



March 3, 2020

Mr. Todd Davis
Site Assessment Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

**Subject: Phase II Targeted Brownfields Assessment
Oak Street City Hall Site
Poplar Bluff, Butler County, Missouri
U.S. EPA Region 7 START 5, Contract No. 68HE0719D0001
Task Order No. 19F0101.005
Task Monitors: Todd Davis, Site Assessment Manager**

Dear Mr. Davis:

Tetra Tech, Inc. (Tetra Tech) is submitting the attached Phase II Targeted Brownfields Assessment report regarding the Oak Street City Hall site. If you have any questions or comments pertaining to this submittal, please call the Project Manager at (417) 257-9977.

Sincerely,

A handwritten signature in black ink, appearing to read 'M Handley'.

Michelle Handley
START Project Manager

A handwritten signature in blue ink, appearing to read 'Ted Faile'.

Ted Faile, PG, CHMM
START Program Manager

Enclosures

cc: Randy Brown, EPA On-Scene Coordinator
Whitney Bynum, EPA Brownfields and Land Revitalization Branch

PHASE II TARGETED BROWNFIELDS ASSESSMENT

**OAK STREET CITY HALL SITE
POPLAR BLUFF, MISSOURI**

**Superfund Technical Assessment and Response Team (START) 5 Contract
Contract No. 68HE0719D0001, Task Order 19F0101.005**

Prepared For:

U.S. Environmental Protection Agency
Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

March 3, 2020

Prepared By:

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), under the Superfund Technical Assessment and Response Team (START) Contract (68HE0719D0001), tasked Tetra Tech, Inc. (Tetra Tech) to conduct a Phase II Targeted Brownfields Assessment (TBA) of the Oak Street City Hall site (the site), at 101 Oak Street, Poplar Bluff, Missouri (see Appendix A, Figures 1 and 2). The site encompasses approximately 1.13 acres and is developed with an approximately 35,932-square-foot former hospital building, a 2,970-square-foot warehouse, a communications tower, and a paved parking area. The site is currently vacant.

The primary purpose of this investigation was to assess potential impacts on human health and the environment by hazardous substances that may have been released to soil and groundwater. The scope of the TBA included surface and subsurface soil and groundwater sampling to confirm or eliminate recognized environmental conditions (REC) identified during a Phase I Environmental Site Assessment (ESA) (SCS Engineers 2018). This TBA also included a hazardous materials survey of site structures for presence of asbestos-containing material (ACM). Suspected ACM was be sampled to quantify asbestos in the material. As well, START inspected the structure for presence of polychlorinated biphenyls (PCB)-containing caulk, and screened paint-covered surfaces using an x-ray fluorescence (XRF) spectrometer to assess presence of lead-based paint (LBP). Additionally, START catalogued other items potentially containing hazardous materials such as mercury, PCBs, radionuclides, or chlorofluorocarbons (CFC). The Phase II TBA was consistent with ASTM International (ASTM) Standard E1903-11 for Phase II ESAs, and otherwise complied with EPA's "All Appropriate Inquiries" Rule (AAI Rule) (40 *Code of Federal Regulations* [CFR] Part 312).

2.0 SITE BACKGROUND AND DESCRIPTION

This section briefly describes the site (physical setting, site history and land use, and adjacent land use), and summarizes previous assessments.

2.1 PHYSICAL SETTING

Dominant soils in the area are Loring silt loam, Clarksville-Scholten complex, and Calhoun silt loam. The Loring series consists of moderately well-drained silt loam with a fragipan, and is formed in loess. Slopes range from 0 to 20 percent (U.S. Department of Agriculture [USDA] 2013). The Clarksville series consists of very deep, somewhat excessively drained soils formed in hillslope sediments and underlying clayey residuum from cherty dolomite or limestone on steep side slopes or narrow ridgetops. Slopes range from 1 to 70 percent. The top inch of this series consists of partly decomposed organic matter, and the underlying 17 inches consists of gravelly silt loam with very gravelly loam beneath, extending to approximately 29 inches below ground surface (bgs), underlain by extremely gravelly clay loam to 41 inches bgs, then by very gravelly clay loam to 52 inches bgs, followed by cobbly clay to 60 inches bgs (USDA 2004). The Scholten series consists of very deep, moderately well-drained soils with a fragipan, formed in colluvium and underlying residuum of weathered cherty limestone on uplands. Slopes range from 1 to 45 percent. The upper 33 inches of these soils consists of gravelly and very gravelly silt loam with gravelly clay beneath, extending to approximately 60 inches bgs (USDA 2006). The Calhoun series consists of level and poorly drained soils with slow permeability. These soils are formed in loess or loess-like material and have low sand content. They are largely found on low-elevation Pleistocene-age terraces, and to a lesser extent on floodplains. Slopes range from 0 to 1 percent. The upper 17 inches of these soils consists of silt loam with silty clay loam beneath, extending to approximately 30 inches bgs, underlain by silt loam to 72 inches bgs (USDA 2018).

Butler County is bisected by the Salem Plateau and Southeast Lowlands Groundwater Provinces. Poplar Bluff is within the Salem Plateau Groundwater Province, which consists of two main aquifers: (1) the deeper St. Francois aquifer, which, due to its depth and low hydraulic conductivity, is not widely accessed by wells in the area; and (2) the shallower Ozark aquifer, the more commonly used aquifer, characterized by high-yielding dolomite units (Missouri Department of Natural Resources [MDNR] 2019).

During the Phase I TBA, three registered water wells were identified within 0.5 mile of the site via searches of federal, state, and USGS database listings. Water levels were not reported with any of these listings. The Phase I ESA report included no information regarding groundwater flow direction. In the absence of site-specific data or other indicators, direction of groundwater flow may be inferred from the

regional topographic gradient. Therefore, groundwater flow at the site is assumed toward the southeast (SCS Engineers 2018).

2.2 SITE LOCATION AND HISTORY

The site is at 101 Oak Street in Poplar Bluff, Missouri, and is depicted on the Poplar Bluff, Missouri, U.S. Geological Survey (USGS) 7.5-minute topographic series map (USGS 2015) (see Appendix B, Figure 1). Coordinates at the approximate center of the site are 36.757705 degrees north latitude and 90.391054 degrees west longitude.

The site is in a mixed-use commercial and residential area of Poplar Bluff, encompasses approximately 1.13 acres, and is developed with an approximately 35,932-square-foot former hospital building, a 2,970-square-foot warehouse, a communications tower, and a paved parking area. Figure 2 in Appendix B illustrates the location and boundaries of the site. The site is surrounded by commercial, municipal, and residential properties. The site is currently vacant.

Historical documentation and information provided by the key site manager indicate that the site had been used as a hospital from at least as early as 1939 (according to the City Directory from that year) until 1975. No information could be found regarding use of the property after that date until 1986, when the City Directory listed Poplar Bluff Professional Beauty Academy, a neurological center, a physician's office, and Muzac Communication Systems occupying the address. The City purchased the site in 1990 and thereafter utilized it as the location of City Hall, the police department, and municipal court until recent deteriorating conditions of the buildings forced relocations.

2.3 ADJOINING PROPERTY

The 1.13-acre site is in the older central business district that sits along the bluff above the Black River. Figure 2 in Appendix A illustrates the location and boundaries of the site. The site encompasses the entire block and is bounded north by West Elm Street, east by Rio Vista Drive, south by Oak Street, and west by North 2nd Street.

Surrounding properties are as follows: to the north are residential properties, to the west is the Poplar Bluff Public Library, to the south is a parking garage owned by the City, and to the east are railroad tracks with the Black River beyond.

2.4 PREVIOUS INVESTIGATIONS

In July 2018, SCS Engineers conducted a Phase I ESA of the site on behalf of MDNR and identified one REC: three pad-mounted transformers lacking labeling indicating absence of PCBs, posing possibility that the transformers contained PCBs. The Phase I ESA report also recommended a hazardous materials survey based on the age of the buildings and observations during the site reconnaissance (SCS Engineers 2018).

3.0 SAMPLING ACTIVITIES

Section 3.0 discusses Phase II TBA field sampling and associated quality assurance (QA)/quality control (QC) activities.

START members Michelle Handley and Nick Wiederholt, as well as subcontractor Below Ground Surface, Inc., conducted soil and groundwater sampling on October 16 and 17, 2019. Sample locations are depicted on Figure 2 in Appendix A. Photographic documentation is in Appendix B. A copy of the logbook with documented site activities and notes is in Appendix C. START members Megan Sawyer and Zach Usher performed a hazardous materials survey during the week of November 4, 2019.

Unless otherwise stated in Section 3.7, activities proceeded as specified in a site-specific Quality Assurance Project Plan (QAPP) for the Phase II TBA developed by START and submitted to EPA in October 2019 (Tetra Tech 2019).

3.1 SOIL SAMPLING

Tetra Tech subcontractor Below Ground Surface advanced eight direct-push technology (DPT) soil borings to refusal (approximately 13 to 39 feet bgs) using a track-mounted drilling rig. Borings were advanced on all sides of the property and near the three pad-mounted transformers at the site. Continuous soil samples were collected at 4- to 5-foot depth intervals, and were screened by use of a photoionization detector (PID). At each boring location, two samples were collected for laboratory analysis. One sample at each boring was collected within the 0- to 3-foot bgs interval, and one sample was collected at a deeper interval. Samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), Resource Conservation and Recovery Act (RCRA) metals (not including mercury), total petroleum hydrocarbons (TPH) – diesel range organics (DRO), TPH – gasoline range organics (GRO), TPH – oil range organics (ORO), and PCBs. Duplicate samples were collected at boring locations SB04 and SB05 to be used as a QA/QC measure of total method precision. Table 1 lists boring location information including sample depths and analyses.

TABLE 1
SOIL SAMPLE SUMMARY
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI

Boring Name	Sampling Intervals (feet bgs)	Latitude (°N)	Longitude (°W)
SB01-01-03	1 - 3	36.757670	90.390484
SB01-21-23	21 - 23		
SB02-01-03	1 - 3	36.757670	90.390598
SB02-27-29	27 - 29		
SB03-01-03	1 - 3	36.757556	90.390581
SB03-18-20	18 - 20		
SB04-01-03	1 – 3*	36.757267	90.390725
SB04-23-25	23 - 25		
SB05-01-03	1 – 3*	36.757411	90.390776
SB05-13-15	13 - 15		
SB06-01-03	1 - 3	36.758020	90.390977
SB06-11-13	11 - 13		
SB07-01-03	1 - 3	36.758121	90.391394
SB07-37-39	37 - 39		
SB08-01-03	1 - 3	36.757879	90.391454
SB08-11-13	11 - 13		

Notes:

All sampling occurred on October 16 and 17, 2019.

Asterisk indicates duplicate samples were collected at the depth interval.

bgs Below ground surface

3.2 GROUNDWATER SAMPLING

Below Ground Surface installed temporary wells at SB01 and SB04. The temporary well at SB01 remained dry after sitting overnight, so no groundwater sample was collected there. At SB04, START collected a groundwater sample and a field duplicate sample for laboratory analysis. Samples were analyzed for VOCs, SVOCs, total and dissolved RCRA metals (not including mercury), TPH –DRO, TPH –GRO, TPH –ORO, and PCBs.

3.3 HAZARDOUS MATERIALS SURVEY

Details of the hazardous materials survey and analytical protocols are in the Targeted Brownfields Assessment Hazardous Materials Survey Report, a copy of which is in Appendix E.

3.4 QUALITY CONTROL SAMPLES

In addition to the field duplicate samples cited above, Tetra Tech collected other QC samples. To evaluate effectiveness of decontamination procedures on the Geoprobe sampling equipment, an equipment rinsate sample (ER) was collected. To assess any field- or laboratory-introduced contamination, a field blank sample (FB) was collected. Four trip blank samples were submitted with the field samples to the laboratory to assess field or transportation-related contamination.

3.5 DEVIATIONS FROM THE QAPP

The approved QAPP indicated that groundwater samples would be collected at two of the downgradient soil borings if possible. Below Ground Surface installed temporary wells at SB01 and SB04. The temporary well at SB01 remained dry after sitting overnight, so no groundwater sample was collected there.

No other deviations from the approved QAPP occurred.

4.0 ANALYTICAL RESULTS

Section 4.0 discusses analytical results from soil and groundwater samples collected during Phase II activities in October 2019. A copy of the analytical report from ALS laboratory (ALS) and the associated chain of custody are in Appendix F. On October 16 and 17, 2019, Tetra Tech submitted 18 soil samples, two groundwater samples, two soil trip blanks, and two aqueous trip blanks via FedEx to ALS in Holland, Michigan; the samples arrived there on October 18, 2019. Soil and groundwater sample results were compared to Missouri Risk-Based Corrective Action (MRBCA) lowest default target levels (LDTL), MRBCA Tier 1 non-residential land use Risk-based Target Levels (RBTL) for surface soil (ingestion, inhalation, [vapor emissions and particulates], and dermal contact) soil type 2 (silty), and MRBCA Tier 1 non-residential land use RBTL for subsurface soil (indoor inhalation of vapor emissions) soil type 3 (clayey). Most soil cores collected during drilling indicated less consolidated silty soils at the top interval and tight clay soil at deeper intervals. Additionally, groundwater samples were compared to EPA maximum contaminant levels (MCL) and soil samples were compared to EPA non-residential removal management levels (RML), EPA non-residential regional screening levels (RSL) based on an excess cancer target risk of 1×10^{-6} and a hazard quotient of 1, and EPA MCL-based soil screening levels (SSL).

