		ug/m3		89	70 - 130
Benzyl chloride	10	11.5		ug/m3		111	70 - 130
Bromomethane	7.8	9.21		ug/m3		118	70 - 130
Carbon disulfide	6.2	7.21		ug/m3		116	70 - 130
Carbon tetrachloride	13	12.3		ug/m3		98	70 - 130
Chlorobenzene	9.2	9.01		ug/m3		98	70 - 130
Chloroethane	5.3	5.80		ug/m3		110	70 - 130
Chloroform	9.8	8.68		ug/m3		89	70 - 130
Chloromethane	4.1	4.54		ug/m3		110	60 - 140
cis-1,2-Dichloroethene	7.9	7.64		ug/m3		96	70 - 130
cis-1,3-Dichloropropene	9.1	8.47		ug/m3		93	70 - 130
Dichlorodifluoromethane	9.9	10.6		ug/m3		107	60 - 140
Ethylbenzene	8.7	8.79		ug/m3		101	70 - 130
Hexachlorobutadiene	21	26.0		ug/m3		122	60 - 140
Methylene Chloride	7.0	7.06		ug/m3		102	70 - 130
m-Xylene & p-Xylene	17	17.6		ug/m3		101	70 - 130
Naphthalene	10	11.4		ug/m3		109	60 - 140
n-Hexane	7.1	6.46		ug/m3		92	70 - 130
o-Xylene	8.7	8.73		ug/m3		100	70 - 130
Styrene	8.5	8.60		ug/m3		101	70 - 130
Tetrachloroethene	14	13.0		ug/m3		95	70 - 130
Toluene	7.5	7.42		ug/m3		98	70 - 130
trans-1,3-Dichloropropene	9.1	8.29		ug/m3		91	70 - 130
Trichloroethene	11	10.8		ug/m3		100	70 - 130
Trichlorofluoromethane	11	11.9		ug/m3		106	60 - 140
Vinyl chloride	5.1	5.47		ug/m3		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4391/5
Matrix: Air
Analysis Batch: 4391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			03/03/16 13:06	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			03/03/16 13:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			03/03/16 13:06	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			03/03/16 13:06	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			03/03/16 13:06	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			03/03/16 13:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			03/03/16 13:06	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			03/03/16 13:06	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			03/03/16 13:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			03/03/16 13:06	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			03/03/16 13:06	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			03/03/16 13:06	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			03/03/16 13:06	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			03/03/16 13:06	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			03/03/16 13:06	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			03/03/16 13:06	1
2,2,4-Trimethylpentane	ND		0.50	0.039	ppb v/v			03/03/16 13:06	1
2-Butanone (MEK)	ND		1.0	0.20	ppb v/v			03/03/16 13:06	1
Acetone	ND		5.0	1.4	ppb v/v			03/03/16 13:06	1
Benzene	ND		0.20	0.056	ppb v/v			03/03/16 13:06	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			03/03/16 13:06	1
Bromomethane	ND		0.20	0.032	ppb v/v			03/03/16 13:06	1
Carbon disulfide	ND		0.50	0.031	ppb v/v			03/03/16 13:06	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			03/03/16 13:06	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			03/03/16 13:06	1
Chloroethane	ND		0.20	0.035	ppb v/v			03/03/16 13:06	1
Chloroform	ND		0.20	0.038	ppb v/v			03/03/16 13:06	1
Chloromethane	ND		0.50	0.16	ppb v/v			03/03/16 13:06	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			03/03/16 13:06	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			03/03/16 13:06	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			03/03/16 13:06	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			03/03/16 13:06	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			03/03/16 13:06	1
Methylene Chloride	0.155	J	0.50	0.13	ppb v/v			03/03/16 13:06	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			03/03/16 13:06	1
Naphthalene	ND		0.50	0.090	ppb v/v			03/03/16 13:06	1
n-Hexane	ND		0.50	0.032	ppb v/v			03/03/16 13:06	1
o-Xylene	ND		0.20	0.061	ppb v/v			03/03/16 13:06	1
Styrene	ND		0.20	0.058	ppb v/v			03/03/16 13:06	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			03/03/16 13:06	1
Toluene	ND		0.20	0.12	ppb v/v			03/03/16 13:06	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			03/03/16 13:06	1
Trichloroethene	ND		0.20	0.036	ppb v/v			03/03/16 13:06	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			03/03/16 13:06	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			03/03/16 13:06	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			03/03/16 13:06	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4391/5
Matrix: Air
Analysis Batch: 4391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			03/03/16 13:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			03/03/16 13:06	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			03/03/16 13:06	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			03/03/16 13:06	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			03/03/16 13:06	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			03/03/16 13:06	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			03/03/16 13:06	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			03/03/16 13:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			03/03/16 13:06	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			03/03/16 13:06	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			03/03/16 13:06	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			03/03/16 13:06	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			03/03/16 13:06	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			03/03/16 13:06	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			03/03/16 13:06	1
2,2,4-Trimethylpentane	ND		2.3	0.18	ug/m3			03/03/16 13:06	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			03/03/16 13:06	1
Acetone	ND		12	3.3	ug/m3			03/03/16 13:06	1
Benzene	ND		0.64	0.18	ug/m3			03/03/16 13:06	1
Benzyl chloride	ND		2.1	0.40	ug/m3			03/03/16 13:06	1
Bromomethane	ND		0.78	0.12	ug/m3			03/03/16 13:06	1
Carbon disulfide	ND		1.6	0.097	ug/m3			03/03/16 13:06	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			03/03/16 13:06	1
Chlorobenzene	ND		0.92	0.23	ug/m3			03/03/16 13:06	1
Chloroethane	ND		0.53	0.092	ug/m3			03/03/16 13:06	1
Chloroform	ND		0.98	0.19	ug/m3			03/03/16 13:06	1
Chloromethane	ND		1.0	0.33	ug/m3			03/03/16 13:06	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			03/03/16 13:06	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			03/03/16 13:06	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			03/03/16 13:06	1
Ethylbenzene	ND		0.87	0.30	ug/m3			03/03/16 13:06	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			03/03/16 13:06	1
Methylene Chloride	0.539	J	1.7	0.45	ug/m3			03/03/16 13:06	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			03/03/16 13:06	1
Naphthalene	ND		2.6	0.47	ug/m3			03/03/16 13:06	1
n-Hexane	ND		1.8	0.11	ug/m3			03/03/16 13:06	1
o-Xylene	ND		0.87	0.26	ug/m3			03/03/16 13:06	1
Styrene	ND		0.85	0.25	ug/m3			03/03/16 13:06	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			03/03/16 13:06	1
Toluene	ND		0.75	0.45	ug/m3			03/03/16 13:06	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			03/03/16 13:06	1
Trichloroethene	ND		1.1	0.19	ug/m3			03/03/16 13:06	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			03/03/16 13:06	1
Vinyl chloride	ND		0.51	0.18	ug/m3			03/03/16 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*03/03/16 13:06*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-4391/1002
Matrix: Air
Analysis Batch: 4391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.16		ppb v/v		108	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.60		ppb v/v		80	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	1.83		ppb v/v		92	70 - 130
1,1,2-Trichloroethane	2.00	1.67		ppb v/v		83	70 - 130
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,1-Dichloroethene	2.00	1.66		ppb v/v		83	70 - 130
1,2,4-Trichlorobenzene	2.00	1.53		ppb v/v		77	60 - 140
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		84	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.76		ppb v/v		88	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	1.97		ppb v/v		98	60 - 140
1,2-Dichlorobenzene	2.00	1.52		ppb v/v		76	70 - 130
1,2-Dichloroethane	2.00	2.05		ppb v/v		103	70 - 130
1,2-Dichloropropane	2.00	1.71		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.57		ppb v/v		78	70 - 130
1,3-Dichlorobenzene	2.00	1.54		ppb v/v		77	70 - 130
1,4-Dichlorobenzene	2.00	1.54		ppb v/v		77	70 - 130
2,2,4-Trimethylpentane	2.00	1.71		ppb v/v		86	70 - 130
2-Butanone (MEK)	2.00	1.57		ppb v/v		79	60 - 140
Acetone	6.00	5.05		ppb v/v		84	60 - 140
Benzene	2.00	1.74		ppb v/v		87	70 - 130
Benzyl chloride	2.00	1.78		ppb v/v		89	70 - 130
Bromomethane	2.00	1.78		ppb v/v		89	70 - 130
Carbon disulfide	2.00	1.69		ppb v/v		84	70 - 130
Carbon tetrachloride	2.00	2.29		ppb v/v		114	70 - 130
Chlorobenzene	2.00	1.68		ppb v/v		84	70 - 130
Chloroethane	2.00	1.73		ppb v/v		86	70 - 130
Chloroform	2.00	2.01		ppb v/v		101	70 - 130
Chloromethane	2.00	1.59		ppb v/v		80	60 - 140
cis-1,2-Dichloroethene	2.00	1.78		ppb v/v		89	70 - 130
cis-1,3-Dichloropropene	2.00	1.94		ppb v/v		97	70 - 130
Dichlorodifluoromethane	2.00	2.24		ppb v/v		112	60 - 140
Ethylbenzene	2.00	1.71		ppb v/v		85	70 - 130
Hexachlorobutadiene	2.00	1.51		ppb v/v		76	60 - 140
Methylene Chloride	2.00	1.57		ppb v/v		79	70 - 130
m-Xylene & p-Xylene	4.00	3.56		ppb v/v		89	70 - 130
Naphthalene	2.00	1.81		ppb v/v		90	60 - 140
n-Hexane	2.00	1.78		ppb v/v		89	70 - 130
o-Xylene	2.00	1.70		ppb v/v		85	70 - 130
Styrene	2.00	1.71		ppb v/v		85	70 - 130
Tetrachloroethene	2.00	1.82		ppb v/v		91	70 - 130
Toluene	2.00	1.71		ppb v/v		86	70 - 130
trans-1,3-Dichloropropene	2.00	1.86		ppb v/v		93	70 - 130
Trichloroethene	2.00	1.70		ppb v/v		85	70 - 130
Trichlorofluoromethane	2.00	2.44		ppb v/v		122	60 - 140
Vinyl chloride	2.00	1.79		ppb v/v		90	70 - 130