Results from the ACM and LPB surveys are discussed in detail in the Targeted Brownfields Assessment Hazardous Material Survey Report (Appendix D).

4.1 SOIL BORING SAMPLING RESULTS

Several VOCs were detected at concentrations above laboratory reporting limits. All detections were below LDTLs. Table 2 lists detected results for VOCs in soil samples.

TABLE 2

DETECTED VOC RESULTS FROM SOIL SAMPLES

OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI

Sample Location	2-Butanone (MEK)	Acetone	Carbon disulfide	Ethylbenzene	Total Xylenes
	MRBCA LDTL (µg/kg)				
	7,300	4,200	6,260	39,900	24,700
	RBTL (µg/kg) Surface Soils – Silty				
	7.39E+06	8.07E+08	9.56E+07	9.75E+07	1.04E+08
	RBTL (µg/kg) Subsurface Soils – Clayey				
	2.03E+08	1.15E+08	1.72E+05	5.20E+06	6.63E+05
	EPA RML (µg/kg)				
	1.90E+08	6.70E+08	3.50E+06	2.50E+06	2.50E+06
	EPA RSL (µg/kg)				
	1.90E+08	6.70E+08	3.50E+06	2.50E+04	2.50E+06
	EPA SSL (µg/kg)				
	NA	NA	NA	7.80E+02	9.90E+03
SB01-01-03	40 J+	ND	0.6 J+	ND	ND
SB01-21-23	ND	11 J	ND	ND	ND
SB02-01-03	ND	21 J+	ND	ND	ND
SB02-27-29	ND	5 J	ND	ND	ND
SB03-01-03	ND	38 J+	ND	ND	ND
SB03-18-20	ND	6.2 J	ND	ND	ND
SB04-01-03	5.6 J+	38 J+	ND	ND	ND
SB04-01-03D (FD)	ND	19 J+	ND	ND	ND
SB04-23-25	ND	5.1 J+	ND	ND	ND
SB05-01-03	ND	25 J+	ND	ND	ND
SB05-01-03D (FD)	ND	47 J+	ND	ND	ND
SB05-13-15	ND	12 J	ND	ND	ND
SB06-01-03	ND	ND	ND	1.6 J+	7.9 J+
SB07-01-03	ND	33	ND	ND	ND
SB08-01-03	ND	8.2 J+	ND	ND	ND

Notes:

EPA	Environmental Protection Agency
FD	Field duplicate
µg/kg	Micrograms per kilogram
NA	Not applicable
ND	Not detected
J	Estimated result
J+	Estimated result biased high
LDTL	Lowest default target level
MRBCA	Missouri Risk-based Corrective Action
RBTL	Risk-based Target Level
RML	Removal Management Level
RSL	Regional Screening Level (non-residential based on excess cancer target risk of 1×10^{-6} and a hazard quotient of 1)
SSL	Soil Screening Level (protective of the maximum contaminant level)

Several SVOCs were detected at concentrations above laboratory reporting limits. All detections were below LDTLs. Table 3 lists detected results for SVOCs in soil samples.

TABLE 3
DETECTED SVOC RESULTS FROM SOIL SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI

Sample Location	2-Methylnaphthalene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Dibenzofuran	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
	MRBCA LDTL (µg/kg)															
	7,550	174,000	3,060,000	6,120	620	619	1,720,000	62,000	599,000	620	6,560	2,280,000	3,770	325	158,000	1,500,000
	RBTL (µg/kg) Surface Soils -Silty															
	3.59E+06	5.38E+07	2.11E+04	2.11E+06	2.11E+03	2.10E+06	1.65E+07	2.11E+05	2.02E+06	2.11E+03	1.79E+06	2.18E+07	1.28E+04	1.19E+05	2.75E+07	1.64E+07
	EPA RML (µg/kg)															
	3.00E+06	4.50E+07	2.30E+08	2.10E+06	2.10E+05	2.10E+05	NA	2.10E+07	2.10E+08	2.10E+05	1.00E+06	3.00E+07	2.10E+07	5.90E+05	NA	2.30E+07
	EPA RSL (µg/kg)															
	3.00E+06	4.50E+07	2.30E+08	2.10E+04	2.10E+03	2.10E+03	NA	2.10E+05	2.10E+06	2.10E+03	1.00E+06	3.00E+07	2.10E+04	1.70E+03	NA	2.30E+07
	EPA SSL (µg/kg)															
	NA	NA	NA	NA	2.40E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB01-01-03	ND	ND	ND	110	100	110	73	88	110	ND	ND	170	69	ND	100	170
SB03-01-03	130	10	28	69	62	93	50	36	72	16	54	160	43	51	200	140
SB04-01-03	21	14	16	66	66	94	54	39	62	15	ND	130	48	11	95	110
SB04-01-03D (FD)	15	ND	ND	31	34	46	34	24	29	14	ND	57	27	8.5	50	54

Notes:

EPA	Environmental Protection Agency
FD	Field duplicate
µg/kg	Micrograms per kilogram
NA	Not applicable
ND	Not detected
LDTL	Lowest default target level
MRBCA	Missouri Risk-based Corrective Action
RBTL	Risk-based Target Level
RML	Removal Management Level
RSL	Regional Screening Level (non-residential based on excess cancer target risk of 1 x 10 ⁻⁶ and a hazard quotient of 1)
SSL	Soil Screening Level (protective of the maximum contaminant level)

TPH-DRO, TPH-GRO, and TPH-ORO were all detected at concentrations above laboratory reporting limits. All detections were below LDTLs. Table 4 lists detected results for TPHs in soil samples.

TABLE 4
DETECTED TPH RESULTS FROM SOIL SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI

Sample Location	DRO	GRO	ORO
	MRBCA LDTL		
	4,150	385	124,000
	RBTL (mg/kg) Surface Soils -Silty		
	1.41E+06	4.65E+06	1.25E+06
	RBTL (mg/kg) Subsurface Soils Clayey		
	1.09E+05	9.62+03	NA
	EPA RML (mg/kg)		
	NA	NA	NA
	EPA RSL (mg/kg)		
	NA	NA	NA
	EPA SSL (mg/kg)		
	NA	NA	NA
SB03-01-03	13	9.9	3.7 J
SB03-18-20	ND	2.4 J	ND
SB06-01-03	ND	2.8 J	ND
SB07-01-03	ND	2.4 J	ND

Notes:

DRO	Diesel-range organics
EPA	Environmental Protection Agency
GRO	Gasoline-range organics
mg/kg	Milligrams per kilogram
NA	Not applicable
ND	Not detected
J	Estimated result
ORO	Oil-range organics
LDTL	Lowest default target level
MRBCA	Missouri Risk-based Corrective Action
RBTL	Risk-based Target Level
RML	Removal Management Level
RSL	Regional Screening Level (non-residential based on excess cancer target risk of 1×10^{-6} and a hazard quotient of 1)
SSL	Soil Screening Level (protective of the maximum contaminant level)

Arsenic in most soil samples and lead in all soil samples were detected at concentrations exceeding their respective MRBCA LDTLs; however, the concentrations were comparable to naturally occurring surface soil concentrations within Butler County, Missouri. The LDTL for arsenic is 3.89 milligrams per kilogram (mg/kg), and USGS-reported background arsenic concentrations in Butler County ranged from 2.055 to 23.447 mg/kg with a mean of 8.842 mg/kg (USGS 2020). Three samples contained arsenic concentrations above the range of background arsenic in Butler County—surface soil sample SB05-01-03 and its field

duplicate SB05-01-03D (both containing arsenic concentrations that also exceeded the RBTL for surface soil), and sample SB05-13-15 from the deeper interval. The surface soil sample SB05-01-03 and field duplicate SB05-01-03D do not exceed the EPA RML of 300 mg/kg which applies to surface soil. The deeper sample, SB05-13-15 is unlikely to impact the site since future use is not anticipated to be residential. The LDTL for lead is 3.74 mg/kg, and USGS reported background lead concentrations in Butler County range from 7.603 to 441.226 mg/kg, with a mean of 36.767 mg/kg (USGS 2020). No lead result exceeded the range of background lead in Butler County or the RBTL for surface soil. Several other metals were detected at concentrations above laboratory reporting limits, but not at levels exceeding LDTLs. Table 5 lists detected results for metals in soil samples.

TABLE 5
DETECTED METALS RESULTS FROM SOIL SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI

Sample Location	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
	MRBCA LDTL (mg/kg)						
	3.89	2,040	9.31	74,600	3.74	6.27	16.2
	MRBCA RBTL (mg/kg) Surface Soils Silty						
	15.9	181,000	74.8	472,000	660	4,780	4,480
	MRBCA RBTL (mg/kg) Subsurface Soils Clayey						
	NA	NA	NA	NA	NA	NA	NA
	EPA RML (mg/kg)						
	300	220,000	2,900	NA	800	5,800	5,800
	EPA RSL (mg/kg)						
	3	220,000	980	NA	800	5,800	5,800
	EPA SSL (mg/kg)						
	0.29	82	0.38	180,000	14	0.26	NA
SB01-01-03	9.2	150	0.44	33	140	ND	0.13 J
SB01-21-23	14	78	ND	53	12	ND	ND
SB02-01-03	5	36	ND	34	5.2	ND	ND
SB02-27-29	20	33	ND	11	15	ND	ND
SB03-01-03	6.5	180	0.091 J	23	66	ND	ND
SB03-18-20	11	88	ND	33	14	ND	ND
SB04-01-03	12	160	0.13 J	33	210	0.39 J	0.16 J
SB04-01-03D (FD)	11	130	0.081 J	32	81	ND	0.079 J
SB04-23-25	20	40	ND	10	26	ND	ND
SB05-01-03	80	35	ND	76	21	ND	ND
SB05-01-03D (FD)	70	29	ND	51	17	ND	ND
SB05-13-15	29	86	ND	28	20	ND	ND
SB06-01-03	5	130	ND	22	10	ND	ND
SB06-11-13	8.2	12	ND	9.3	11	ND	ND
SB07-01-03	3.7	110	ND	14	10	ND	ND
SB07-37-39	9.5	110	0.033 J	12	13	ND	ND

TABLE 5 (Continued)

**DETECTED METALS RESULTS FROM SOIL SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI**

Sample Location	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver
	MRBCA LDTL (mg/kg)						
	3.89	2,040	9.31	74,600	3.74	6.27	16.2
	MRBCA RBTL (mg/kg) Surface Soils Silty						
	15.9	181,000	74.8	472,000	660	4,780	4,480
	MRBCA RBTL (mg/kg) Subsurface Soils Clayey						
	NA	NA	NA	NA	NA	NA	NA
	EPA RML (mg/kg)						
	300	220,000	2,900	NA	800	5,800	5,800
	EPA RSL (mg/kg)						
	3	220,000	980	NA	800	5,800	5,800
	EPA SSL (mg/kg)						
	0.29	82	0.38	180,000	14	0.26	NA
SB08-01-03	2.5	100	ND	14	7.3	ND	ND
SB08-11-13	21	38	ND	43	22	ND	ND

Notes:

Result in bold indicates exceedance of MRBCA LDTL.

Shaded result exceeds background range for Butler County, Missouri.

EPA Environmental Protection Agency

FD Field duplicate

mg/kg Milligrams per kilogram

NA Not applicable

ND Not detected

J Estimated result

LDTL Lowest default target level

MRBCA Missouri Risk-based Corrective Action

RBTL Risk-based Target Level

RML Removal Management Level

RSL Regional Screening Level (non-residential based on excess cancer target risk of 1×10^{-6} and a hazard quotient of 1)

SSL Soil Screening Level (protective of the maximum contaminant level)

No PCB was detected at concentration above a laboratory reporting limit in any soil sample.

4.2 GROUNDWATER SAMPLING RESULTS

The VOCs 2-butanone, acetone, and chloroform were detected at concentrations above laboratory reporting limits, but none was detected at a concentration exceeding an LDTL. Table 6 lists detected results for VOCs in groundwater sample SB04-GW and its field duplicate SB04-GWD.

TABLE 6

**DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI**

Sample Location	2-Butanone (MEK)	Acetone	Chloroform
	MRBCA LDTL (µg/L)		
	3,640	2,970	80
	MRBCA RBTL (µg/L)		
	1.23E+09	8.14E+08	4.27E+03
	EPA MCL (µg/L)		
	NA	NA	80
SB04-GW	0.63 J	5.4 J	3.6
SB04-GWD (FD)	0.68 J	5.2 J	3.8

Notes:

EPA	Environmental Protection Agency
FD	Field duplicate
GW	Groundwater
J	Estimated result
LDTL	Lowest default target level
MCL	Maximum Contaminant Level
MEK	Methyl ethyl ketone
MRBCA	Missouri Risk-based Corrective Action
NA	Not applicable
RBTL	Risk-based Target Level
µg/L	Micrograms per liter

Several SVOCs were detected at concentrations above the laboratory reporting limit, and of those, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were detected above LDTLs in the SB04-GW sample, but none exceeded the RBTL for indoor inhalation of vapor emissions. Table 7 lists detected results for SVOCs in groundwater samples SB04-GW and its field duplicate SB04-GWD.

TABLE 7

**DETECTED SVOC RESULTS FROM GROUNDWATER SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI**

Sample Location	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Fluoranthene	Indeno(1,2,3-cd)pyrene
	MRBCA LDTL (µg/L)						
	1.02E-02	6.27E-02	2.64E+01	6.46E-01	6.00E+00	1.64E+02	3.82E-02
	MRBCA RBTL (µg/L)						
	1.54E+05	1.25E+05	1.33E+08	2.74E+06	1.30E+08	3.02E+08	2.46E+06
	EPA MCL (µg/L)						
	2.00E-01	NA	NA	NA	6.00E+00	NA	NA
SB04-GW	3.2	3	3	2	ND	2.2	3.8
SB04-GWD (FD)	ND	ND	ND	ND	1.7	ND	ND

Notes:

Result in bold indicates exceedance of MRBCA LDTL.

EPA Environmental Protection Agency
 FD Field duplicate
 GW Groundwater
 LDTL Lowest default target level
 MCL Maximum Contaminant Level
 MRBCA Missouri Risk-based Corrective Action
 NA Not applicable
 RBTL Risk-based Target Level
 µg/L Micrograms per liter

TPH-DRO was detected at 0.14 milligrams per liter (mg/L) in the field duplicate (SB04-GWD)—below the MRBCA LDTL of 34.3 mg/L and the RBTL of 454 mg/L. No other TPH detection occurred in groundwater samples SB04-GW and its field duplicate SB04-GWD.

Arsenic and lead as total metals were detected in SB04-GW and its field duplicate sample SB04-GWD at concentrations exceeding their respective LDTLs. Neither arsenic nor lead were reported above LDTLs in the dissolved metals samples. Table 8 lists detected results for metals in groundwater samples.

TABLE 8

**DETECTED TOTAL AND DISSOLVED METALS RESULTS FROM
GROUNDWATER SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI**

Sample Location	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium
	MRBCA LDTL (mg/L)					
	0.01	2	0.005	0.1	0.015	0.05
	MRBCA RBTL (mg/L)					
	NA	NA	NA	NA	NA	NA
	EPA MCL (mg/L)					
	0.01	2	0.005	0.1	0.015	0.05
Total Metals (mg/L)						
SB04-GW	0.029	0.19	0.00019 J	0.037	0.062	0.0041 J
SB04-GWD (FD)	0.042	0.37	0.00051 J	0.075	0.16	0.0062
Dissolved Metals (mg/L)						
SB04-GW	0.0063	0.1	ND	0.0074	0.0082	0.00069 J
SB04-GWD (FD)	0.006	0.1	ND	0.0067	0.0073	ND

Notes:

Result in bold indicates exceedance of MRBCA LDTL.

EPA Environmental Protection Agency
 FD Field duplicate
 GW Groundwater
 J Estimated result
 mg/L Milligrams per liter
 NA Not applicable
 ND Not detected
 LDTL Lowest default target level
 MCL Maximum Contaminant Level
 MRBCA Missouri Risk-based Corrective Action
 RBTL Risk-based Target Level

No PCB was detected at concentration above a laboratory reporting limit in SB04-GW or its field duplicate sample SB04-GWD.

4.3 QA/QC SAMPLE RESULTS

In addition to the duplicate samples listed above, an ER, an FB, and four trip blank samples (TB-Water 1, TB-Water 2, TB-Soil 1, and TB-Soil 2) were collected. Several VOCs and SVOCs were detected at concentrations above laboratory reporting limits. VOCs 2-butanone and acetone, common laboratory contaminants, were not detected at levels exceeding any screening levels. Benzo(a)pyrene and indeno(1,2,3-cd)pyrene exceeded the respective LDTLs in the field blank, however both were detected in the sample SB04-GW at more than 10 times the respective results in the field blank so the blank detections are not considered significant. No other detected SVOCs exceeded a screening level. Table 9 lists detected results from QC samples. No compounds were detected in TB-Water 2, TB-Soil 1 or TB-Soil 2.

TABLE 9

**DETECTED RESULTS FROM QA/QC SAMPLES
OAK STREET CITY HALL PHASE II – POPLAR BLUFF, MISSOURI**

Sample ID	VOCs			SVOCs						
	2-Butanone	Acetone	2-Methylphenol	3&4-Methylphenol	Benzaldehyde	Benzo(a)pyrene	Benzo(g,h,i)perylene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenol
	MRBCA LDTL (µg/L)									
	3,640	2,970	743	74.3*	NA	0.0102	26.4	0.00421	0.0382	4,570
	MRBCA RBTL (µg/L)									
	1.23E+09	8.14E+08	9.51E+08	9.51E+07*	NA	154,000	1.33E+08	331,000	2,460,000	1.32E+09
	EPA MCL (µg/L)									
	NA	NA	NA	NA	NA	2.00E-01	NA	NA	NA	NA
ER	ND	4.5 J	0.9 J	1.6	0.68 J	ND	ND	ND	ND	3
FB	ND	3.1 J	ND	ND	0.89 J	0.12	0.11	0.11	0.12	0.51 J
TB-Water 1	0.66 J	3.4 J	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Result in bold indicates exceedance of MRBCA LDTL.

* MRBCA values for 4-methylphenol were used because these were the lower between 3-methylphenol and 4-methylphenol.

EPA Environmental Protection Agency
 ER Equipment rinsate sample
 FB Field blank sample
 J Estimated result
 LDTL Lowest default target level
 NA Not applicable
 ND Not detected
 MCL Maximum Contaminant Level
 MRBCA Missouri Risk-based Corrective Action
 RBTL Risk-based Target Level
 SVOC Semivolatile organic compound
 TB Trip blank
 VOC Volatile organic compound
 µg/L Micrograms per liter

4.4 HAZARDOUS MATERIALS SURVEY

ACM sample results are discussed in more detail in Appendix D, and summarized below:

City Hall – First Floor

- Regulated ACM was identified in black mastic associated with 12" X 12" white with black streaks floor tile (approximately 600 square feet [SF]) in the southwest hallway. The black mastic was represented by samples FT1-1, -2, and -3. Laboratory results indicated that the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" grey with red and brown streaks floor tile (approximately 300 SF) in Rooms 12 and 23. The floor tile was represented by samples FT6-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT8-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" black floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT9-1, -2, and -3. Laboratory results indicated that the floor tile contained 6% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" grey, white, and green cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 14 and 15 under FT10 and FT11. The floor tile and mastic were represented by samples FT12-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos and the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" beige with tan cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 9, 11, and 13. The floor tile and mastic were represented by samples FT14-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile and the mastic contained 8% chrysotile asbestos.
- Approximately 7,000 SF of 12" X 12" white fissure and pinhole ceiling tile mastic is presumed asbestos-containing in Room 20 and the east office area.
- Regulated ACM was identified in 9" X 9" brown with black streaks floor tile and mastic (approximately 4,000 SF) in Rooms 43, 46, 89, 88 and hallway, hallway near Room 43, hallway north exit near Elm Street, hallway south of boiler room, hallway west of boiler room, and room south of mechanical maintenance room and hallway. The floor tile and mastic were represented by samples FT15-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile and the mastic contained 5% chrysotile asbestos.
- Regulated ACM was identified in white ceiling texture (approximately 500 SF) in Room 88 and hallway, and hallway west and south of boiler room. The ceiling texture was represented by samples CTX-1, -2, and -3. Laboratory results indicated that the ceiling texture contained 5% chrysotile asbestos.

- Regulated ACM was identified in the wall texture behind the white plastic wall paneling (approximately 350 SF) in the hallway south of the boiler room. The wall texture was represented by samples WM1-1, -2, and -3. Laboratory results indicated that the wall texture contained 4% chrysotile asbestos.
- Regulated ACM was identified in tan linoleum (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile. The linoleum was represented by samples LIN1-1, -2, and -3. Laboratory results indicated that the linoleum contained 25% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile and linoleum. The floor tile was represented by samples FT16-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" tan floor tile (approximately 1,800 SF) in Rooms 36, 39 through 42, and 70, and under the carpet in hallway east of Room 46. The floor tile was represented by samples FT17-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" cream with lime green and white streaks floor tile (approximately 700 SF) in the courtroom. The floor tile was represented by samples FT18-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" cream with black and brown streaks floor tile (approximately 525 SF) in Rooms 62 and 63. The floor tile was represented by samples FT19-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in airocell pipe insulation (approximately 300 linear feet [LF]) on the east side of the first floor and boiler room. The airocell was represented by samples TSI-1, -2, and -3. Laboratory results indicated that the airocell contained 60% chrysotile asbestos.
- Regulated ACM was identified in joint insulation (approximately 175 joints) on the east side of the first floor and boiler room. The joint insulation was represented by samples TSIJ-1, -2, and -3. Laboratory results indicated that the joint insulation contained 30% chrysotile asbestos.
- Regulated ACM was identified in 4" X 12" brown floor tile and mastic (approximately 10 SF) in Room 48 southwest closet. The floor tile and mastic were represented by samples FT29-1, -2, and -3. Laboratory results indicated that the floor tile contained 10% chrysotile and the mastic contained 5% chrysotile asbestos.

City Hall – Second Floor

- Regulated ACM was identified in ceramic tile mastic (approximately 1,000 SF) on the second floor in bathrooms 71, 74, 75, 77, 78, and 79. The mastic was represented by samples CTM-1, -2, and -3. Laboratory results indicated that the mastic contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" beige with brown streaks floor tile mastic (approximately 8,000 SF) on the second-floor hallway and Rooms 71, 74 through 79, and storage

and maintenance area. The mastic was represented by samples FT20-1, -2, and -3. Laboratory results indicated that the mastic contained 6% chrysotile asbestos.

- Regulated ACM was identified in yellow linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN2-1, -2, and -3. Laboratory results indicated that the linoleum contained 20% chrysotile asbestos.
- Regulated ACM was identified in grey linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN3-1, -2, and -3. Laboratory results indicated that the linoleum contained 65% chrysotile asbestos.
- Regulated ACM was identified in black sink undercoat (approximately 5 SF) in the narcotics room. The sink undercoat was represented by samples SU-1, -2, and -3. Laboratory results indicated that the sink undercoat contained 5% chrysotile asbestos.
- Regulated ACM was identified in grey floor tile under linoleum (approximately 1,100 SF of floor tile and linoleum) in the men's locker room. The floor tile was represented by samples FT21-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the linoleum contained 60% asbestos.
- Regulated ACM was identified in brown and tan pattern linoleum (approximately 10 SF) in Room 81 on the bottom shelf. The linoleum was represented by samples LIN4-1, -2, and -3. Laboratory results indicated that the linoleum contained 15% chrysotile asbestos.

City Hall – Exterior

- Regulated ACM was identified in transite panels (approximately 1,000 SF) on the south exterior soffit. The transite was represented by samples TRAN-1, -2, and -3. Laboratory results indicated that the transite contained 20% chrysotile asbestos.
- Regulated ACM was identified in brown window caulk (approximately 160 LF) on the south exterior windows. The caulk was represented by samples C-1, -2, and -3. Laboratory results indicated that the caulk contained 5% chrysotile asbestos.
- Regulated ACM was identified in black expansion caulk (approximately 50 LF) on the north loading dock. The caulk was represented by samples EC2-1, -2, and -3. Laboratory results indicated that the caulk contained 10% chrysotile asbestos.
- Regulated ACM was identified in brown and off-white window caulk (approximately 450 LF) on the north loading dock. The caulk was represented by samples C2-1, -2, and -3. Laboratory results indicated that the white caulk contained 5% chrysotile asbestos.

Evidence Building – No ACM found in the Evidence Building.

LBP results are discussed in more detail in Appendix E, and summarized below:

City Hall – First Floor

- Approximately 300 SF of white ceramic floor tile in Room 3 tested positive for LBP, with x-ray fluorescence (XRF) reading of 6.72 milligrams per square centimeter (mg/cm²).