QC Sample Results

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	11.8		ug/m3		108	70 - 130
1,1,2,2-Tetrachloroethane	14	11.0		ug/m3		80	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	15	14.0		ug/m3		92	70 - 130
1,1,2-Trichloroethane	11	9.09		ug/m3		83	70 - 130
1,1-Dichloroethane	8.1	7.43		ug/m3		92	70 - 130
1,1-Dichloroethene	7.9	6.58		ug/m3		83	70 - 130
1,2,4-Trichlorobenzene	15	11.4		ug/m3		77	60 - 140
1,2,4-Trimethylbenzene	9.8	8.28		ug/m3		84	70 - 130
1,2-Dibromoethane (EDB)	15	13.5		ug/m3		88	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	13.7		ug/m3		98	60 - 140
1,2-Dichlorobenzene	12	9.14		ug/m3		76	70 - 130
1,2-Dichloroethane	8.1	8.31		ug/m3		103	70 - 130
1,2-Dichloropropane	9.2	7.90		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	7.71		ug/m3		78	70 - 130
1,3-Dichlorobenzene	12	9.26		ug/m3		77	70 - 130
1,4-Dichlorobenzene	12	9.25		ug/m3		77	70 - 130
2,2,4-Trimethylpentane	9.3	7.99		ug/m3		86	70 - 130
2-Butanone (MEK)	5.9	4.64		ug/m3		79	60 - 140
Acetone	14	12.0		ug/m3		84	60 - 140
Benzene	6.4	5.56		ug/m3		87	70 - 130
Benzyl chloride	10	9.22		ug/m3		89	70 - 130
Bromomethane	7.8	6.90		ug/m3		89	70 - 130
Carbon disulfide	6.2	5.26		ug/m3		84	70 - 130
Carbon tetrachloride	13	14.4		ug/m3		114	70 - 130
Chlorobenzene	9.2	7.73		ug/m3		84	70 - 130
Chloroethane	5.3	4.55		ug/m3		86	70 - 130
Chloroform	9.8	9.82		ug/m3		101	70 - 130
Chloromethane	4.1	3.29		ug/m3		80	60 - 140
cis-1,2-Dichloroethene	7.9	7.06		ug/m3		89	70 - 130
cis-1,3-Dichloropropene	9.1	8.82		ug/m3		97	70 - 130
Dichlorodifluoromethane	9.9	11.1		ug/m3		112	60 - 140
Ethylbenzene	8.7	7.41		ug/m3		85	70 - 130
Hexachlorobutadiene	21	16.1		ug/m3		76	60 - 140
Methylene Chloride	6.9	5.46		ug/m3		79	70 - 130
m-Xylene & p-Xylene	17	15.4		ug/m3		89	70 - 130
Naphthalene	10	9.49		ug/m3		90	60 - 140
n-Hexane	7.0	6.26		ug/m3		89	70 - 130
o-Xylene	8.7	7.38		ug/m3		85	70 - 130
Styrene	8.5	7.27		ug/m3		85	70 - 130
Tetrachloroethene	14	12.4		ug/m3		91	70 - 130
Toluene	7.5	6.46		ug/m3		86	70 - 130
trans-1,3-Dichloropropene	9.1	8.42		ug/m3		93	70 - 130
Trichloroethene	11	9.12		ug/m3		85	70 - 130
Trichlorofluoromethane	11	13.7		ug/m3		122	60 - 140
Vinyl chloride	5.1	4.58		ug/m3		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*

QC Association Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Air - GC/MS VOA

Analysis Batch: 4389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-4540-3	SB-7	Total/NA	Air	TO-15	
LCS 140-4389/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-4389/4	Method Blank	Total/NA	Air	TO-15	

Analysis Batch: 4391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-4540-1	SB-3	Total/NA	Air	TO-15	
140-4540-2	SB-6	Total/NA	Air	TO-15	
140-4540-4	FIELD DUPLICATE	Total/NA	Air	TO-15	
LCS 140-4391/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-4391/5	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 16:53	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 17:35	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		3.47	69.4 mL	500 mL	4389	03/04/16 15:10	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 18:58	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-4389/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	4389	03/04/16 09:40	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-4391/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	4391	03/03/16 10:08	HMT	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: Method Blank — Lab Sample ID: MB 140-4389/4

Date Collected: N/A
Date Received: N/A
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	4389	03/04/16 13:35	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-4391/5

Date Collected: N/A
Date Received: N/A
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	4391	03/03/16 13:06	HMT	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Laboratory: TestAmerica Knoxville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-16-16
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-16 *
Connecticut	State Program	1	PH-0223	09-30-17
Florida	NELAP	4	E87177	06-30-16
Georgia	State Program	4	906	04-13-17
Hawaii	State Program	9	N/A	04-13-16
Kansas	NELAP	7	E-10349	05-31-16
Kentucky (DW)	State Program	4	90101	12-31-16
L-A-B	DoD ELAP		L2311	02-13-19
Louisiana	NELAP	6	83979	06-30-16
Louisiana (DW)	NELAP	6	LA110001	12-31-16
Maryland	State Program	3	277	03-31-17
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-16
New Jersey	NELAP	2	TN001	06-30-16
New York	NELAP	2	10781	03-31-16
North Carolina (DW)	State Program	4	21705	07-31-16
North Carolina (WW/SW)	State Program	4	64	12-31-16
Ohio VAP	State Program	5	CL0059	01-16-17
Oklahoma	State Program	6	9415	08-31-16
Pennsylvania	NELAP	3	68-00576	12-31-16
South Carolina	State Program	4	84001	06-30-16
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-15-8	08-31-16
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-16
Virginia	NELAP	3	460176	09-14-16
Washington	State Program	10	C593	01-19-17
West Virginia (DW)	State Program	3	9955C	12-31-16
West Virginia DEP	State Program	3	345	04-30-16
Wisconsin	State Program	5	998044300	08-31-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-4540-1	SB-3	Air	02/26/16 13:20	03/02/16 12:40
140-4540-2	SB-6	Air	02/26/16 13:50	03/02/16 12:40
140-4540-3	SB-7	Air	02/26/16 13:40	03/02/16 12:40
140-4540-4	FIELD DUPLICATE	Air	02/26/16 00:00	03/02/16 12:40

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: BRIAN FETTIN	Sampled By: RON PROCHASKA	1 of 1 COCs
Company: ALFRED BENESCH	Phone:		
Address: 14748 WEST CENTER RD.	Site Contact:		
City/State/Zip OMAHA, NE 68144	TAL Contact: RYAN HENRY		
Phone: 402-333-5792			
FAX:			
Project Name: DOROTHY PATACH	Analysis Turnaround Time		
Site/location: 4903 S. 20TH ST.	Standard (Specify) X		
PO #	Rush (Specify)		

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	TO-14A	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)
SB-3	2-26-16	1320	—	28.5	2.0		10759	X									X		
SB-6	2-26-16	1350	—	28.0	2.0		09830	X									X		
SB-7	2-26-16	1340	—	28.5	2.0		09633	X									X		
FIELD DUPLICATE	2-26-16	—	—	28.5	2.0		09668	X									X		

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

CUSTODY SEALS INTACT
ARRIVED AT AMBIENT TEMP
BKD 3-2-16
1 COOLER UPS# 1Z6319840240190137

4 CANS / 0 FLOWS / 1 T

Special Instructions/QC Requirements & Comments:

140-4540 Chain of Custody

Canisters Shipped by: UPS	Date/Time: 2-29-16/1600	Canisters Received by:
Samples Relinquished by:	Date/Time: 2-29-16/1600	Received by: 3-2-16 12:40
Relinquished by:	Date/Time:	Received by:

Login Sample Receipt Checklist

Client: Alfred Benesch & Company

Job Number: 140-4540-1

Login Number: 4540
List Number: 1
Creator: Dameron, Bryan K

List Source: TestAmerica Knoxville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	CHECKED IN LAB
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
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	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G1
Date: 3/2/2016

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
AFB	140-4540-a-1	10759	4419	B	1	-2.5	1730	
AFB	140-4540-a-2	09830	4419	B	1	-2.1	1731	
AFB	140-4540-a-3	09633	4419	B	1	-2.4	1732	
AFB	140-4540-a-4	09668	4419	B	1	-2.7	1733	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

TestAmerica Job ID: 140-4540-1
Client Project/Site: Dorothy Patch

For:
Alfred Benesch & Company
14748 West Center Road
Suite 200
Omaha, Nebraska 68144

Attn: Brian Fettin

Ryan Henry

Authorized for release by:
3/10/2016 10:43:25 AM

Ryan Henry, Project Manager I
(865)291-3000
william.henry@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Job ID: 140-4540-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative
140-4540-1

Comments
No additional comments.

Receipt
The samples were received on 3/2/2016 at 12:40pm and arrived in good condition.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

No additional analytical or quality issues were noted.

Detection Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3 — Lab Sample ID: 140-4540-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	6.0	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	55		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.59	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.0	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Chloroform	0.94	J	2.0	0.38	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	2.2		2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	2.2	J	5.0	0.32	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.59	J	2.0	0.40	ppb v/v	1		TO-15	Total/NA
Toluene	1.3	J	2.0	1.2	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	15		2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	18	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	130		120	33	ug/m3	1		TO-15	Total/NA
Benzene	1.9	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.2	J	16	0.97	ug/m3	1		TO-15	Total/NA
Chloroform	4.6	J	9.8	1.9	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	11		9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	5.9	J B	17	4.5	ug/m3	1		TO-15	Total/NA
n-Hexane	7.8	J	18	1.1	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	4.0	J	14	2.7	ug/m3	1		TO-15	Total/NA
Toluene	5.0	J	7.5	4.5	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	85		11	1.3	ug/m3	1		TO-15	Total/NA

Client Sample ID: SB-6 — Lab Sample ID: 140-4540-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	9.7	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	99		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.72	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.1	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.85	J	2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	21		5.0	0.32	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	1.7	J	2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	28	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	230		120	33	ug/m3	1		TO-15	Total/NA
Benzene	2.3	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.5	J	16	0.97	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	4.2	J	9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	6.0	J B	17	4.5	ug/m3	1		TO-15	Total/NA
n-Hexane	73		18	1.1	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	9.5	J	11	1.3	ug/m3	1		TO-15	Total/NA