- Approximately 44 SF of green ceramic wall tile in Room 22 tested positive for LBP, with XRF reading of 8.74 mg/cm².
- Approximately 1,500 SF of white wall plaster in the maintenance area tested positive for LBP, with XRF reading of 1.21 mg/cm².
- Approximately 50 SF of beige ceramic floor tile in the south entryway tested positive for LBP, with XRF reading of 8.22 mg/cm².

City Hall – Parking Garage

- Approximately 100 LF of yellow painted concrete parking spaces in the parking garage tested positive for LBP, with XRF reading of 5.77 mg/cm².

City Hall – Second Floor

- Approximately 300 SF of yellow ceramic wall tile in Room 72 tested positive for LBP, with XRF reading of 4.19 mg/cm².
- Approximately 400 SF of light pink ceramic wall tile in Rooms 71 and 74 tested positive for LBP, with XRF reading of 4.57 mg/cm².
- Approximately 800 SF of cream ceramic wall tile in Rooms 72, 75, 77, 78, and 79 tested positive for LBP, with XRF reading of 4.81 mg/cm².
- Approximately 100 SF of green ceramic wall tile in the second-floor center hall bathroom tested positive for LBP, with XRF reading of 12.77 mg/cm².
- Approximately 50 SF of green ceramic wall tile in the narcotics room tested positive for LBP, with XRF reading of 14.26 mg/cm².
- Approximately 700 SF of cream/yellow ceramic wall tile in the narcotics bathroom tested positive for LBP, with XRF reading of 8.34 mg/cm².
- Approximately 40 SF of white ceramic floor tile in the narcotics bathroom tested positive for LBP, with XRF reading of 3.98 mg/cm².

Evidence Building

- Approximately 40 SF of white wood door in the back room of the Evidence Building tested positive for LBP, with XRF reading of 2.97 mg/cm².

Laboratory results indicated that no sampled building materials contained concentrations of PCBs above 50 parts per million (ppm).

Hazardous waste and other hazardous materials were inventoried during the survey, as detailed in Appendix E. Tetra Tech recommends proper disposal of these materials based on their characteristics prior to demolition of the subject property buildings.

5.0 CONCLUSIONS AND RECOMMENDATIONS

In 2019, START conducted a Phase II TBA at the site subsequent to a Phase I ESA in July 2018 that had identified RECs to the site in association with three pad-mounted transformers at the site without labeling indicating they did not contain PCBs. The Phase II TBA included collection of soil and groundwater samples from DPT borings, and a hazardous materials survey of site structures.

START, as well as DPT subcontractor Below Ground Surface, Inc., conducted soil and groundwater sampling on October 16 and 17, 2019. Eight soil borings were advanced to depths ranging from 3 to 39 feet bgs. Two soil samples were collected at each soil boring—one within the 1- to 3-foot bgs interval, and one within a deeper interval. Groundwater was encountered in only one boring, at SB04. START collected a groundwater sample and field duplicate at SB04. Samples submitted to ALS via FedEx (on October 17, 2019) were analyzed for VOCs, SVOCs, TPHs, PCBs and metals.

Several VOCs, SVOCs, and TPHs were detected in soil samples, but no detection exceeded an associated MRBCA LDTL or RBTL. No PCB was detected in any soil sample.

Arsenic in most soil samples and lead in all soil samples were detected at concentrations exceeding their respective MRBCA LDTLs; however, the concentrations were comparable to naturally occurring surface soil concentrations within Butler County, Missouri. The LDTL for arsenic is 3.89 mg/kg, and USGS reported background arsenic concentrations in Butler County range from 2.055 to 23.447 mg/kg, with a mean of 8.842 mg/kg (USGS 2020). Three samples contained concentrations above the range of background arsenic in Butler county—surface sample SB05-01-03 and its field duplicate SB05-01-03D (with results from both also exceeding the RBTL for surface soil), and the sample from the deeper interval, SB05-13-15. The surface soil sample SB05-01-03 and field duplicate SB05-01-03D do not exceed the EPA RML of 300 mg/kg which applies to surface soil. The deeper sample, SB05-13-15 is unlikely to impact the site since future use is not anticipated to be residential. The LDTL for lead is 3.74 mg/kg, and USGS reported background lead concentrations in Butler County range from 7.603 to 441.226 mg/kg, with a mean of 36.767 mg/kg (USGS 2020). No lead result exceeded the range of background lead in Butler County or the RBTL for surface soil. Several other metals were detected at concentrations above laboratory reporting limits, but not at levels exceeding LDTLs.

VOCs 2-butanone, acetone, and chloroform were detected at concentrations above laboratory reporting limits in the groundwater samples, but none of these concentrations exceeded an LDTL. Several SVOCs were detected at concentrations above laboratory reporting limits, and of those, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were detected above LDTLs in

sample SB04-GW, but none of those concentrations exceeded an RBTL for indoor inhalation of vapor emissions. TPH-DRO was detected at 0.14 mg/L in the field duplicate sample (SB04-GWD), but this was below the MRBCA LDTL of 34.3 mg/L and the RBTL of 454 mg/L. No other TPH detection occurred in groundwater samples SB04-GW and its field duplicate SB04-GWD. Arsenic and lead as total metals were detected in SB04-GW and in its field duplicate sample SB04-GWD at concentrations exceeding their respective LDTLs. However, neither of these metals was reported above LDTLs in the filtered (dissolved) sample. No PCB was detected at concentration above a laboratory reporting limit in SB04-GW or its field duplicate sample SB04-GWD. START does not recommend further action to address SVOCs or metals in groundwater due to the following: 1) residential use is not planned for this site; 2) the property will not be a source for drinking water, as this is provided by the city's public water supply, and 3) concentrations reported in unfiltered samples were likely impacted by particulates in those samples.

During a Phase I TBA in July 2018, SCS Engineers noted presence of three pad-mounted transformers on the site that posed a REC to the site because none was labeled as not containing PCBs (SCS Engineers 2018). Analytical results from this Phase II investigation, however, indicated that the three pad-mounted transformers likely had not released PCBs onto the site.

START performed a hazardous materials survey during the week of November 4, 2019. Results of the hazardous materials survey are summarized below and discussed in more detail in Appendix E.

ACM was identified throughout the interior and exterior of the main City Hall building. No ACM was identified in the Evidence Building (the warehouse) on the site. All regulated ACM listed above should be removed by a licensed asbestos abatement contractor before any renovation or demolition work disturbs the material. The removed waste must be transported to a disposal site able to accept both friable and non-friable ACM. If the building is to be renovated and any of the above ACM materials are not to be disturbed, these may remain in place.

LBP was identified on the first and second floors of the City Hall building and in the parking garage. LBP was also identified in the Evidence Building (the warehouse). HUD considers LBP as paint with lead levels above 1.0 mg/cm². If the LBP surfaces are impacted during renovations, Tetra Tech recommends that the contractor conducting the renovations comply with Occupational Safety and Health Administration (OSHA) Lead in Construction Standard, Title 29 of *Code of Federal Regulations* (CFR), Part 1926.62. If the materials containing LBP are removed during renovation activities, representative samples should be collected from the debris for a Toxicity Characteristic Leaching Procedure (TCLP)

analysis (40 CFR 261.24); representative samples should be analyzed for all eight metals specified in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). This would allow determination of the proper method of disposal of the materials.

PCBs were not detected in suspected building material samples sent to ALS for analysis.

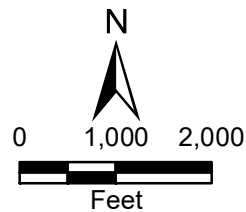
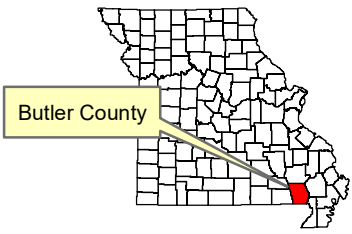
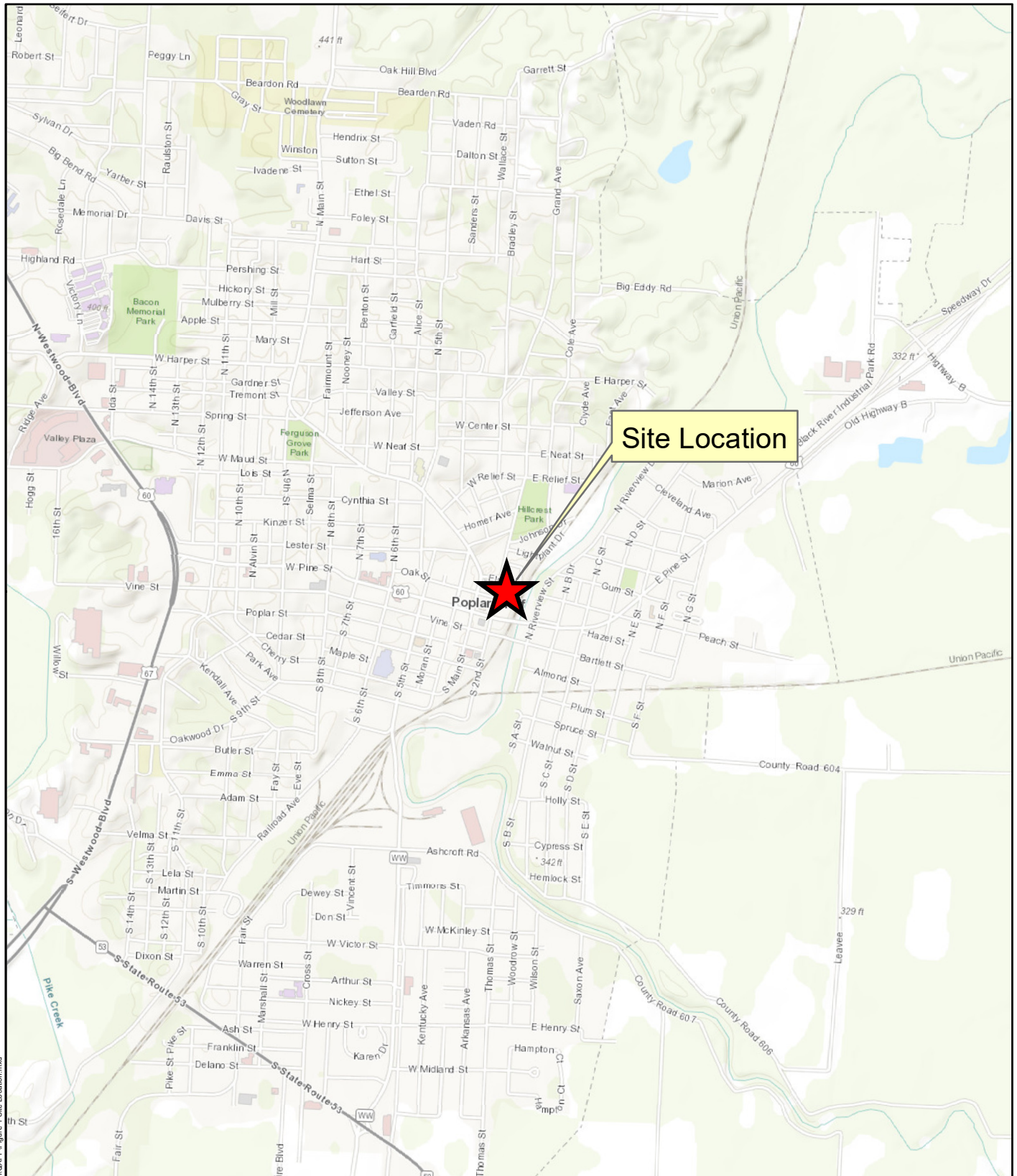
Hazardous waste and other hazardous materials were inventoried during the survey. Tetra Tech recommends proper disposal of the materials based on their characteristics prior to demolition of the subject property buildings.