Client Sample ID: SB-7 — Lab Sample ID: 140-4540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.1		2.0	0.63	ppb v/v	3.47		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.91	J	2.0	0.65	ppb v/v	3.47		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample ID: SB-7 (Continued) — Lab Sample ID: 140-4540-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,2,4-Trimethylpentane	20		5.0	0.39	ppb v/v	3.47		TO-15	Total/NA
2-Butanone (MEK)	25		10	2.0	ppb v/v	3.47		TO-15	Total/NA
Acetone	110		50	14	ppb v/v	3.47		TO-15	Total/NA
Benzene	17		2.0	0.56	ppb v/v	3.47		TO-15	Total/NA
Carbon disulfide	6.3		5.0	0.31	ppb v/v	3.47		TO-15	Total/NA
Dichlorodifluoromethane	1.2	J	2.0	0.68	ppb v/v	3.47		TO-15	Total/NA
Ethylbenzene	18		2.0	0.68	ppb v/v	3.47		TO-15	Total/NA
Methylene Chloride	1.7	J B	5.0	1.3	ppb v/v	3.47		TO-15	Total/NA
m-Xylene & p-Xylene	6.0		2.0	1.2	ppb v/v	3.47		TO-15	Total/NA
n-Hexane	90		5.0	0.32	ppb v/v	3.47		TO-15	Total/NA
o-Xylene	3.3		2.0	0.61	ppb v/v	3.47		TO-15	Total/NA
Toluene	13		2.0	1.2	ppb v/v	3.47		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	10		9.8	3.1	ug/m3	3.47		TO-15	Total/NA
1,3,5-Trimethylbenzene	4.5	J	9.8	3.2	ug/m3	3.47		TO-15	Total/NA
2,2,4-Trimethylpentane	92		23	1.8	ug/m3	3.47		TO-15	Total/NA
2-Butanone (MEK)	74		29	5.9	ug/m3	3.47		TO-15	Total/NA
Acetone	260		120	33	ug/m3	3.47		TO-15	Total/NA
Benzene	53		6.4	1.8	ug/m3	3.47		TO-15	Total/NA
Carbon disulfide	20		16	0.97	ug/m3	3.47		TO-15	Total/NA
Dichlorodifluoromethane	5.8	J	9.9	3.4	ug/m3	3.47		TO-15	Total/NA
Ethylbenzene	80		8.7	3.0	ug/m3	3.47		TO-15	Total/NA
Methylene Chloride	6.0	J B	17	4.5	ug/m3	3.47		TO-15	Total/NA
m-Xylene & p-Xylene	26		8.7	5.2	ug/m3	3.47		TO-15	Total/NA
n-Hexane	320		18	1.1	ug/m3	3.47		TO-15	Total/NA
o-Xylene	14		8.7	2.6	ug/m3	3.47		TO-15	Total/NA
Toluene	49		7.5	4.5	ug/m3	3.47		TO-15	Total/NA

Client Sample ID: FIELD DUPLICATE — Lab Sample ID: 140-4540-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	7.0	J	10	2.0	ppb v/v	1		TO-15	Total/NA
Acetone	63		50	14	ppb v/v	1		TO-15	Total/NA
Benzene	0.60	J	2.0	0.56	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.0	J	5.0	0.31	ppb v/v	1		TO-15	Total/NA
Chloroform	0.97	J	2.0	0.38	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	2.4		2.0	0.68	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	1.8	J B	5.0	1.3	ppb v/v	1		TO-15	Total/NA
n-Hexane	1.9	J	5.0	0.32	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.56	J	2.0	0.40	ppb v/v	1		TO-15	Total/NA
Toluene	1.2	J	2.0	1.2	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	16		2.0	0.24	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	21	J	29	5.9	ug/m3	1		TO-15	Total/NA
Acetone	150		120	33	ug/m3	1		TO-15	Total/NA
Benzene	1.9	J	6.4	1.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	6.3	J	16	0.97	ug/m3	1		TO-15	Total/NA
Chloroform	4.7	J	9.8	1.9	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	12		9.9	3.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	6.1	J B	17	4.5	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: FIELD DUPLICATE (Continued) — Lab Sample ID: 140-4540-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Hexane	6.7	J	18	1.1	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	3.8	J	14	2.7	ug/m3	1		TO-15	Total/NA
Toluene	4.6	J	7.5	4.5	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	90		11	1.3	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 16:53	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 16:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 16:53	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 16:53	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 16:53	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 16:53	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 16:53	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 16:53	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 16:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 16:53	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 16:53	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 16:53	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 16:53	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 16:53	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 16:53	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 16:53	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 16:53	1
2-Butanone (MEK)	**6.0**	**J**	10	2.0	ppb v/v			03/03/16 16:53	1
Acetone	**55**		50	14	ppb v/v			03/03/16 16:53	1
Benzene	**0.59**	**J**	2.0	0.56	ppb v/v			03/03/16 16:53	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 16:53	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 16:53	1
Carbon disulfide	**2.0**	**J**	5.0	0.31	ppb v/v			03/03/16 16:53	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 16:53	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 16:53	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 16:53	1
Chloroform	**0.94**	**J**	2.0	0.38	ppb v/v			03/03/16 16:53	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 16:53	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 16:53	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 16:53	1
Dichlorodifluoromethane	**2.2**		2.0	0.68	ppb v/v			03/03/16 16:53	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 16:53	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 16:53	1
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/03/16 16:53	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 16:53	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 16:53	1
n-Hexane	**2.2**	**J**	5.0	0.32	ppb v/v			03/03/16 16:53	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 16:53	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 16:53	1
Tetrachloroethene	**0.59**	**J**	2.0	0.40	ppb v/v			03/03/16 16:53	1
Toluene	**1.3**	**J**	2.0	1.2	ppb v/v			03/03/16 16:53	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 16:53	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 16:53	1
Trichlorofluoromethane	**15**		2.0	0.24	ppb v/v			03/03/16 16:53	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 16:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 16:53	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 16:53	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 16:53	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 16:53	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 16:53	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 16:53	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 16:53	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 16:53	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 16:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 16:53	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 16:53	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 16:53	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 16:53	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 16:53	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 16:53	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 16:53	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 16:53	1
2-Butanone (MEK)	**18**	**J**	29	5.9	ug/m3			03/03/16 16:53	1
Acetone	**130**		120	33	ug/m3			03/03/16 16:53	1
Benzene	**1.9**	**J**	6.4	1.8	ug/m3			03/03/16 16:53	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 16:53	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 16:53	1
Carbon disulfide	**6.2**	**J**	16	0.97	ug/m3			03/03/16 16:53	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 16:53	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 16:53	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 16:53	1
Chloroform	**4.6**	**J**	9.8	1.9	ug/m3			03/03/16 16:53	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 16:53	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 16:53	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 16:53	1
Dichlorodifluoromethane	**11**		9.9	3.4	ug/m3			03/03/16 16:53	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 16:53	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 16:53	1
Methylene Chloride	**5.9**	**J B**	17	4.5	ug/m3			03/03/16 16:53	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 16:53	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 16:53	1
n-Hexane	**7.8**	**J**	18	1.1	ug/m3			03/03/16 16:53	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 16:53	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 16:53	1
Tetrachloroethene	**4.0**	**J**	14	2.7	ug/m3			03/03/16 16:53	1
Toluene	**5.0**	**J**	7.5	4.5	ug/m3			03/03/16 16:53	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 16:53	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 16:53	1
Trichlorofluoromethane	**85**		11	1.3	ug/m3			03/03/16 16:53	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*		*03/03/16 16:53*	*1*

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 17:35	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 17:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 17:35	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 17:35	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 17:35	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 17:35	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 17:35	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 17:35	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 17:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 17:35	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 17:35	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 17:35	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 17:35	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 17:35	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 17:35	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 17:35	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 17:35	1
2-Butanone (MEK)	**9.7**	**J**	10	2.0	ppb v/v			03/03/16 17:35	1
Acetone	**99**		50	14	ppb v/v			03/03/16 17:35	1
Benzene	**0.72**	**J**	2.0	0.56	ppb v/v			03/03/16 17:35	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 17:35	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 17:35	1
Carbon disulfide	**2.1**	**J**	5.0	0.31	ppb v/v			03/03/16 17:35	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 17:35	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 17:35	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 17:35	1
Chloroform	ND		2.0	0.38	ppb v/v			03/03/16 17:35	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 17:35	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 17:35	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 17:35	1
Dichlorodifluoromethane	**0.85**	**J**	2.0	0.68	ppb v/v			03/03/16 17:35	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 17:35	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 17:35	1
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/03/16 17:35	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 17:35	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 17:35	1
n-Hexane	**21**		5.0	0.32	ppb v/v			03/03/16 17:35	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 17:35	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 17:35	1
Tetrachloroethene	ND		2.0	0.40	ppb v/v			03/03/16 17:35	1
Toluene	ND		2.0	1.2	ppb v/v			03/03/16 17:35	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 17:35	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 17:35	1
Trichlorofluoromethane	**1.7**	**J**	2.0	0.24	ppb v/v			03/03/16 17:35	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 17:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 17:35	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 17:35	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-2
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 17:35	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 17:35	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 17:35	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 17:35	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 17:35	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 17:35	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 17:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 17:35	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 17:35	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 17:35	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 17:35	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 17:35	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 17:35	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 17:35	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 17:35	1
2-Butanone (MEK)	**28**	**J**	29	5.9	ug/m3			03/03/16 17:35	1
Acetone	**230**		120	33	ug/m3			03/03/16 17:35	1
Benzene	**2.3**	**J**	6.4	1.8	ug/m3			03/03/16 17:35	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 17:35	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 17:35	1
Carbon disulfide	**6.5**	**J**	16	0.97	ug/m3			03/03/16 17:35	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 17:35	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 17:35	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 17:35	1
Chloroform	ND		9.8	1.9	ug/m3			03/03/16 17:35	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 17:35	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 17:35	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 17:35	1
Dichlorodifluoromethane	**4.2**	**J**	9.9	3.4	ug/m3			03/03/16 17:35	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 17:35	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 17:35	1
Methylene Chloride	**6.0**	**J B**	17	4.5	ug/m3			03/03/16 17:35	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 17:35	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 17:35	1
n-Hexane	**73**		18	1.1	ug/m3			03/03/16 17:35	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 17:35	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 17:35	1
Tetrachloroethene	ND		14	2.7	ug/m3			03/03/16 17:35	1
Toluene	ND		7.5	4.5	ug/m3			03/03/16 17:35	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 17:35	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 17:35	1
Trichlorofluoromethane	**9.5**	**J**	11	1.3	ug/m3			03/03/16 17:35	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*60 - 140*		*03/03/16 17:35*	*1*

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/04/16 15:10	3.47
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/04/16 15:10	3.47
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/04/16 15:10	3.47
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/04/16 15:10	3.47
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/04/16 15:10	3.47
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/04/16 15:10	3.47
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/04/16 15:10	3.47
1,2,4-Trimethylbenzene	**2.1**		2.0	0.63	ppb v/v			03/04/16 15:10	3.47
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/04/16 15:10	3.47
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/04/16 15:10	3.47
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/04/16 15:10	3.47
1,3,5-Trimethylbenzene	**0.91**	**J**	2.0	0.65	ppb v/v			03/04/16 15:10	3.47
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/04/16 15:10	3.47
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/04/16 15:10	3.47
2,2,4-Trimethylpentane	**20**		5.0	0.39	ppb v/v			03/04/16 15:10	3.47
2-Butanone (MEK)	**25**		10	2.0	ppb v/v			03/04/16 15:10	3.47
Acetone	**110**		50	14	ppb v/v			03/04/16 15:10	3.47
Benzene	**17**		2.0	0.56	ppb v/v			03/04/16 15:10	3.47
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/04/16 15:10	3.47
Bromomethane	ND		2.0	0.32	ppb v/v			03/04/16 15:10	3.47
Carbon disulfide	**6.3**		5.0	0.31	ppb v/v			03/04/16 15:10	3.47
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/04/16 15:10	3.47
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/04/16 15:10	3.47
Chloroethane	ND		2.0	0.35	ppb v/v			03/04/16 15:10	3.47
Chloroform	ND		2.0	0.38	ppb v/v			03/04/16 15:10	3.47
Chloromethane	ND		5.0	1.6	ppb v/v			03/04/16 15:10	3.47
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/04/16 15:10	3.47
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/04/16 15:10	3.47
Dichlorodifluoromethane	**1.2**	**J**	2.0	0.68	ppb v/v			03/04/16 15:10	3.47
Ethylbenzene	**18**		2.0	0.68	ppb v/v			03/04/16 15:10	3.47
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/04/16 15:10	3.47
Methylene Chloride	**1.7**	**J B**	5.0	1.3	ppb v/v			03/04/16 15:10	3.47
m-Xylene & p-Xylene	**6.0**		2.0	1.2	ppb v/v			03/04/16 15:10	3.47
Naphthalene	ND		5.0	0.90	ppb v/v			03/04/16 15:10	3.47
n-Hexane	**90**		5.0	0.32	ppb v/v			03/04/16 15:10	3.47
o-Xylene	**3.3**		2.0	0.61	ppb v/v			03/04/16 15:10	3.47
Styrene	ND		2.0	0.58	ppb v/v			03/04/16 15:10	3.47
Tetrachloroethene	ND		2.0	0.40	ppb v/v			03/04/16 15:10	3.47
Toluene	**13**		2.0	1.2	ppb v/v			03/04/16 15:10	3.47
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/04/16 15:10	3.47
Trichloroethene	ND		2.0	0.36	ppb v/v			03/04/16 15:10	3.47
Trichlorofluoromethane	ND		2.0	0.24	ppb v/v			03/04/16 15:10	3.47
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/04/16 15:10	3.47

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/04/16 15:10	3.47
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/04/16 15:10	3.47

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-3
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/04/16 15:10	3.47
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/04/16 15:10	3.47
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/04/16 15:10	3.47
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/04/16 15:10	3.47
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/04/16 15:10	3.47
1,2,4-Trimethylbenzene	**10**		9.8	3.1	ug/m3			03/04/16 15:10	3.47
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/04/16 15:10	3.47
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/04/16 15:10	3.47
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/04/16 15:10	3.47
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/04/16 15:10	3.47
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/04/16 15:10	3.47
1,3,5-Trimethylbenzene	**4.5**	**J**	9.8	3.2	ug/m3			03/04/16 15:10	3.47
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/04/16 15:10	3.47
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/04/16 15:10	3.47
2,2,4-Trimethylpentane	**92**		23	1.8	ug/m3			03/04/16 15:10	3.47
2-Butanone (MEK)	**74**		29	5.9	ug/m3			03/04/16 15:10	3.47
Acetone	**260**		120	33	ug/m3			03/04/16 15:10	3.47
Benzene	**53**		6.4	1.8	ug/m3			03/04/16 15:10	3.47
Benzyl chloride	ND		21	4.0	ug/m3			03/04/16 15:10	3.47
Bromomethane	ND		7.8	1.2	ug/m3			03/04/16 15:10	3.47
Carbon disulfide	**20**		16	0.97	ug/m3			03/04/16 15:10	3.47
Carbon tetrachloride	ND		13	2.4	ug/m3			03/04/16 15:10	3.47
Chlorobenzene	ND		9.2	2.3	ug/m3			03/04/16 15:10	3.47
Chloroethane	ND		5.3	0.92	ug/m3			03/04/16 15:10	3.47
Chloroform	ND		9.8	1.9	ug/m3			03/04/16 15:10	3.47
Chloromethane	ND		10	3.3	ug/m3			03/04/16 15:10	3.47
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/04/16 15:10	3.47
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/04/16 15:10	3.47
Dichlorodifluoromethane	**5.8**	**J**	9.9	3.4	ug/m3			03/04/16 15:10	3.47
Ethylbenzene	**80**		8.7	3.0	ug/m3			03/04/16 15:10	3.47
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/04/16 15:10	3.47
Methylene Chloride	**6.0**	**J B**	17	4.5	ug/m3			03/04/16 15:10	3.47
m-Xylene & p-Xylene	**26**		8.7	5.2	ug/m3			03/04/16 15:10	3.47
Naphthalene	ND		26	4.7	ug/m3			03/04/16 15:10	3.47
n-Hexane	**320**		18	1.1	ug/m3			03/04/16 15:10	3.47
o-Xylene	**14**		8.7	2.6	ug/m3			03/04/16 15:10	3.47
Styrene	ND		8.5	2.5	ug/m3			03/04/16 15:10	3.47
Tetrachloroethene	ND		14	2.7	ug/m3			03/04/16 15:10	3.47
Toluene	**49**		7.5	4.5	ug/m3			03/04/16 15:10	3.47
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/04/16 15:10	3.47
Trichloroethene	ND		11	1.9	ug/m3			03/04/16 15:10	3.47
Trichlorofluoromethane	ND		11	1.3	ug/m3			03/04/16 15:10	3.47
Vinyl chloride	ND		5.1	1.8	ug/m3			03/04/16 15:10	3.47

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*60 - 140*		*03/04/16 15:10*	*3.47*

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-4
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.30	ppb v/v			03/03/16 18:58	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.61	ppb v/v			03/03/16 18:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.31	ppb v/v			03/03/16 18:58	1
1,1,2-Trichloroethane	ND		2.0	0.54	ppb v/v			03/03/16 18:58	1
1,1-Dichloroethane	ND		2.0	0.26	ppb v/v			03/03/16 18:58	1
1,1-Dichloroethene	ND		2.0	0.34	ppb v/v			03/03/16 18:58	1
1,2,4-Trichlorobenzene	ND		10	0.98	ppb v/v			03/03/16 18:58	1
1,2,4-Trimethylbenzene	ND		2.0	0.63	ppb v/v			03/03/16 18:58	1
1,2-Dibromoethane (EDB)	ND		2.0	0.44	ppb v/v			03/03/16 18:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0	0.32	ppb v/v			03/03/16 18:58	1
1,2-Dichlorobenzene	ND		2.0	0.70	ppb v/v			03/03/16 18:58	1
1,2-Dichloroethane	ND		2.0	0.47	ppb v/v			03/03/16 18:58	1
1,2-Dichloropropane	ND		2.0	0.52	ppb v/v			03/03/16 18:58	1
1,3,5-Trimethylbenzene	ND		2.0	0.65	ppb v/v			03/03/16 18:58	1
1,3-Dichlorobenzene	ND		2.0	0.65	ppb v/v			03/03/16 18:58	1
1,4-Dichlorobenzene	ND		2.0	0.64	ppb v/v			03/03/16 18:58	1
2,2,4-Trimethylpentane	ND		5.0	0.39	ppb v/v			03/03/16 18:58	1
2-Butanone (MEK)	**7.0**	**J**	10	2.0	ppb v/v			03/03/16 18:58	1
Acetone	**63**		50	14	ppb v/v			03/03/16 18:58	1
Benzene	**0.60**	**J**	2.0	0.56	ppb v/v			03/03/16 18:58	1
Benzyl chloride	ND		4.0	0.78	ppb v/v			03/03/16 18:58	1
Bromomethane	ND		2.0	0.32	ppb v/v			03/03/16 18:58	1
Carbon disulfide	**2.0**	**J**	5.0	0.31	ppb v/v			03/03/16 18:58	1
Carbon tetrachloride	ND		2.0	0.38	ppb v/v			03/03/16 18:58	1
Chlorobenzene	ND		2.0	0.49	ppb v/v			03/03/16 18:58	1
Chloroethane	ND		2.0	0.35	ppb v/v			03/03/16 18:58	1
Chloroform	**0.97**	**J**	2.0	0.38	ppb v/v			03/03/16 18:58	1
Chloromethane	ND		5.0	1.6	ppb v/v			03/03/16 18:58	1
cis-1,2-Dichloroethene	ND		2.0	0.60	ppb v/v			03/03/16 18:58	1
cis-1,3-Dichloropropene	ND		2.0	0.74	ppb v/v			03/03/16 18:58	1
Dichlorodifluoromethane	**2.4**		2.0	0.68	ppb v/v			03/03/16 18:58	1
Ethylbenzene	ND		2.0	0.68	ppb v/v			03/03/16 18:58	1
Hexachlorobutadiene	ND		10	0.78	ppb v/v			03/03/16 18:58	1
Methylene Chloride	**1.8**	**J B**	5.0	1.3	ppb v/v			03/03/16 18:58	1
m-Xylene & p-Xylene	ND		2.0	1.2	ppb v/v			03/03/16 18:58	1
Naphthalene	ND		5.0	0.90	ppb v/v			03/03/16 18:58	1
n-Hexane	**1.9**	**J**	5.0	0.32	ppb v/v			03/03/16 18:58	1
o-Xylene	ND		2.0	0.61	ppb v/v			03/03/16 18:58	1
Styrene	ND		2.0	0.58	ppb v/v			03/03/16 18:58	1
Tetrachloroethene	**0.56**	**J**	2.0	0.40	ppb v/v			03/03/16 18:58	1
Toluene	**1.2**	**J**	2.0	1.2	ppb v/v			03/03/16 18:58	1
trans-1,3-Dichloropropene	ND		2.0	0.48	ppb v/v			03/03/16 18:58	1
Trichloroethene	ND		2.0	0.36	ppb v/v			03/03/16 18:58	1
Trichlorofluoromethane	**16**		2.0	0.24	ppb v/v			03/03/16 18:58	1
Vinyl chloride	ND		2.0	0.71	ppb v/v			03/03/16 18:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		11	1.6	ug/m3			03/03/16 18:58	1
1,1,2,2-Tetrachloroethane	ND		14	4.2	ug/m3			03/03/16 18:58	1