6.0 REFERENCES

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APPENDIX A

FIGURES



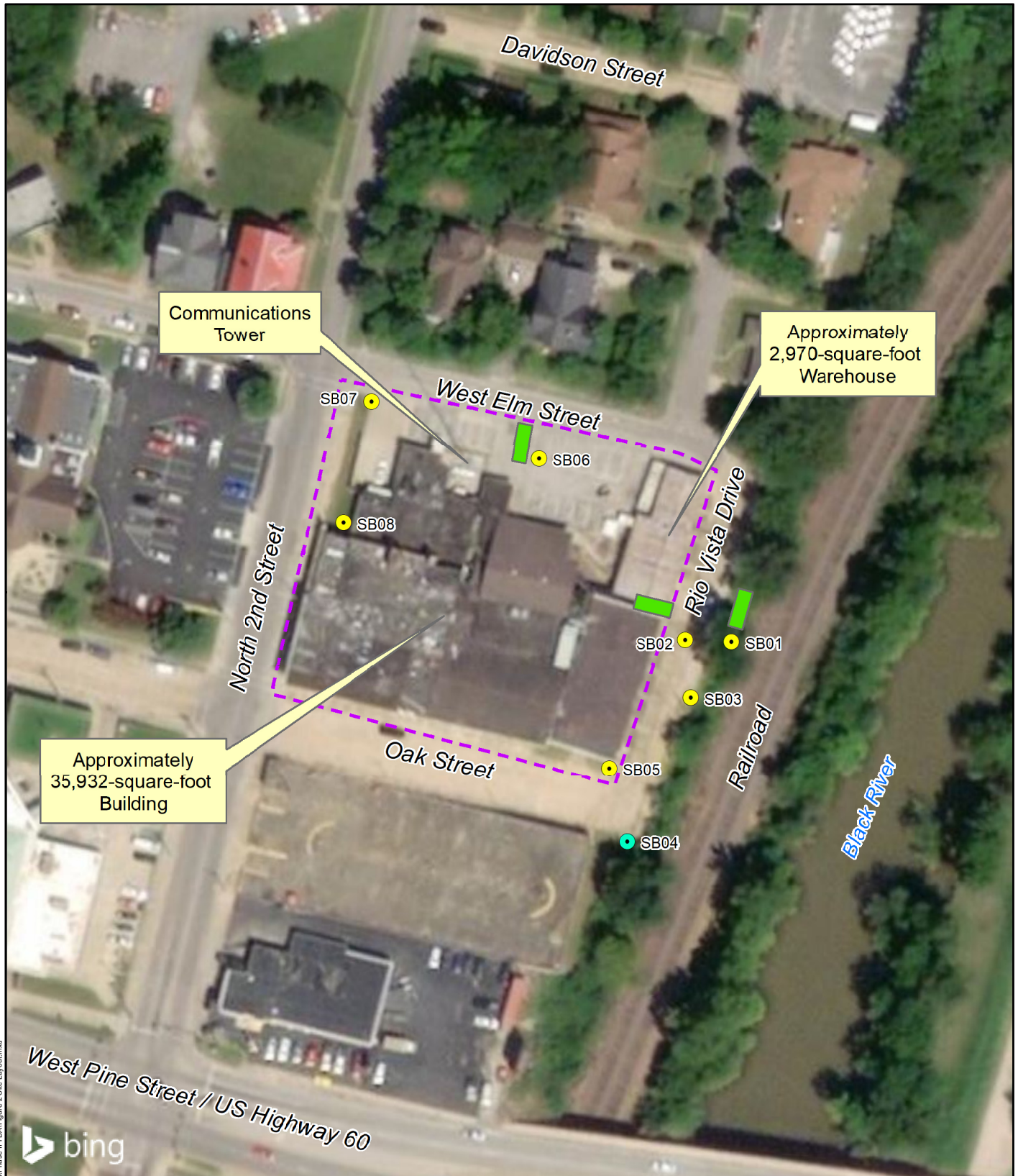
Oak Street City Hall
Poplar Bluff, Missouri

Figure 1
Site Location Map



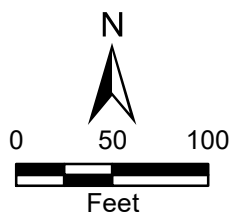
C:\START WORK\Brownfields\Oak Street City Hall Poplar Bluff\QAPP\Figure 1 Site Location.mxd

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase,



- DPT Soil and Groundwater Sample Location
- DPT Soil Sample Location

- Approximate Site Boundary
- Pad-mounted Transformer Location



Oak Street City Hall
Poplar Bluff, Missouri

Figure 2
Site Layout Map



Service Layer Credits: © 2020 Microsoft Corporation © 2020 DigitalGlobe © CNES (2020) Distribution Airbus DS

Date: 2020-02-11

Drawn By: Michelle Handley

Project Number: X903019F0101.005

C:\START WORK\Brownfields\Oak Street City Hall Poplar Bluff\Phase II TBA\Figure 2 Site Layout.mxd

APPENDIX B
PHOTOGRAPHIC DOCUMENTATION

**Oak Street City Hall Site
Poplar Bluff, Missouri**



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: northwest</p>	DESCRIPTION	This photograph shows the southwest corner of the subject property.	1
	CLIENT	Environmental Protection Agency - Region 7	DATE 11/08/19
	PHOTOGRAPHER	Megan Sawyer	

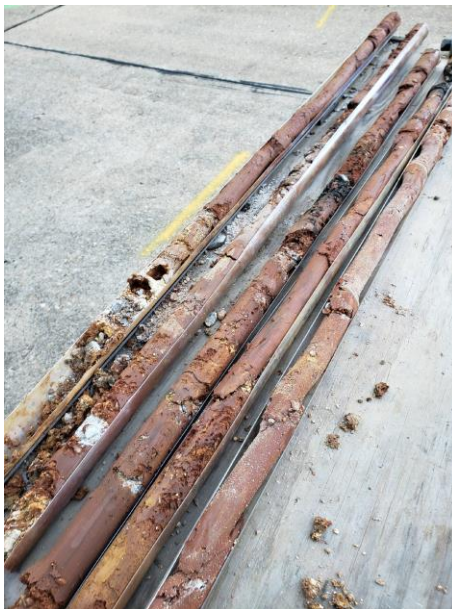


<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: NA</p>	DESCRIPTION	This photograph shows the core of boring SB01 from 5 to 10 feet below ground surface (ft bgs). Clay is present at this deeper interval.	2
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/16/19
	PHOTOGRAPHER	Michelle Handley	

**Oak Street City Hall Site
Poplar Bluff, Missouri**



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: north</p>	DESCRIPTION	This photograph shows DPT drilling at SB02.	3
	CLIENT	Environmental Protection Agency - Region 7	<p>DATE 10/16/19</p>
	PHOTOGRAPHER	Michelle Handley	



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: NA</p>	DESCRIPTION	This photograph shows cores from boring SB02. Top interval contains less consolidated silty soil, while deeper intervals consist of clayey soils.	4
	CLIENT	Environmental Protection Agency - Region 7	<p>DATE 10/16/19</p>
	PHOTOGRAPHER	Michelle Handley	

**Oak Street City Hall Site
Poplar Bluff, Missouri**

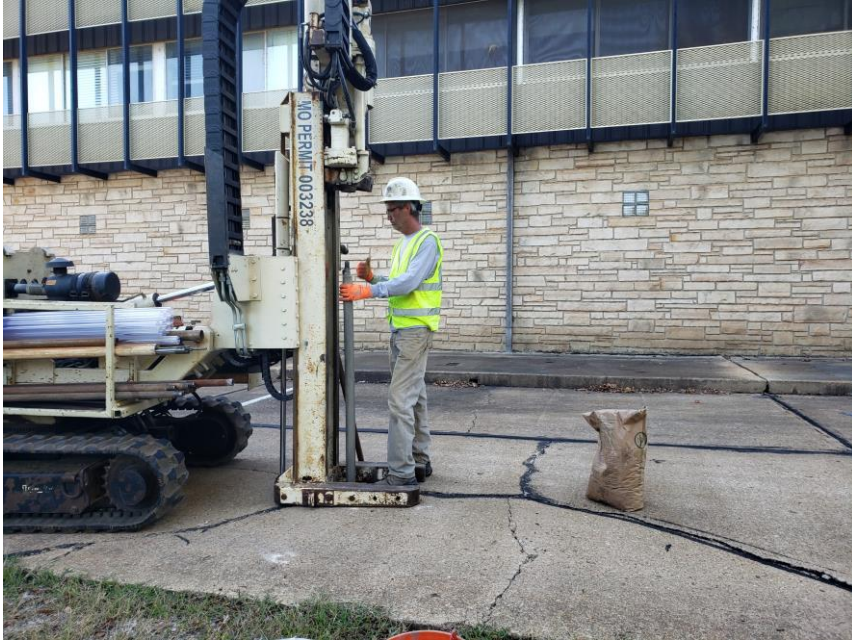


<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: northwest</p>	DESCRIPTION	This photograph shows boring location SB02 downgradient of one of the pad-mounted transformers (just around the corner of the stone wall).	5
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/16/19
	PHOTOGRAPHER	Michelle Handley	



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: east</p>	DESCRIPTION	This photograph shows boring location SB01 with temporary well (dry).	6
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/16/19
	PHOTOGRAPHER	Michelle Handley	

**Oak Street City Hall Site
Poplar Bluff, Missouri**



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: east</p>	DESCRIPTION	This photograph shows drilling at SB03.	7
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/16/19
	PHOTOGRAPHER	Michelle Handley	



<p>TETRA TECH PROJECT NO. X903019F0101.005</p> <p>DIRECTION: east</p>	DESCRIPTION	This photograph shows drilling at SB04.	8
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/17/19
	PHOTOGRAPHER	Michelle Handley	

**Oak Street City Hall Site
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X903019F0101.005 DIRECTION: NA	DESCRIPTION	This photograph shows cores from SB06.	9
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/17/19
	PHOTOGRAPHER	Michelle Handley	



TETRA TECH PROJECT NO. X903019F0101.005 DIRECTION: NA	DESCRIPTION	This photograph shows cores from SB07.	10
	CLIENT	Environmental Protection Agency - Region 7	DATE 10/17/19
	PHOTOGRAPHER	Michelle Handley	

APPENDIX C
SITE LOGBOOK



Made in the
USA
Factory Certified

COMPOSITION

Oak St. City Hall
Lepus Bluff, Missouri
X903019F0101.005

100
SHEETS

Wide
Ruled

10-16-19

- 1315 STM Handley arrives at site to meet city site contacts, Matt Winters and Tony Chilton to unlock gate to comm tower so Gas Utility can be located. Heath Services Utility locator arrives shortly after and marks gas line.
- 1350 STM Handley marks boring locations
- 1408 STM Wiederholt arrives and BGS drillers arrive on site
- 1415 Conduct H₂S Tailgate
- 1445 Arrive @ ~~05CHSB01~~
- 1451 0'-5' collecting 1-3' PID 60ppb
SB01-01-03
- 1455 5'-10' Hard red clay 6-10 PID
Gravel 5-6 60-70 ppb
- 1457 10'-15' 60-80 ppb
- 1500 15'-20' 30-50 ppb
- 1507 20'-23' Refusal collecting 21'-23' 30-50 ppb
SB01-21-23 set temp well
- 1535 Arrive SB02
- 1538 0'-5' Collecting SB02-01-03 PID 40-50 ppb

10-16-19

1540 Still @ SB02 5'-10'

1542 10'-15' red clay 30-40 ppb

1548 15'-20' tight red clay

1608 20'-25' "

1613 25'-29' to water

collect SB02-27-29

1650 Arrive SB03

1653 0'-5'

1658 5'-10'

1706 10'-15'

1704 15'-20' refused

Collecting SB03-18-20

1715 Clean up site

1730 Depart for day

30-40 ppb
20 ppb @ 10' 5'
40-80 ppb @ 10'
30-40 ppb
40-50 ppb

20-40 ppb

Collecting SB03-01-03 @ 1653

40-50 ppb

0-30 ppb

0-20 ppb

0-10 ppb

[Signature]

10-16-19 SB03-01-03 1653

104749

0800 STM Handley & Wiederholt meet BGS
at site; Conduct H&S Tailgate

0815 Arrive @ SBØ4

0822 0'-5' 0-10 ppb Collect SBØ4-Ø1-Ø3

0827 5'-10' 0-10 ppb red clay + sand

0830 10'-15' 0-20 ppb tight red clay

0841 15'-20' 20-60 ppb

0849 20'-25' 30-60 ppb

0856 25'-30' 30-40 ppb saturated @ ~27'

~~0856~~ Collecting SBØ4-23-25

0905 Install Temporary well @ 32'; stepping
over for Field dup SBØ4-Ø1-Ø3

0908 Check Temp well @ SBØ1 for water.

It has been sitting overnight. Dry so
no water sample there

0915 Arrive SBØ5

0919 0'-5' 0-60 ppb Collect SBØ5-Ø1-Ø3

0923 5'-10' 0-60 ppb

0937 10'-15' 0-60 ppb

0945 Drillers need to clear clay out of
rods; clay is swelling.

1005 15'-20' clay is too tight. ~~cutting it~~ Ending boring
Collect SBØ5-13-15

1010 Stepping over for field dup SBØ5-Ø1-Ø3D

10-17-19

1045 Arrive SBØ6

1054 0'-5' 0-130 ppb Collect SBØ6-Ø1-Ø3

1058 5'-10' 40-90 ppb clay

1103 10'-13' Refusal collect SBØ6-11-13

1120 Arrive SBØ7

1127 0'-5' 0 ppb Collect SBØ7-Ø1-Ø3

1130 5'-10' 0 ppb

1135 10'-15' 0 ppb

1140 15'-19' 0 ppb

1149 19'-23' 0-40 ppb

1157 23'-27' 0-10 ppb

1208 27'-31' 0-30 ppb

1210 Collect Field Blank

1215 31'-35' 0-30 ppb

1234 35'-39' 0-70 ppb Collect SBØ7-37-39

1248 At SBØ4 to try and collect GW sample

DTW = 26.8 TD = 32.05

1252 Collect SBØ4-GW

1300 Collect FD SBØ4-GWD

1330 Collect ER

1410 Arrive SBØ8

1420 0'-5' 00-80 ppb Collect SBØ8-Ø1-Ø3

1424 5'-10'

1438 10'-13' Refusal Collect SBØ8-11-13

APPENDIX D

TARGETED BROWNFIELDS ASSESSMENT HAZARDOUS MATERIALS SURVEY



February 25, 2020

Mr. Todd Davis
Site Assessment Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

**Subject: Targeted Brownfields Assessment
Hazardous Materials Survey
Oak Street City Hall Site
Poplar Bluff, Butler County, Missouri
U.S. EPA Region 7 START 5, Contract No. 68HE0719D0001
Task Order No. 19F0101.005
Task Monitor: Todd Davis, Site Assessment Manager**

Dear Mr. Davis:

Tetra Tech, Inc. is submitting the enclosed Hazardous Materials Survey report regarding the Oak Street City Hall site in Poplar Bluff, Missouri. If you have any questions or comments regarding this submittal, please call the Project Manager at (417) 257-9977.

Sincerely,

A handwritten signature in black ink, appearing to read 'M Handley'.

Michelle Handley
START Project Manager

A handwritten signature in blue ink, appearing to read 'Ted Faile'.

Ted Faile, PG, CHMM
START Program Manager

Enclosures

cc: Randy Brown, EPA On-Scene Coordinator
Whitney Bynum, EPA Brownfields and Land Revitalization Branch

**TARGETED BROWNFIELDS ASSESSMENT
HAZARDOUS MATERIALS SURVEY**

PHASE II ENVIRONMENTAL SITE ASSESSMENT

**OAK STREET CITY HALL
POPLAR BLUFF, BUTLER COUNTY, MISSOURI**



**Superfund Technical Assessment and Response Team (START) 5 Contract
Contract No. 68HE0719D0001, Task Order 19F0101.005**

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Boulevard
Lenexa, Kansas 66219

February 25, 2020

Prepared by:

Tetra Tech, Inc.
415 Oak Street
Kansas City, Missouri 64106
(816) 412-1741

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EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct a Hazardous Materials Survey (survey) of the Oak Street City Hall (formerly Poplar Bluff City Hall) and associated evidence building at 101 Oak Street, Poplar Bluff, Missouri (subject property). The current owner, City of Poplar Bluff, has indicated the buildings will be demolished. The two-story City Hall encompasses approximately 35,932 square feet (SF), and the single-story evidence building (warehouse) encompasses approximately 2,970 SF.

The scope of the survey included an inspection of the subject property buildings for presence of asbestos-containing materials (ACM) and lead-based paint (LBP), and sampling of caulk suspected to contain polychlorinated biphenyls (PCB). As part of the survey, Tetra Tech also inventoried containerized hazardous waste (HW) and other hazardous materials.

The following findings and recommendations are based on observations during the survey and analytical results from samples collected at the buildings on the subject property:

ACM:

City Hall – First Floor

- Regulated ACM was identified in black mastic associated with 12" X 12" white with black streaks floor tile (approximately 600 square feet [SF]) in the southwest hallway. The black mastic was represented by samples FT1-1, -2, and -3. Laboratory results indicated that the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" grey with red and brown streaks floor tile (approximately 300 SF) in Rooms 12 and 23. The floor tile was represented by samples FT6-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT8-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" black floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT9-1, -2, and -3. Laboratory results indicated that the floor tile contained 6% chrysotile and the mastic contained 10% chrysotile asbestos.

- Regulated ACM was identified in 12" X 12" grey, white, and green cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 14 and 15 under FT10 and FT11. The floor tile and mastic were represented by samples FT12-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos and the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" beige with tan cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 9, 11, and 13. The floor tile and mastic were represented by samples FT14-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile and the mastic contained 8% chrysotile asbestos.
- Approximately 7,000 SF of 12" X 12" white fissure and pinhole ceiling tile mastic is presumed asbestos containing in room 20 and the east office area.
- Regulated ACM was identified in 9" X 9" brown with black streaks floor tile and mastic (approximately 4,000 SF) in Rooms 43, 46, 89, 88 and hallway, hallway near Room 43, hallway north exit near elm street, hallway south of boiler room hall, hallway west of boiler room, and room south of mechanical maintenance room and hallway. The floor tile and mastic were represented by samples FT15-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile and the mastic contained 5% chrysotile asbestos.
- Regulated ACM was identified in white ceiling texture (approximately 500 SF) in Room 88 and hallway, and hallway west and south of boiler room. The ceiling texture was represented by samples CTX-1, -2, and -3. Laboratory results indicated that the ceiling texture contained 5% chrysotile asbestos.
- Regulated ACM was identified in the wall texture behind the white plastic wall paneling (approximately 350 SF) in the hallway south of the boiler room. The wall texture was represented by samples WM1-1, -2, and -3. Laboratory results indicated that the wall texture contained 4% chrysotile asbestos.
- Regulated ACM was identified in tan linoleum (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile. The linoleum was represented by samples LIN1-1, -2, and -3. Laboratory results indicated that the linoleum contained 25% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile and linoleum. The floor tile was represented by samples FT16-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" tan floor tile (approximately 1,800 SF) in Rooms 36, 39-42, and 70, and under the carpet in hallway east of Room 46. The floor tile was represented by samples FT17-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" cream with lime green and white streaks floor tile (approximately 700 SF) in the courtroom. The floor tile was represented by samples FT18-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" cream with black and brown streaks floor tile (approximately 525 SF) in Rooms 62 and 63. The floor tile was represented by samples

FT19-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.

- Regulated ACM was identified in airocell pipe insulation (approximately 300 linear feet [LF]) on the east side of the first floor and boiler room. The airocell was represented by samples TSI-1, -2, and -3. Laboratory results indicated that the airocell contained 60% chrysotile asbestos.
- Regulated ACM was identified in joint insulation (approximately 175 joints) on the east side of the first floor and boiler room. The joint insulation was represented by samples TSIJ-1, -2, and -3. Laboratory results indicated that the joint insulation contained 30% chrysotile asbestos.
- Regulated ACM was identified in 4" X 12" brown floor tile and mastic (approximately 10 SF) in Room 48 southwest closet. The floor tile and mastic were represented by samples FT29-1, -2, and -3. Laboratory results indicated that the floor tile contained 10% chrysotile and the mastic contained 5% chrysotile asbestos.

City Hall – Second Floor

- Regulated ACM was identified in ceramic tile mastic (approximately 1,000 SF) on the second floor in bathrooms 71, 74, 75, 77, 78, and 79. The mastic was represented by samples CTM-1, -2, and -3. Laboratory results indicated that the mastic contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" beige with brown streaks floor tile mastic (approximately 8,000 SF) on the second-floor hallway and Rooms 71, 74 through 79, and storage and maintenance area. The mastic was represented by samples FT20-1, -2, and -3. Laboratory results indicated that the mastic contained 6% chrysotile asbestos.
- Regulated ACM was identified in yellow linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN2-1, -2, and -3. Laboratory results indicated that the linoleum contained 20% chrysotile asbestos.
- Regulated ACM was identified in grey linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN3-1, -2, and -3. Laboratory results indicated that the linoleum contained 65% chrysotile asbestos.
- Regulated ACM was identified in black sink undercoat (approximately 5 SF) in the narcotics room. The sink undercoat was represented by samples SU-1, -2, and -3. Laboratory results indicated that the sink undercoat contained 5% chrysotile asbestos.
- Regulated ACM was identified in grey floor tile under linoleum (approximately 1,100 SF of floor tile and linoleum) in the men's locker room. The floor tile was represented by samples FT21-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the linoleum contained 60% asbestos.
- Regulated ACM was identified in brown and tan pattern linoleum (approximately 10 SF) in Room 81 on the bottom shelf. The linoleum was represented by samples LIN4-1, -2, and -3. Laboratory results indicated that the linoleum contained 15% chrysotile asbestos.

City Hall – Exterior

- Regulated ACM was identified in transite panels (approximately 1,000 SF) on the south exterior soffit. The transite was represented by samples TRAN-1, -2, and -3. Laboratory results indicated that the transite contained 20% chrysotile asbestos.
- Regulated ACM was identified in brown window caulk (approximately 160 LF) on the south exterior windows. The caulk was represented by samples C-1, -2, and -3. Laboratory results indicated that the caulk contained 5% chrysotile asbestos.
- Regulated ACM was identified in black expansion caulk (approximately 50 LF) on the north loading dock. The caulk was represented by samples EC2-1, -2, and -3. Laboratory results indicated that the caulk contained 10% chrysotile asbestos.
- Regulated ACM was identified in brown and off-white window caulk (approximately 450 LF) on the north loading dock. The caulk was represented by samples C2-1, -2, and -3. Laboratory results indicated that the white caulk contained 5% chrysotile asbestos.

Evidence Building - No ACM found in the evidence building.

All regulated ACM listed above should be removed by a licensed asbestos abatement contractor before demolition work disturbs the material. The removed waste must be transported to a disposal site able to accept both friable and non-friable ACM. If the building is to be renovated and any of the above ACM materials are not to be disturbed, they may remain in place.

LBP

City Hall – First Floor

- Approximately 300 SF of white ceramic floor tile in Room 3 tested positive for LBP, with x-ray fluorescence (XRF) reading of 6.72 milligrams per square centimeter (mg/cm²).
- Approximately 44 SF of green ceramic wall tile in Room 22 tested positive for LBP, with XRF reading of 8.74 mg/cm².
- Approximately 1,500 SF of white wall plaster in the maintenance area tested positive for LBP, with XRF reading of 1.21 mg/cm².
- Approximately 50 SF of beige ceramic floor tile in the south entryway tested positive for LBP, with XRF reading of 8.22 mg/cm².

City Hall – Parking Garage

- Approximately 100 LF of yellow painted concrete parking spaces in the parking garage tested positive for LBP, with XRF reading of 5.77 mg/cm².

City Hall – Second Floor

- Approximately 300 SF of yellow ceramic wall tile in Room 72 tested positive for LBP, with XRF reading of 4.19 mg/cm².
- Approximately 400 SF of light pink ceramic wall tile in Rooms 71 and 74 tested positive for LBP, with XRF reading of 4.57 mg/cm².
- Approximately 800 SF of cream ceramic wall tile in Rooms 72, 75, 77, 78, and 79 tested positive for LBP, with XRF reading of 4.81 mg/cm².
- Approximately 100 SF of green ceramic wall tile in the second-floor center hall bathroom tested positive for LBP, with XRF reading of 12.77 mg/cm².
- Approximately 50 SF of green ceramic wall tile in the narcotics room tested positive for LBP, with XRF reading of 14.26 mg/cm².
- Approximately 700 SF of cream/yellow ceramic wall tile in the narcotics bathroom tested positive for LBP, with XRF reading of 8.34 mg/cm².
- Approximately 40 SF of white ceramic floor tile in the narcotics bathroom tested positive for LBP, with XRF reading of 3.98 mg/cm².

Evidence Building

- Approximately 40 SF of white wood door in the back room of the evidence building tested positive for LBP, with XRF reading of 2.97 mg/cm².

The U.S. Department of Housing and Urban Development (HUD) considers LBP as paint with lead levels above 1.0 mg/cm². If the LBP surfaces are impacted during renovations or during demolition, Tetra Tech recommends that the contractor conducting the renovations comply with Occupational Safety and Health Administration (OSHA) Lead in Construction Standard, Title 29 of *Code of Federal Regulations* (CFR), Part 1926.62. If the materials containing LBP are removed during renovation activities, a sample should be collected from the debris pile for a Toxicity Characteristic Leaching Procedure (TCLP) analysis (40 *Code of Federal Regulations* [CFR] 261.24); representative samples should be collected and analyzed for all eight metals specified in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). This would allow determination of the proper method of disposal of the materials.

PCBs

Laboratory results indicated that no sampled building materials contained concentrations of PCBs above 50 parts per million (ppm).

HW

HW and other hazardous materials were inventoried during the survey. Tetra Tech recommends proper disposal of the materials based on their characteristics prior to demolition of the subject property buildings.

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct a Hazardous Materials Survey (Survey) of the Oak Street City Hall (formerly Poplar Bluff City Hall) and associated evidence building (warehouse) at 101 Oak Street, Poplar Bluff, Missouri (subject property).

The two-story City Hall encompasses approximately 35,932 square feet (SF), and the single-story evidence building (warehouse) encompasses approximately 2,970 SF. The City Hall, constructed in approximately 1950, has been used for a hospital, clinic, city hall, police department, and municipal court, and has undergone numerous additions. Construction date of the evidence building is unknown, but likely around the construction date of the City Hall (SCS Engineers, Inc. [SCS] 2018). The scope of the survey included an inspection of the subject property buildings for presence of asbestos-containing materials (ACM), polychlorinated biphenyls (PCB) in caulk, and lead-based paint (LBP). As part of this survey, Tetra Tech also inventoried containerized hazardous waste (HW) and other hazardous materials. Appendix A includes a photolog of observations during the survey.