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40
Sample Container: Summa Canister 1L

Lab Sample ID: 140-4540-4
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	2.4	ug/m3			03/03/16 18:58	1
1,1,2-Trichloroethane	ND		11	2.9	ug/m3			03/03/16 18:58	1
1,1-Dichloroethane	ND		8.1	1.1	ug/m3			03/03/16 18:58	1
1,1-Dichloroethene	ND		7.9	1.3	ug/m3			03/03/16 18:58	1
1,2,4-Trichlorobenzene	ND		74	7.3	ug/m3			03/03/16 18:58	1
1,2,4-Trimethylbenzene	ND		9.8	3.1	ug/m3			03/03/16 18:58	1
1,2-Dibromoethane (EDB)	ND		15	3.4	ug/m3			03/03/16 18:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14	2.2	ug/m3			03/03/16 18:58	1
1,2-Dichlorobenzene	ND		12	4.2	ug/m3			03/03/16 18:58	1
1,2-Dichloroethane	ND		8.1	1.9	ug/m3			03/03/16 18:58	1
1,2-Dichloropropane	ND		9.2	2.4	ug/m3			03/03/16 18:58	1
1,3,5-Trimethylbenzene	ND		9.8	3.2	ug/m3			03/03/16 18:58	1
1,3-Dichlorobenzene	ND		12	3.9	ug/m3			03/03/16 18:58	1
1,4-Dichlorobenzene	ND		12	3.8	ug/m3			03/03/16 18:58	1
2,2,4-Trimethylpentane	ND		23	1.8	ug/m3			03/03/16 18:58	1
2-Butanone (MEK)	**21**	**J**	29	5.9	ug/m3			03/03/16 18:58	1
Acetone	**150**		120	33	ug/m3			03/03/16 18:58	1
Benzene	**1.9**	**J**	6.4	1.8	ug/m3			03/03/16 18:58	1
Benzyl chloride	ND		21	4.0	ug/m3			03/03/16 18:58	1
Bromomethane	ND		7.8	1.2	ug/m3			03/03/16 18:58	1
Carbon disulfide	**6.3**	**J**	16	0.97	ug/m3			03/03/16 18:58	1
Carbon tetrachloride	ND		13	2.4	ug/m3			03/03/16 18:58	1
Chlorobenzene	ND		9.2	2.3	ug/m3			03/03/16 18:58	1
Chloroethane	ND		5.3	0.92	ug/m3			03/03/16 18:58	1
Chloroform	**4.7**	**J**	9.8	1.9	ug/m3			03/03/16 18:58	1
Chloromethane	ND		10	3.3	ug/m3			03/03/16 18:58	1
cis-1,2-Dichloroethene	ND		7.9	2.4	ug/m3			03/03/16 18:58	1
cis-1,3-Dichloropropene	ND		9.1	3.4	ug/m3			03/03/16 18:58	1
Dichlorodifluoromethane	**12**		9.9	3.4	ug/m3			03/03/16 18:58	1
Ethylbenzene	ND		8.7	3.0	ug/m3			03/03/16 18:58	1
Hexachlorobutadiene	ND		110	8.3	ug/m3			03/03/16 18:58	1
Methylene Chloride	**6.1**	**J B**	17	4.5	ug/m3			03/03/16 18:58	1
m-Xylene & p-Xylene	ND		8.7	5.2	ug/m3			03/03/16 18:58	1
Naphthalene	ND		26	4.7	ug/m3			03/03/16 18:58	1
n-Hexane	**6.7**	**J**	18	1.1	ug/m3			03/03/16 18:58	1
o-Xylene	ND		8.7	2.6	ug/m3			03/03/16 18:58	1
Styrene	ND		8.5	2.5	ug/m3			03/03/16 18:58	1
Tetrachloroethene	**3.8**	**J**	14	2.7	ug/m3			03/03/16 18:58	1
Toluene	**4.6**	**J**	7.5	4.5	ug/m3			03/03/16 18:58	1
trans-1,3-Dichloropropene	ND		9.1	2.2	ug/m3			03/03/16 18:58	1
Trichloroethene	ND		11	1.9	ug/m3			03/03/16 18:58	1
Trichlorofluoromethane	**90**		11	1.3	ug/m3			03/03/16 18:58	1
Vinyl chloride	ND		5.1	1.8	ug/m3			03/03/16 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*03/03/16 18:58*	*1*

Default Detection Limits

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.030	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.16	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.061	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.42	ug/m3	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	0.031	ppb v/v	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	0.24	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.054	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.29	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	1.0	0.098	ppb v/v	TO-15
1,2,4-Trichlorobenzene	7.4	0.73	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.063	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.31	ug/m3	TO-15
1,2-Dibromoethane (EDB)	0.20	0.044	ppb v/v	TO-15
1,2-Dibromoethane (EDB)	1.5	0.34	ug/m3	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	0.032	ppb v/v	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	0.22	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.070	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.42	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.047	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.19	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.052	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.24	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.065	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.32	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.064	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.38	ug/m3	TO-15
2,2,4-Trimethylpentane	0.50	0.039	ppb v/v	TO-15
2,2,4-Trimethylpentane	2.3	0.18	ug/m3	TO-15
2-Butanone (MEK)	1.0	0.20	ppb v/v	TO-15
2-Butanone (MEK)	2.9	0.59	ug/m3	TO-15
Acetone	5.0	1.4	ppb v/v	TO-15
Acetone	12	3.3	ug/m3	TO-15
Benzene	0.20	0.056	ppb v/v	TO-15
Benzene	0.64	0.18	ug/m3	TO-15
Benzyl chloride	0.40	0.078	ppb v/v	TO-15
Benzyl chloride	2.1	0.40	ug/m3	TO-15
Bromomethane	0.20	0.032	ppb v/v	TO-15
Bromomethane	0.78	0.12	ug/m3	TO-15
Carbon disulfide	0.50	0.031	ppb v/v	TO-15
Carbon disulfide	1.6	0.097	ug/m3	TO-15
Carbon tetrachloride	0.20	0.038	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.24	ug/m3	TO-15
Chlorobenzene	0.20	0.049	ppb v/v	TO-15
Chlorobenzene	0.92	0.23	ug/m3	TO-15
Chloroethane	0.20	0.035	ppb v/v	TO-15
Chloroethane	0.53	0.092	ug/m3	TO-15

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Chloroform	0.20	0.038	ppb v/v	TO-15
Chloroform	0.98	0.19	ug/m3	TO-15
Chloromethane	0.50	0.16	ppb v/v	TO-15
Chloromethane	1.0	0.33	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.060	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.24	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.074	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.34	ug/m3	TO-15
Dichlorodifluoromethane	0.20	0.068	ppb v/v	TO-15
Dichlorodifluoromethane	0.99	0.34	ug/m3	TO-15
Ethylbenzene	0.20	0.068	ppb v/v	TO-15
Ethylbenzene	0.87	0.30	ug/m3	TO-15
Hexachlorobutadiene	1.0	0.078	ppb v/v	TO-15
Hexachlorobutadiene	11	0.83	ug/m3	TO-15
Methylene Chloride	0.50	0.13	ppb v/v	TO-15
Methylene Chloride	1.7	0.45	ug/m3	TO-15
m-Xylene & p-Xylene	0.20	0.12	ppb v/v	TO-15
m-Xylene & p-Xylene	0.87	0.52	ug/m3	TO-15
Naphthalene	0.50	0.090	ppb v/v	TO-15
Naphthalene	2.6	0.47	ug/m3	TO-15
n-Hexane	0.50	0.032	ppb v/v	TO-15
n-Hexane	1.8	0.11	ug/m3	TO-15
o-Xylene	0.20	0.061	ppb v/v	TO-15
o-Xylene	0.87	0.26	ug/m3	TO-15
Styrene	0.20	0.058	ppb v/v	TO-15
Styrene	0.85	0.25	ug/m3	TO-15
Tetrachloroethene	0.20	0.040	ppb v/v	TO-15
Tetrachloroethene	1.4	0.27	ug/m3	TO-15
Toluene	0.20	0.12	ppb v/v	TO-15
Toluene	0.75	0.45	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.048	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.22	ug/m3	TO-15
Trichloroethene	0.20	0.036	ppb v/v	TO-15
Trichloroethene	1.1	0.19	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.024	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.13	ug/m3	TO-15
Vinyl chloride	0.20	0.071	ppb v/v	TO-15
Vinyl chloride	0.51	0.18	ug/m3	TO-15

Surrogate Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

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

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-4540-1	SB-3	100								
140-4540-2	SB-6	99								
140-4540-3	SB-7	90								
140-4540-4	FIELD DUPLICATE	102								
LCS 140-4389/1002	Lab Control Sample	83								
LCS 140-4391/1002	Lab Control Sample	115								
MB 140-4389/4	Method Blank	94								
MB 140-4391/5	Method Blank	109								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-4389/4
Matrix: Air
Analysis Batch: 4389

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			03/04/16 13:35	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			03/04/16 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			03/04/16 13:35	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			03/04/16 13:35	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			03/04/16 13:35	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			03/04/16 13:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			03/04/16 13:35	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			03/04/16 13:35	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			03/04/16 13:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			03/04/16 13:35	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			03/04/16 13:35	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			03/04/16 13:35	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			03/04/16 13:35	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			03/04/16 13:35	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			03/04/16 13:35	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			03/04/16 13:35	1
2,2,4-Trimethylpentane	ND		0.50	0.039	ppb v/v			03/04/16 13:35	1
2-Butanone (MEK)	ND		1.0	0.20	ppb v/v			03/04/16 13:35	1
Acetone	ND		5.0	1.4	ppb v/v			03/04/16 13:35	1
Benzene	ND		0.20	0.056	ppb v/v			03/04/16 13:35	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			03/04/16 13:35	1
Bromomethane	ND		0.20	0.032	ppb v/v			03/04/16 13:35	1
Carbon disulfide	ND		0.50	0.031	ppb v/v			03/04/16 13:35	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			03/04/16 13:35	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			03/04/16 13:35	1
Chloroethane	ND		0.20	0.035	ppb v/v			03/04/16 13:35	1
Chloroform	ND		0.20	0.038	ppb v/v			03/04/16 13:35	1
Chloromethane	ND		0.50	0.16	ppb v/v			03/04/16 13:35	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			03/04/16 13:35	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			03/04/16 13:35	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			03/04/16 13:35	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			03/04/16 13:35	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			03/04/16 13:35	1
Methylene Chloride	0.153	J	0.50	0.13	ppb v/v			03/04/16 13:35	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			03/04/16 13:35	1
Naphthalene	ND		0.50	0.090	ppb v/v			03/04/16 13:35	1
n-Hexane	ND		0.50	0.032	ppb v/v			03/04/16 13:35	1
o-Xylene	ND		0.20	0.061	ppb v/v			03/04/16 13:35	1
Styrene	ND		0.20	0.058	ppb v/v			03/04/16 13:35	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			03/04/16 13:35	1
Toluene	ND		0.20	0.12	ppb v/v			03/04/16 13:35	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			03/04/16 13:35	1
Trichloroethene	ND		0.20	0.036	ppb v/v			03/04/16 13:35	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			03/04/16 13:35	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			03/04/16 13:35	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			03/04/16 13:35	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4389/4
Matrix: Air
Analysis Batch: 4389

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			03/04/16 13:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			03/04/16 13:35	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			03/04/16 13:35	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			03/04/16 13:35	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			03/04/16 13:35	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			03/04/16 13:35	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			03/04/16 13:35	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			03/04/16 13:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			03/04/16 13:35	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			03/04/16 13:35	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			03/04/16 13:35	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			03/04/16 13:35	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			03/04/16 13:35	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			03/04/16 13:35	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			03/04/16 13:35	1
2,2,4-Trimethylpentane	ND		2.3	0.18	ug/m3			03/04/16 13:35	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			03/04/16 13:35	1
Acetone	ND		12	3.3	ug/m3			03/04/16 13:35	1
Benzene	ND		0.64	0.18	ug/m3			03/04/16 13:35	1
Benzyl chloride	ND		2.1	0.40	ug/m3			03/04/16 13:35	1
Bromomethane	ND		0.78	0.12	ug/m3			03/04/16 13:35	1
Carbon disulfide	ND		1.6	0.097	ug/m3			03/04/16 13:35	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			03/04/16 13:35	1
Chlorobenzene	ND		0.92	0.23	ug/m3			03/04/16 13:35	1
Chloroethane	ND		0.53	0.092	ug/m3			03/04/16 13:35	1
Chloroform	ND		0.98	0.19	ug/m3			03/04/16 13:35	1
Chloromethane	ND		1.0	0.33	ug/m3			03/04/16 13:35	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			03/04/16 13:35	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			03/04/16 13:35	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			03/04/16 13:35	1
Ethylbenzene	ND		0.87	0.30	ug/m3			03/04/16 13:35	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			03/04/16 13:35	1
Methylene Chloride	0.531	J	1.7	0.45	ug/m3			03/04/16 13:35	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			03/04/16 13:35	1
Naphthalene	ND		2.6	0.47	ug/m3			03/04/16 13:35	1
n-Hexane	ND		1.8	0.11	ug/m3			03/04/16 13:35	1
o-Xylene	ND		0.87	0.26	ug/m3			03/04/16 13:35	1
Styrene	ND		0.85	0.25	ug/m3			03/04/16 13:35	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			03/04/16 13:35	1
Toluene	ND		0.75	0.45	ug/m3			03/04/16 13:35	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			03/04/16 13:35	1
Trichloroethene	ND		1.1	0.19	ug/m3			03/04/16 13:35	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			03/04/16 13:35	1
Vinyl chloride	ND		0.51	0.18	ug/m3			03/04/16 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*		*03/04/16 13:35*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-4389/1002
Matrix: Air
Analysis Batch: 4389

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	1.75		ppb v/v		87	70 - 130
1,1,2,2-Tetrachloroethane	2.00	2.03		ppb v/v		101	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.10		ppb v/v		105	70 - 130
1,1,2-Trichloroethane	2.00	1.87		ppb v/v		94	70 - 130
1,1-Dichloroethane	2.00	1.66		ppb v/v		83	70 - 130
1,1-Dichloroethene	2.00	2.31		ppb v/v		115	70 - 130
1,2,4-Trichlorobenzene	2.00	2.23		ppb v/v		112	60 - 140
1,2,4-Trimethylbenzene	2.00	2.05		ppb v/v		103	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.93		ppb v/v		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.32		ppb v/v		116	60 - 140
1,2-Dichlorobenzene	2.00	2.14		ppb v/v		107	70 - 130
1,2-Dichloroethane	2.00	1.57		ppb v/v		78	70 - 130
1,2-Dichloropropane	2.00	1.74		ppb v/v		87	70 - 130
1,3,5-Trimethylbenzene	2.00	2.12		ppb v/v		106	70 - 130
1,3-Dichlorobenzene	2.00	2.12		ppb v/v		106	70 - 130
1,4-Dichlorobenzene	2.00	2.16		ppb v/v		108	70 - 130
2,2,4-Trimethylpentane	2.00	1.82		ppb v/v		91	70 - 130
2-Butanone (MEK)	2.00	1.91		ppb v/v		96	60 - 140
Acetone	6.00	5.72		ppb v/v		95	60 - 140
Benzene	2.00	1.78		ppb v/v		89	70 - 130
Benzyl chloride	2.00	2.21		ppb v/v		111	70 - 130
Bromomethane	2.00	2.37		ppb v/v		118	70 - 130
Carbon disulfide	2.00	2.31		ppb v/v		116	70 - 130
Carbon tetrachloride	2.00	1.95		ppb v/v		98	70 - 130
Chlorobenzene	2.00	1.96		ppb v/v		98	70 - 130
Chloroethane	2.00	2.20		ppb v/v		110	70 - 130
Chloroform	2.00	1.78		ppb v/v		89	70 - 130
Chloromethane	2.00	2.20		ppb v/v		110	60 - 140
cis-1,2-Dichloroethene	2.00	1.93		ppb v/v		96	70 - 130
cis-1,3-Dichloropropene	2.00	1.87		ppb v/v		93	70 - 130
Dichlorodifluoromethane	2.00	2.15		ppb v/v		107	60 - 140
Ethylbenzene	2.00	2.02		ppb v/v		101	70 - 130
Hexachlorobutadiene	2.00	2.44		ppb v/v		122	60 - 140
Methylene Chloride	2.00	2.03		ppb v/v		102	70 - 130
m-Xylene & p-Xylene	4.00	4.04		ppb v/v		101	70 - 130
Naphthalene	2.00	2.18		ppb v/v		109	60 - 140
n-Hexane	2.00	1.83		ppb v/v		92	70 - 130
o-Xylene	2.00	2.01		ppb v/v		100	70 - 130
Styrene	2.00	2.02		ppb v/v		101	70 - 130
Tetrachloroethene	2.00	1.91		ppb v/v		95	70 - 130
Toluene	2.00	1.97		ppb v/v		98	70 - 130
trans-1,3-Dichloropropene	2.00	1.83		ppb v/v		91	70 - 130
Trichloroethene	2.00	2.00		ppb v/v		100	70 - 130
Trichlorofluoromethane	2.00	2.12		ppb v/v		106	60 - 140
Vinyl chloride	2.00	2.14		ppb v/v		107	70 - 130