Tetra Tech's Project Manager for the survey was Ms. Michelle Handley. The field team included Ms. Megan Sawyer, State of Missouri-licensed Asbestos and LBP Inspector, and Mr. Zach Usher, State of Missouri-licensed Asbestos Inspector. Inspector certifications are in Appendix B. Because of limitations on destructive sampling methods, additional suspect materials may be present within walls, voids, or other concealed areas. Section 11.0 specifies assumptions and deviations regarding the Survey at the subject property. Prior to any renovations or demolition of the subject property building, further survey work may be needed to comply with all local, state, and federal requirements regulating ACM, LBP, PCBs, or HW.

Tetra Tech conducted the survey November 4 through 8, 2019. The purpose of the asbestos survey was to evaluate the subject property buildings for presence, quantity, locations, and characterization of ACM that may require abatement prior to any development activities, in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations as adopted by EPA. The intent of the asbestos NESHAP regulations is to protect the public (and workers) by minimizing release of asbestos fibers during activities involving processing, handling, and disposal of ACM. Inhalation of asbestos fibers can cause cancer and other lung diseases (Agency for Toxic Substances and Disease Registry [ATSDR] 2008). The survey accorded with industry standard practice for hazardous materials surveys. Asbestos samples were collected in accordance with NESHAP regulations as adopted by the EPA.

Tetra Tech screened for presence, quantity, and locations of LBP exceeding lead hazard levels, which would require Occupational Safety and Health Administration (OSHA) worker safety precautions during development activities. The subject property buildings were constructed prior to 1978, and LBP likely was used in build-outs of the structures. The LBP survey proceeded according to protocols similar to the single-family housing inspection procedures in U.S. Department of Housing and Urban Development (HUD) guidelines (HUD 1997). Tetra Tech screened paint-covered surfaces by use of a Thermo Scientific XL3t-600 x-ray fluorescence (XRF) spectrometer. Thermo Scientific XL3t-600 is a state-of-the-art XRF spectrum analyzing system for quantitative measurement of lead in paint on various substrates.

Because portions of the subject property buildings could have been constructed between 1950 and 1978, PCBs may be present within the subject property buildings in materials such as caulk associated with windows, doors, and masonry columns. Tetra Tech collected samples of suspect materials for laboratory analysis to determine presence, quantity, and locations of PCBs exceeding the action level, which would require OSHA worker safety precautions during development remodeling activities.

Finally, as part of the survey, Tetra Tech completed an inventory of HW and hazardous materials within the subject property buildings. The inventory included but was not limited to the following types of materials: thermostats and fluorescent light bulbs possibly containing mercury, fluorescent light ballasts potentially containing PCBs, emergency lighting and exit signs that house batteries containing heavy metals, appliances containing Freon (e.g., old refrigerators), product containers holding hazardous materials (such as cleaning supplies, paints, etc.), and any other HW items that may have to be removed during renovation/demolition of the buildings. Tetra Tech made every effort to provide a complete inventory of these items; however, given the large size of the subject property buildings and the disorderly distribution of these items inside the buildings, Tetra Tech cannot guarantee an accounting of every item.

Tetra Tech submitted to EPA a site-specific quality assurance project plan (QAPP) in support of Survey activities in August 2019; EPA approved the QAPP via email in October 2019, prior to the Survey at the subject property (Tetra Tech 2019). Field activities accorded with the QAPP, except where noted.

Tetra Tech prepared this report in accordance with generally accepted industrial hygiene practices and procedures. This report does not cover or comment on structural areas not assessed either visibly or by sample collection. The data evaluation and assessment stated herein constitute a professional opinion; no

other warranty is expressed or implied. Section 11.0 specifies assumptions and deviations regarding the Survey at the subject property.

Tetra Tech provided these services consistent with the level and skill ordinarily exercised by members of the profession currently practicing under similar conditions. This statement is in lieu of other statements either expressed or implied. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document, the findings, conclusions, or recommendations is at the risk of said user. This survey report does not warrant against future operations or conditions that may not be consistent with its recommendations. Moreover, because of some limitations on destructive sampling during the survey, completion of the Survey does not guarantee identification of all ACMs or PCBs—hazardous materials may be present in voids of walls or ceilings.

Section 2.0 of this report describes the structure at the subject property. Section 3.0 specifies field and analytical protocols for the ACM survey. Section 4.0 presents field and analytical protocols for the PCB survey. Section 5.0 presents field protocols for the HW and hazardous materials inventory. Section 6.0 presents asbestos findings. Section 7.0 describes LBP findings. Section 8.0 conveys PCB findings. Section 9.0 describes HW and hazardous materials inventory findings. Section 10.0 offers recommendations based on survey findings. Section 11.0 specifies assumptions and deviations. Section 12.0 lists sources referenced during development of this report.

2.0 SUBJECT PROPERTY BUILDING

The subject property includes two buildings—a single-story evidence building and the two-story City Hall. Since its construction in approximately 1950, the former City Hall building was used for various purposes, including a hospital, clinic, city hall, police department, and municipal court. It is currently vacant in in disrepair. The current function of the evidence building is to hold evidence for criminal investigations. Its construction date is unknown, but is it presumed to have been constructed at the same time as City Hall. Combined square footage of the two buildings is approximately 38,722 SF (SCS 2018). The buildings are within an industrial and commercial setting with retail development. The City Hall is constructed of brick, mortar, and concrete, and a parking garage is in its basement. Interior finishes include drywall and plaster walls and ceilings, and lay-in acoustical tile ceilings. Flooring materials include terrazzo, carpet, vinyl floor tile, linoleum, and concrete. The evidence building consists of metal walls and concrete floors, with one back room with vinyl sheet flooring and lay-in acoustical ceiling tiles.

3.0 ACM FIELD SURVEY AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the interior of the subject property buildings. Minor demolition of materials (destructive sampling) was required during the survey effort. The inspector took care to ensure that the subject property remained unoccupied during sample collection. Collection of samples of suspect ACM accorded with National Emission Standards for Hazardous Air Pollutants (NESHAP) as adopted by EPA, and with Asbestos Hazard and Emergency Response Act of 1986 (AHERA) protocols. AHERA defines “asbestos-containing material” (ACM) as any material or product that contains more than 1 percent (%) asbestos. Suspected ACMs were grouped as homogeneous areas if the material was similar in appearance and texture; however, if the inspector decided that a material (for example, wall texturing) was not similar in appearance and texture to other materials in the subject property buildings, the inspector distinguished the material as unique and collected samples of each unique material accordingly. Because of limitations on destructive sampling methods, additional suspect materials not detected may be present in walls, voids, or other concealed areas. Section 11.0 specifies assumptions and deviations regarding the Survey of the subject property buildings.

Bulk samples of suspected ACM were collected to ensure that each distinct layer of material was represented in the sample. A wetting agent was applied to friable surfaces prior to sample collection to reduce potential for fiber release. All samples collected were placed in plastic bags, labeled, and sealed immediately upon collection. To prevent cross-contamination between samples, the sampling instruments were wiped clean by use of a wet, lint-free cloth after collection of each sample. A unique sample identification number was assigned to each sample.

The samples remained in the inspector’s custody until sent to the laboratory. Upon completion of sampling activities, the bulk samples were sent, along with Tetra Tech’s chain-of-custody documentation, to Quantem Laboratories (Quantem). Suspect ACM samples were analyzed per EPA Method 600/R-93/116 by Quantem via polarized light microscopy (PLM) analysis. Approximately 3% of samples determined by PLM analysis to contain less than 3% asbestos were analyzed via EPA Point Count 400 (EPA Method 600/R-93/116). Quantem is a National Voluntary Laboratory Accreditation Program (NVLAP)-certified laboratory. Section 6.0 of this report summarizes ACM analytical results. Sample locations are shown on Figures 1A, 1B, and 1C in Appendix C. Appendix D presents ACM analytical results and chain-of-custody forms for the bulk samples.

4.0 LBP SCREENING AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the buildings. HUD *Guidelines for the Evaluation and Control of LBP in Housing* (1997) suggests that paint applied before 1978 could contain lead.

An XRF screening of suspected LBP was performed according to protocols similar to the single-family housing inspection procedures in the HUD *Guidelines*. Tetra Tech utilized a Thermo Scientific XL3t-600 XRF analyzer to perform the LBP screening. The Thermo Scientific XL3t-600 is a state-of-the-art XRF spectrum analyzing system for quantitative measurement of lead in paint on various substrates. Tetra Tech performed XRF screening of suspect painted surfaces that possibly would be impacted during renovation activities.

Tetra Tech utilized the XRF “Lead Paint Mode” for testing, standardized per the equipment instruction manual, and programmed the unit with an action level of 1.0 milligram per square centimeter (mg/cm²). The XL3t-600 XRF spectrometer automatically adjusts the measurement time to be the least time needed to make a definitive measurement based on the action level. Paint containing greater than or equal to 1.0 mg/cm² lead by XRF testing or 1.0 mg/cm² lead by laboratory analysis is considered LBP.

Tetra Tech performed XRF calibration checks on the XL3t-600 XRF spectrometer according to Thermo Scientific’s recommended protocol and the HUD *Guidelines*. These quality control readings were used to monitor performance of the XL3t-600 XRF spectrometer. Calibration-check readings were taken after every hour of operation from a Standard Reference Material (SRM) paint film, developed by the National Institute of Standards and Technology (NIST). Section 8.0 of this report summarizes results from XRF screening of samples of painted surfaces collected at the subject property.

5.0 PCB FIELD SURVEY AND ANALYTICAL PROTOCOLS

Tetra Tech made every effort to inspect all areas of the subject property buildings. Minor demolition of materials (destructive sampling) was required during the survey effort. The inspector took care to ensure that the areas remained unoccupied during sample collection. Samples of caulk possibly containing PCBs were collected following EPA guidance. EPA has set an action level of 50 parts per million (ppm) for PCBs in materials, and that was the benchmark used for this survey. Suspected PCB-containing caulk materials were grouped as homogeneous areas if the material was similar in appearance and texture; however, if the inspector decided that a material was not similar in appearance and texture to other materials in the building, or that the material was associated with a different building construction date, the inspector distinguished the material as unique and collected samples of each unique material accordingly. Section 11.0 specifies assumptions and deviations regarding the Survey of the subject property buildings.

Bulk samples were collected to ensure that only suspect PCB-containing caulk materials were represented in the sample. A wetting agent was applied to the material prior to sample collection to reduce potential for particulate release. All samples collected were placed in plastic bags, labeled, and sealed immediately upon collection. To prevent cross-contamination between samples, the sampling instruments were wiped clean by use of a wet, lint-free cloth after collection of each sample. A unique sample identification number was assigned to each sample.

The samples remained in the inspector's custody until sent to the laboratory. Upon completion of sampling activities, the bulk samples were sent, along with Tetra Tech's chain-of-custody documentation, to ALS Environmental (ALS) laboratory in Holland, Michigan. Bulk samples of suspect PCB-containing caulk materials were analyzed via EPA Method 8082 by ALS. Appendix E includes PCB analytical results and chain-of-custody forms for those bulk samples, and Section 8.0 summarizes analytical results from those samples.

6.0 HAZARDOUS WASTE AND OTHER HAZARDOUS MATERIALS INVENTORY

Tetra Tech completed an inventory of HW and other potentially hazardous materials in the subject property buildings. This inventory included but was not limited to the following types of materials: thermostats and fluorescent light bulbs possibly containing mercury, fluorescent light ballasts potentially containing PCBs, emergency lighting and exit signs that house batteries containing heavy metals, appliances containing Freon, product containers holding hazardous materials (such as cleaning supplies, paint, etc.), and any other HW items that may have been present.

Tetra Tech used an inventory field sheet and went through every room in the subject property buildings identifying, categorizing, and quantifying HW and hazardous materials. Tetra Tech made every effort to provide a complete inventory of these items; however, Tetra Tech cannot guarantee an accounting of every item. The exterior of the building was not included in this inventory (excluding air conditioning units), based on professional judgment of the assessment team. Items at the subject property that would not be affected during any renovation activities—for example, pole-mounted transformers that may contain PCBs—were not included in the inventory. Notably, the assessment team walked the perimeter of the subject property buildings to identify any drums or other large containers that may contain hazardous waste; at the time of this assessment, no materials fitting this description had been identified outside the subject property building. A summary of HW and hazardous materials inventoried during the survey is in Section 9.0 of this report.

7.0 ACM FINDINGS

The laboratory report in Appendix D presents PLM results, summarized in Table 1 below, from samples of suspect ACM collected at the buildings on the subject property. Bolded results in Table 1 indicate where asbestos was detected at concentration greater than 1%, and italicized results indicate presumed ACM. Sample locations and confirmed ACM areas are shown on Figures 1A, 1B, and 1C in Appendix C.