QC Sample Results

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	9.53		ug/m3		87	70 - 130
1,1,2,2-Tetrachloroethane	14	13.9		ug/m3		101	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	15	16.1		ug/m3		105	70 - 130
1,1,2-Trichloroethane	11	10.2		ug/m3		94	70 - 130
1,1-Dichloroethane	8.1	6.70		ug/m3		83	70 - 130
1,1-Dichloroethene	7.9	9.15		ug/m3		115	70 - 130
1,2,4-Trichlorobenzene	15	16.6		ug/m3		112	60 - 140
1,2,4-Trimethylbenzene	9.8	10.1		ug/m3		103	70 - 130
1,2-Dibromoethane (EDB)	15	14.8		ug/m3		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	16.2		ug/m3		116	60 - 140
1,2-Dichlorobenzene	12	12.9		ug/m3		107	70 - 130
1,2-Dichloroethane	8.1	6.36		ug/m3		78	70 - 130
1,2-Dichloropropane	9.2	8.04		ug/m3		87	70 - 130
1,3,5-Trimethylbenzene	9.8	10.4		ug/m3		106	70 - 130
1,3-Dichlorobenzene	12	12.7		ug/m3		106	70 - 130
1,4-Dichlorobenzene	12	13.0		ug/m3		108	70 - 130
2,2,4-Trimethylpentane	9.3	8.51		ug/m3		91	70 - 130
2-Butanone (MEK)	5.9	5.64		ug/m3		96	60 - 140
Acetone	14	13.6		ug/m3		95	60 - 140
Benzene	6.4	5.68		ug/m3		89	70 - 130
Benzyl chloride	10	11.5		ug/m3		111	70 - 130
Bromomethane	7.8	9.21		ug/m3		118	70 - 130
Carbon disulfide	6.2	7.21		ug/m3		116	70 - 130
Carbon tetrachloride	13	12.3		ug/m3		98	70 - 130
Chlorobenzene	9.2	9.01		ug/m3		98	70 - 130
Chloroethane	5.3	5.80		ug/m3		110	70 - 130
Chloroform	9.8	8.68		ug/m3		89	70 - 130
Chloromethane	4.1	4.54		ug/m3		110	60 - 140
cis-1,2-Dichloroethene	7.9	7.64		ug/m3		96	70 - 130
cis-1,3-Dichloropropene	9.1	8.47		ug/m3		93	70 - 130
Dichlorodifluoromethane	9.9	10.6		ug/m3		107	60 - 140
Ethylbenzene	8.7	8.79		ug/m3		101	70 - 130
Hexachlorobutadiene	21	26.0		ug/m3		122	60 - 140
Methylene Chloride	7.0	7.06		ug/m3		102	70 - 130
m-Xylene & p-Xylene	17	17.6		ug/m3		101	70 - 130
Naphthalene	10	11.4		ug/m3		109	60 - 140
n-Hexane	7.1	6.46		ug/m3		92	70 - 130
o-Xylene	8.7	8.73		ug/m3		100	70 - 130
Styrene	8.5	8.60		ug/m3		101	70 - 130
Tetrachloroethene	14	13.0		ug/m3		95	70 - 130
Toluene	7.5	7.42		ug/m3		98	70 - 130
trans-1,3-Dichloropropene	9.1	8.29		ug/m3		91	70 - 130
Trichloroethene	11	10.8		ug/m3		100	70 - 130
Trichlorofluoromethane	11	11.9		ug/m3		106	60 - 140
Vinyl chloride	5.1	5.47		ug/m3		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*60 - 140*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4391/5
Matrix: Air
Analysis Batch: 4391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.030	ppb v/v			03/03/16 13:06	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.061	ppb v/v			03/03/16 13:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20	0.031	ppb v/v			03/03/16 13:06	1
1,1,2-Trichloroethane	ND		0.20	0.054	ppb v/v			03/03/16 13:06	1
1,1-Dichloroethane	ND		0.20	0.026	ppb v/v			03/03/16 13:06	1
1,1-Dichloroethene	ND		0.20	0.034	ppb v/v			03/03/16 13:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.098	ppb v/v			03/03/16 13:06	1
1,2,4-Trimethylbenzene	ND		0.20	0.063	ppb v/v			03/03/16 13:06	1
1,2-Dibromoethane (EDB)	ND		0.20	0.044	ppb v/v			03/03/16 13:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20	0.032	ppb v/v			03/03/16 13:06	1
1,2-Dichlorobenzene	ND		0.20	0.070	ppb v/v			03/03/16 13:06	1
1,2-Dichloroethane	ND		0.20	0.047	ppb v/v			03/03/16 13:06	1
1,2-Dichloropropane	ND		0.20	0.052	ppb v/v			03/03/16 13:06	1
1,3,5-Trimethylbenzene	ND		0.20	0.065	ppb v/v			03/03/16 13:06	1
1,3-Dichlorobenzene	ND		0.20	0.065	ppb v/v			03/03/16 13:06	1
1,4-Dichlorobenzene	ND		0.20	0.064	ppb v/v			03/03/16 13:06	1
2,2,4-Trimethylpentane	ND		0.50	0.039	ppb v/v			03/03/16 13:06	1
2-Butanone (MEK)	ND		1.0	0.20	ppb v/v			03/03/16 13:06	1
Acetone	ND		5.0	1.4	ppb v/v			03/03/16 13:06	1
Benzene	ND		0.20	0.056	ppb v/v			03/03/16 13:06	1
Benzyl chloride	ND		0.40	0.078	ppb v/v			03/03/16 13:06	1
Bromomethane	ND		0.20	0.032	ppb v/v			03/03/16 13:06	1
Carbon disulfide	ND		0.50	0.031	ppb v/v			03/03/16 13:06	1
Carbon tetrachloride	ND		0.20	0.038	ppb v/v			03/03/16 13:06	1
Chlorobenzene	ND		0.20	0.049	ppb v/v			03/03/16 13:06	1
Chloroethane	ND		0.20	0.035	ppb v/v			03/03/16 13:06	1
Chloroform	ND		0.20	0.038	ppb v/v			03/03/16 13:06	1
Chloromethane	ND		0.50	0.16	ppb v/v			03/03/16 13:06	1
cis-1,2-Dichloroethene	ND		0.20	0.060	ppb v/v			03/03/16 13:06	1
cis-1,3-Dichloropropene	ND		0.20	0.074	ppb v/v			03/03/16 13:06	1
Dichlorodifluoromethane	ND		0.20	0.068	ppb v/v			03/03/16 13:06	1
Ethylbenzene	ND		0.20	0.068	ppb v/v			03/03/16 13:06	1
Hexachlorobutadiene	ND		1.0	0.078	ppb v/v			03/03/16 13:06	1
Methylene Chloride	0.155	J	0.50	0.13	ppb v/v			03/03/16 13:06	1
m-Xylene & p-Xylene	ND		0.20	0.12	ppb v/v			03/03/16 13:06	1
Naphthalene	ND		0.50	0.090	ppb v/v			03/03/16 13:06	1
n-Hexane	ND		0.50	0.032	ppb v/v			03/03/16 13:06	1
o-Xylene	ND		0.20	0.061	ppb v/v			03/03/16 13:06	1
Styrene	ND		0.20	0.058	ppb v/v			03/03/16 13:06	1
Tetrachloroethene	ND		0.20	0.040	ppb v/v			03/03/16 13:06	1
Toluene	ND		0.20	0.12	ppb v/v			03/03/16 13:06	1
trans-1,3-Dichloropropene	ND		0.20	0.048	ppb v/v			03/03/16 13:06	1
Trichloroethene	ND		0.20	0.036	ppb v/v			03/03/16 13:06	1
Trichlorofluoromethane	ND		0.20	0.024	ppb v/v			03/03/16 13:06	1
Vinyl chloride	ND		0.20	0.071	ppb v/v			03/03/16 13:06	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			03/03/16 13:06	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-4391/5
Matrix: Air
Analysis Batch: 4391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			03/03/16 13:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			03/03/16 13:06	1
1,1,2-Trichloroethane	ND		1.1	0.29	ug/m3			03/03/16 13:06	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			03/03/16 13:06	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			03/03/16 13:06	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			03/03/16 13:06	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			03/03/16 13:06	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			03/03/16 13:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			03/03/16 13:06	1
1,2-Dichlorobenzene	ND		1.2	0.42	ug/m3			03/03/16 13:06	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			03/03/16 13:06	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			03/03/16 13:06	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			03/03/16 13:06	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			03/03/16 13:06	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			03/03/16 13:06	1
2,2,4-Trimethylpentane	ND		2.3	0.18	ug/m3			03/03/16 13:06	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			03/03/16 13:06	1
Acetone	ND		12	3.3	ug/m3			03/03/16 13:06	1
Benzene	ND		0.64	0.18	ug/m3			03/03/16 13:06	1
Benzyl chloride	ND		2.1	0.40	ug/m3			03/03/16 13:06	1
Bromomethane	ND		0.78	0.12	ug/m3			03/03/16 13:06	1
Carbon disulfide	ND		1.6	0.097	ug/m3			03/03/16 13:06	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			03/03/16 13:06	1
Chlorobenzene	ND		0.92	0.23	ug/m3			03/03/16 13:06	1
Chloroethane	ND		0.53	0.092	ug/m3			03/03/16 13:06	1
Chloroform	ND		0.98	0.19	ug/m3			03/03/16 13:06	1
Chloromethane	ND		1.0	0.33	ug/m3			03/03/16 13:06	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			03/03/16 13:06	1
cis-1,3-Dichloropropene	ND		0.91	0.34	ug/m3			03/03/16 13:06	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			03/03/16 13:06	1
Ethylbenzene	ND		0.87	0.30	ug/m3			03/03/16 13:06	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			03/03/16 13:06	1
Methylene Chloride	0.539	J	1.7	0.45	ug/m3			03/03/16 13:06	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			03/03/16 13:06	1
Naphthalene	ND		2.6	0.47	ug/m3			03/03/16 13:06	1
n-Hexane	ND		1.8	0.11	ug/m3			03/03/16 13:06	1
o-Xylene	ND		0.87	0.26	ug/m3			03/03/16 13:06	1
Styrene	ND		0.85	0.25	ug/m3			03/03/16 13:06	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			03/03/16 13:06	1
Toluene	ND		0.75	0.45	ug/m3			03/03/16 13:06	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			03/03/16 13:06	1
Trichloroethene	ND		1.1	0.19	ug/m3			03/03/16 13:06	1
Trichlorofluoromethane	ND		1.1	0.13	ug/m3			03/03/16 13:06	1
Vinyl chloride	ND		0.51	0.18	ug/m3			03/03/16 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*03/03/16 13:06*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-4391/1002
Matrix: Air
Analysis Batch: 4391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.16		ppb v/v		108	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.60		ppb v/v		80	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	1.83		ppb v/v		92	70 - 130
1,1,2-Trichloroethane	2.00	1.67		ppb v/v		83	70 - 130
1,1-Dichloroethane	2.00	1.84		ppb v/v		92	70 - 130
1,1-Dichloroethene	2.00	1.66		ppb v/v		83	70 - 130
1,2,4-Trichlorobenzene	2.00	1.53		ppb v/v		77	60 - 140
1,2,4-Trimethylbenzene	2.00	1.69		ppb v/v		84	70 - 130
1,2-Dibromoethane (EDB)	2.00	1.76		ppb v/v		88	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	1.97		ppb v/v		98	60 - 140
1,2-Dichlorobenzene	2.00	1.52		ppb v/v		76	70 - 130
1,2-Dichloroethane	2.00	2.05		ppb v/v		103	70 - 130
1,2-Dichloropropane	2.00	1.71		ppb v/v		85	70 - 130
1,3,5-Trimethylbenzene	2.00	1.57		ppb v/v		78	70 - 130
1,3-Dichlorobenzene	2.00	1.54		ppb v/v		77	70 - 130
1,4-Dichlorobenzene	2.00	1.54		ppb v/v		77	70 - 130
2,2,4-Trimethylpentane	2.00	1.71		ppb v/v		86	70 - 130
2-Butanone (MEK)	2.00	1.57		ppb v/v		79	60 - 140
Acetone	6.00	5.05		ppb v/v		84	60 - 140
Benzene	2.00	1.74		ppb v/v		87	70 - 130
Benzyl chloride	2.00	1.78		ppb v/v		89	70 - 130
Bromomethane	2.00	1.78		ppb v/v		89	70 - 130
Carbon disulfide	2.00	1.69		ppb v/v		84	70 - 130
Carbon tetrachloride	2.00	2.29		ppb v/v		114	70 - 130
Chlorobenzene	2.00	1.68		ppb v/v		84	70 - 130
Chloroethane	2.00	1.73		ppb v/v		86	70 - 130
Chloroform	2.00	2.01		ppb v/v		101	70 - 130
Chloromethane	2.00	1.59		ppb v/v		80	60 - 140
cis-1,2-Dichloroethene	2.00	1.78		ppb v/v		89	70 - 130
cis-1,3-Dichloropropene	2.00	1.94		ppb v/v		97	70 - 130
Dichlorodifluoromethane	2.00	2.24		ppb v/v		112	60 - 140
Ethylbenzene	2.00	1.71		ppb v/v		85	70 - 130
Hexachlorobutadiene	2.00	1.51		ppb v/v		76	60 - 140
Methylene Chloride	2.00	1.57		ppb v/v		79	70 - 130
m-Xylene & p-Xylene	4.00	3.56		ppb v/v		89	70 - 130
Naphthalene	2.00	1.81		ppb v/v		90	60 - 140
n-Hexane	2.00	1.78		ppb v/v		89	70 - 130
o-Xylene	2.00	1.70		ppb v/v		85	70 - 130
Styrene	2.00	1.71		ppb v/v		85	70 - 130
Tetrachloroethene	2.00	1.82		ppb v/v		91	70 - 130
Toluene	2.00	1.71		ppb v/v		86	70 - 130
trans-1,3-Dichloropropene	2.00	1.86		ppb v/v		93	70 - 130
Trichloroethene	2.00	1.70		ppb v/v		85	70 - 130
Trichlorofluoromethane	2.00	2.44		ppb v/v		122	60 - 140
Vinyl chloride	2.00	1.79		ppb v/v		90	70 - 130

QC Sample Results

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	11.8		ug/m3		108	70 - 130
1,1,2,2-Tetrachloroethane	14	11.0		ug/m3		80	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	15	14.0		ug/m3		92	70 - 130
1,1,2-Trichloroethane	11	9.09		ug/m3		83	70 - 130
1,1-Dichloroethane	8.1	7.43		ug/m3		92	70 - 130
1,1-Dichloroethene	7.9	6.58		ug/m3		83	70 - 130
1,2,4-Trichlorobenzene	15	11.4		ug/m3		77	60 - 140
1,2,4-Trimethylbenzene	9.8	8.28		ug/m3		84	70 - 130
1,2-Dibromoethane (EDB)	15	13.5		ug/m3		88	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	13.7		ug/m3		98	60 - 140
1,2-Dichlorobenzene	12	9.14		ug/m3		76	70 - 130
1,2-Dichloroethane	8.1	8.31		ug/m3		103	70 - 130
1,2-Dichloropropane	9.2	7.90		ug/m3		85	70 - 130
1,3,5-Trimethylbenzene	9.8	7.71		ug/m3		78	70 - 130
1,3-Dichlorobenzene	12	9.26		ug/m3		77	70 - 130
1,4-Dichlorobenzene	12	9.25		ug/m3		77	70 - 130
2,2,4-Trimethylpentane	9.3	7.99		ug/m3		86	70 - 130
2-Butanone (MEK)	5.9	4.64		ug/m3		79	60 - 140
Acetone	14	12.0		ug/m3		84	60 - 140
Benzene	6.4	5.56		ug/m3		87	70 - 130
Benzyl chloride	10	9.22		ug/m3		89	70 - 130
Bromomethane	7.8	6.90		ug/m3		89	70 - 130
Carbon disulfide	6.2	5.26		ug/m3		84	70 - 130
Carbon tetrachloride	13	14.4		ug/m3		114	70 - 130
Chlorobenzene	9.2	7.73		ug/m3		84	70 - 130
Chloroethane	5.3	4.55		ug/m3		86	70 - 130
Chloroform	9.8	9.82		ug/m3		101	70 - 130
Chloromethane	4.1	3.29		ug/m3		80	60 - 140
cis-1,2-Dichloroethene	7.9	7.06		ug/m3		89	70 - 130
cis-1,3-Dichloropropene	9.1	8.82		ug/m3		97	70 - 130
Dichlorodifluoromethane	9.9	11.1		ug/m3		112	60 - 140
Ethylbenzene	8.7	7.41		ug/m3		85	70 - 130
Hexachlorobutadiene	21	16.1		ug/m3		76	60 - 140
Methylene Chloride	6.9	5.46		ug/m3		79	70 - 130
m-Xylene & p-Xylene	17	15.4		ug/m3		89	70 - 130
Naphthalene	10	9.49		ug/m3		90	60 - 140
n-Hexane	7.0	6.26		ug/m3		89	70 - 130
o-Xylene	8.7	7.38		ug/m3		85	70 - 130
Styrene	8.5	7.27		ug/m3		85	70 - 130
Tetrachloroethene	14	12.4		ug/m3		91	70 - 130
Toluene	7.5	6.46		ug/m3		86	70 - 130
trans-1,3-Dichloropropene	9.1	8.42		ug/m3		93	70 - 130
Trichloroethene	11	9.12		ug/m3		85	70 - 130
Trichlorofluoromethane	11	13.7		ug/m3		122	60 - 140
Vinyl chloride	5.1	4.58		ug/m3		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*

QC Association Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Air - GC/MS VOA

Analysis Batch: 4389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-4540-3	SB-7	Total/NA	Air	TO-15	
LCS 140-4389/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-4389/4	Method Blank	Total/NA	Air	TO-15	

Analysis Batch: 4391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-4540-1	SB-3	Total/NA	Air	TO-15	
140-4540-2	SB-6	Total/NA	Air	TO-15	
140-4540-4	FIELD DUPLICATE	Total/NA	Air	TO-15	
LCS 140-4391/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-4391/5	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: SB-3
Date Collected: 02/26/16 13:20
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 16:53	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: SB-6
Date Collected: 02/26/16 13:50
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 17:35	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: SB-7
Date Collected: 02/26/16 13:40
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		3.47	69.4 mL	500 mL	4389	03/04/16 15:10	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: FIELD DUPLICATE
Date Collected: 02/26/16 00:00
Date Received: 03/02/16 12:40

Lab Sample ID: 140-4540-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	4391	03/03/16 18:58	HMT	TAL KNX
	Instrument ID: MG									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-4389/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	4389	03/04/16 09:40	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-4391/1002
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	4391	03/03/16 10:08	HMT	TAL KNX
	Instrument ID: MG									

Lab Chronicle

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Client Sample ID: Method Blank — Lab Sample ID: MB 140-4389/4

Date Collected: N/A
Date Received: N/A
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	4389	03/04/16 13:35	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-4391/5

Date Collected: N/A
Date Received: N/A
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	4391	03/03/16 13:06	HMT	TAL KNX
	Instrument ID: MG									

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Laboratory: TestAmerica Knoxville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-16-16
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-16 *
Connecticut	State Program	1	PH-0223	09-30-17
Florida	NELAP	4	E87177	06-30-16
Georgia	State Program	4	906	04-13-17
Hawaii	State Program	9	N/A	04-13-16
Kansas	NELAP	7	E-10349	05-31-16
Kentucky (DW)	State Program	4	90101	12-31-16
L-A-B	DoD ELAP		L2311	02-13-19
Louisiana	NELAP	6	83979	06-30-16
Louisiana (DW)	NELAP	6	LA110001	12-31-16
Maryland	State Program	3	277	03-31-17
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-16
New Jersey	NELAP	2	TN001	06-30-16
New York	NELAP	2	10781	03-31-16
North Carolina (DW)	State Program	4	21705	07-31-16
North Carolina (WW/SW)	State Program	4	64	12-31-16
Ohio VAP	State Program	5	CL0059	01-16-17
Oklahoma	State Program	6	9415	08-31-16
Pennsylvania	NELAP	3	68-00576	12-31-16
South Carolina	State Program	4	84001	06-30-16
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-15-8	08-31-16
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-16
Virginia	NELAP	3	460176	09-14-16
Washington	State Program	10	C593	01-19-17
West Virginia (DW)	State Program	3	9955C	12-31-16
West Virginia DEP	State Program	3	345	04-30-16
Wisconsin	State Program	5	998044300	08-31-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Alfred Benesch & Company
Project/Site: Dorothy Patch

TestAmerica Job ID: 140-4540-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-4540-1	SB-3	Air	02/26/16 13:20	03/02/16 12:40
140-4540-2	SB-6	Air	02/26/16 13:50	03/02/16 12:40
140-4540-3	SB-7	Air	02/26/16 13:40	03/02/16 12:40
140-4540-4	FIELD DUPLICATE	Air	02/26/16 00:00	03/02/16 12:40

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: BRIAN FETTIN	Sampled By: RON PROCHASKA	1 of 1 COCs
Company: ALFRED BENESCH	Phone:		
Address: 14748 WEST CENTER RD.	Site Contact:		
City/State/Zip OMAHA, NE 68144	TAL Contact: RYAN HENRY		
Phone: 402-333-5792			
FAX:			
Project Name: DOROTHY PATACH	Analysis Turnaround Time		
Site/location: 4903 S. 20TH ST.	Standard (Specify) X		
PO #	Rush (Specify)		

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	TO-14A	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)
SB-3	2-26-16	1320	—	28.5	2.0		10759	X									X		
SB-6	2-26-16	1350	—	28.0	2.0		09830	X									X		
SB-7	2-26-16	1340	—	28.5	2.0		09633	X									X		
FIELD DUPLICATE	2-26-16	—	—	28.5	2.0		09668	X									X		

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

CUSTODY SEALS INTACT
ARRIVED AT AMBIENT TEMP
BKD 3-2-16
1 COOLER UPS# 1Z6319840240190137

4 CANS / 0 FLOWS / 1 T

Special Instructions/QC Requirements & Comments:

140-4540 Chain of Custody

Canisters Shipped by: UPS	Date/Time: 2-29-16/1600	Canisters Received by:
Samples Relinquished by:	Date/Time: 2-29-16/1600	Received by: 3-2-16 12:40
Relinquished by:	Date/Time:	Received by:

Login Sample Receipt Checklist

Client: Alfred Benesch & Company

Job Number: 140-4540-1

Login Number: 4540
List Number: 1
Creator: Dameron, Bryan K

List Source: TestAmerica Knoxville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	CHECKED IN LAB
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
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	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G1
Date: 3/2/2016

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
AFB	140-4540-a-1	10759	4419	B	1	-2.5	1730	
AFB	140-4540-a-2	09830	4419	B	1	-2.1	1731	
AFB	140-4540-a-3	09633	4419	B	1	-2.4	1732	
AFB	140-4540-a-4	09668	4419	B	1	-2.7	1733	