TABLE 1

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
City Hall - First Floor							
1	FT-1	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
2	FT-2	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
3	FT-3	12" X 12" Grey Stick on Floor Tile with Associated Mastic	Main Entrance	NF	ND	NA	NA
4	FT1-1	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87. Black Mastic in Southwest Hallway Only	NF	Floor Tile – ND, Black Mastic – 8% Chry	NA	Black Mastic – 600 SF
5	FT1-2	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87	NF	Floor Tile – ND, Yellow Mastic – ND	NA	NA
6	FT1-3	12" X 12" White with Black Streaks Floor Tile	Southwest Hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87	NF	Floor Tile – ND, Yellow Mastic – ND	NA	NA
7	FT2-1	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
8	FT2-2	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
9	FT2-3	12" X 12" Pink with Black Dots Floor Tile with Associated Mastic	Room 16	NF	ND	NA	NA
10	Terrazzo-1	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
11	Terrazzo-2	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
12	Terrazzo-3	Tan Terrazzo	West Side of First Floor	NF	ND	NA	NA
13	CB-1	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	ND	NA	NA
14	CB-2	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
15	CB-3	4" Black Cove Base/Mastic	Rooms 16, 27, 28, 31, and 32	NF	Black Cove Base – ND, Yellow Mastic – ND, Brown Mastic – ND, Tan Joint Compound – 2% Chry ³	NA	NA
16	CT-1	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
17	CT-2	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
18	CT-3	2' X 4' Fissured and Pinhole Ceiling Tile	Throughout First Floor	F	ND	NA	NA
19	WM-1	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
20	WM-2	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
21	WM-3	Wood Wall Panel Mastic	Rooms 16 and 10	NF	ND	NA	NA
22	CM-1	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
23	CM-2	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
24	CM-3	Yellow Carpet Mastic	Throughout First Floor	NF	ND	NA	NA
25	FT3-1	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
26	FT3-2	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
27	FT3-3	Beige 12" X 12" Floor Tile with Associated Mastic	North Section of Room 16	NF	ND	NA	NA
28	FT4-1	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA
29	FT4-2	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA
30	FT4-3	12" X 12" Beige with Pink Streaks Floor Tile with Associated Mastic	Room 25	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
31	FT5-1	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF	Floor Tile – 3% Chry, Mastic – ND	Floor Tile – 0.75	NA
32	FT5-2	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF		Floor Tile – <0.25	NA
33	FT5-3	12" X 12" Thin Brown with Tan Streaks Floor Tile with Associated Mastic	Elevator	NF		Floor Tile – <0.25	NA
34	FT6-1	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF	Floor Tile – 8% Chry, Mastic – ND	NA	Floor Tile- 300 SF
35	FT6-2	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF		NA	
36	FT6-3	9" X 9" Grey with Red and Brown Streaks Floor Tile with Associated Mastic	Rooms 12 and 23	NF		NA	
37	FT7-1	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
38	FT7-2	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
39	FT7-3	12" X 12" White with Black Dots Floor Tile with Associated Mastic	Room 20	NF	ND	NA	NA
40	CT1-1	12" X 12" White Fissured and Pinhole with Glue Pucks ⁴ Ceiling Tile	Room 20 and East Office Area	NF	ND	NA	7,000 SF
41	CT1-2	12" X 12" White Fissured and Pinhole with Glue Pucks ⁴ Ceiling Tile	Room 20 and East Office Area	NF	ND	NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
42	CT1-3	12" X 12" White Fissured and Pinhole with Glue Pucks ⁴ Ceiling Tile	Room 20 and East Office Area	NF	ND	NA	
43	CT2-1	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
44	CT2-2	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
45	CT2-3	2' X 4' Gypsum Ceiling Tile	Room 21 Bathroom, Room 22, and Storage Hall South of Elm Street	F	ND	NA	NA
46	CTM-1	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
47	CTM-2	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
48	CTM-3	Green Ceramic Wall Tile Mastic	Room 22	NF	ND	NA	NA
49	FT8-1	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF	Floor Tile – 5% Chry, Mastic – 10% Chry	NA	Floor Tile and Mastic-600 SF
50	FT8-2	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
51	FT8-3	9" X 9" Red Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
52	FT9-1	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF	Floor Tile – 6% Chry, Mastic – 10% Chry	NA	Floor Tile and Mastic-600 SF
53	FT9-2	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
54	FT9-3	9" X 9" Black Floor Tile with Associated Mastic	Rooms 21 and 22 Under 12" X 12" White Floor Tile	NF		NA	
55	FT10-1	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
56	FT10-2	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
57	FT10-3	12" X 12" Hot Pink Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
58	FT11-1	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
59	FT11-2	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
60	FT11-3	12" X 12" Turquoise Floor Tile with Associated Mastic	Rooms 14 and 15	NF	ND	NA	NA
61	FT12-1	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF	Yellow Mastic – ND, Floor Tile – 4% Chry, Black Mastic- 8% Chry	NA	Floor Tile and Mastic- 500 SF
62	FT12-2	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF		NA	
63	FT12-3	12" X 12" Grey, White, and Green Cobblestone Floor Tile with Associated Mastic	Rooms 14 and 15 – Under FT10 and FT11	NF		NA	
64	FT13-1	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF	Floor Tile – 3% Chry, Yellow Mastic – ND, Grey Leveling Compound – ND	Floor tile- 0.50 Chry	NA
65	FT13-2	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF		Floor tile- 0.75 Chry	NA
66	FT13-3	12" X 12" Tan with Brown Streaks Floor Tile with Associated Mastic	Room 10 and Hallway Near Room 48	NF		Floor tile- 0.25 Chry	NA
67	FT14-1	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF	Floor Tile – 4% Chry, Black Mastic – 8% Chry	NA	Floor Tile and Mastic- 500 SF
68	FT14-2	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF		NA	
69	FT14-3	12" X 12" Beige with Tan Cobblestone Floor Tile with Associated Mastic	Rooms 9, 11, and 13	NF		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
70	SU-1	White Sink Undercoat	Room 48	F	ND	NA	NA
71	SU-2	White Sink Undercoat	Room 48	F	ND	NA	NA
72	SU-3	White Sink Undercoat	Room 48	F	ND	NA	NA
73	CTG-1	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
74	CTG-2	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
75	CTG-3	White Ceramic Tile Grout	Room 3	NF	ND	NA	NA
76	LIN-1	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
77	LIN-2	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
78	LIN-3	Brown Linoleum	Room 48, B67 and 68	F	ND	NA	NA
79	FT15-1	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF	Floor Tile – 8% Chry, Brown Mastic – ND, Black Mastic – 5% Chry	NA	Floor Tile and Black Mastic-4,000 SF
80	FT15-2	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF		NA	
81	FT15-3	9" X 9" Brown with Black Streaks Floor Tile with Associated Mastic	Rooms 43, 46, 89, Room 88 and Hallway, Hallway Near Room 43, Hallway North Exit Near Elm Street, Hallway South of Boiler Room Hall, Hallway West of Boiler Room, and Room South of Mechanical Maintenance Room and Hallway	NF		NA	
82	CTX-1	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F	5% Chry	NA	500 SF
83	CTX-2	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F		NA	
84	CTX-3	White Ceiling Texture	Room 88 and Hallway, and Hallway West and South of Boiler Room	F		NA	
85	FP-1	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA
86	FP-2	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
87	FP-3	Brown Fireproofing	Southeast Side of Building	F	ND	NA	NA
88	CTG1-1	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
89	CTG1-2	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
90	CTG1-3	White Tile Grout	Bathrooms B34, B35, B45, B65, and B66	NF	ND	NA	NA
91	CB1-1	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
92	CB1-2	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
93	CB1-3	4" Tan Cove Base/Mastic	Bathrooms B67 and B68	NF	ND	NA	NA
94	CT2-1	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
95	CT2-2	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
96	CT2-3	12" X 12" White Pinhole Ceiling Tile	Hallway North Exit Near Elm Street, East Room 41, and Hallway North of Room 20	F	ND	NA	NA
97	WM1-1	White Plastic Wall Paneling	Hallway South of Boiler Room	F	Yellow Mastic – ND, Wall Texture – 4% Chry	NA	Wall Texture- 350 SF
98	WM1-2	White Plastic Wall Paneling	Hallway South of Boiler Room	F		NA	
99	WM1-3	White Plastic Wall Paneling	Hallway South of Boiler Room	F		NA	
100	CB2-1	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
101	CB2-2	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
102	CB2-3	4" Brown Cove Base/Mastic	Second-floor Hallway	NF	ND	NA	NA
103	LIN1-1	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F	25% Chry	NA	700 SF
104	LIN1-2	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F		NA	
105	LIN1-3	Tan Linoleum	Mechanical Maintenance Area and Hallway Under 12" X 12" White Floor Tile	F		NA	
106	FT16-1	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF	Floor Tile – 5% Chry, Mastic – ND	NA	Floor Tile- 700 SF
107	FT16-2	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
108	FT16-3	9" X 9" Red Floor Tile with Associated Mastic	Mechanical Maintenance Area and Hallway Under White 12" X 12" Floor Tile and LIN1-1, 2, and 3	NF		NA	
109	CM1-1	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
110	CM1-2	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
111	CM1-3	Wall Carpet Mastic	Room 20	NF	ND	NA	NA
112	CB3-1	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
113	CB3-2	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
114	CB3-3	Grey Cove Base/Mastic	Rooms 39 and 46	NF	ND	NA	NA
115	FT17-1	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF	Floor Tile – 8% Chry, Mastic – ND	NA	Floor Tile- 1,800 SF
116	FT17-2	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF		NA	
117	FT17-3	9" X 9" Tan Floor Tile with Associated Mastic	Rooms 36, 39-42, and 70, and Under Carpet in Hallway East of Room 46	NF		NA	
118	CT3-1	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
119	CT3-2	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
120	CT3-3	12" X 12" White Divot Ceiling Tile	Room 39	F	ND	NA	NA
121	CT4-1	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
122	CT4-2	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
123	CT4-3	12" X 12" Smooth White Ceiling Tile	Lower West Side of Room 39, West Side of Room 41, and Room 90	F	ND	NA	NA
124	FT18-1	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF	Yellow Mastic – ND, Floor Tile – 4% Chry, Yellow Mastic – ND	NA	Floor Tile- 700 SF
125	FT18-2	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
126	FT18-3	12" X 12" Cream Floor Tile with Lime Green and White Specks with Associated Mastic	Courtroom	NF		NA	
127	CTX1-1	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
128	CTX1-2	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
129	CTX1-3	Ceiling Texture on Drywall	Courtroom	F	ND	NA	NA
130	CT4-1	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
131	CT4-2	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
132	CT4-3	12" X 12" Fissured and Pinhole with No Glue Pucks	Hallway to Courtroom	F	ND	NA	NA
133	CT5-1	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
134	CT5-2	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
135	CT5-3	12" X 12" Bubbled Ceiling Tile	Room 90	F	ND	NA	NA
136	CM2-1	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
137	CM2-2	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
138	CM2-3	Black Carpet Mastic	Northeast Section	NF	ND	NA	NA
139	FT19-1	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF	Floor Tile – 8% Chry, Yellow Mastic – ND	NA	Floor Tile-525 SF
140	FT19-2	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF		NA	
141	FT19-3	9" X 9" Cream with Black and Brown Streaks Floor Tile with Associated Mastic	Rooms 62 and 63	NF		NA	
142	TSI-1	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F	60% Chry	NA	300 LF
143	TSI-2	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
144	TSI-3	Airocell Pipe Insulation	East Side of the First Floor and Boiler Room	F		NA	
145	TSIJ-1	Joint Insulation	East Side of the First Floor and Boiler Room	F	30% Chry	NA	175 Joints
146	TSIJ-2	Joint Insulation	East Side of the First Floor and Boiler Room	F		NA	
147	TSIJ-3	Joint Insulation	East Side of the First Floor and Boiler Room	F		NA	
148	FT29-1	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF	Brown Floor Tile – 10% Chry, Black Mastic – 5% Chry	NA	Floor Tile and Mastic- 10 SF
149	FT29-2	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF		NA	
150	FT29-3	4" X 12" Brown Floor Tile with Associated Mastic	Room 48 Southwest Closet	NF		NA	
151	DWJC-1	Drywall with Joint Compound	West Side	NF	ND	NA	NA
152	DWJC-2	Drywall with Joint Compound	West Side	NF	ND	NA	NA
153	DWJC-3	Drywall with Joint Compound	West Side	NF	ND	NA	NA
154	DWJC1-1	Drywall with Joint Compound	East Side	NF	<1% Chry	NA	NA
155	DWJC1-2	Drywall with Joint Compound	East Side	NF	<1% Chry	NA	NA
156	DWJC1-3	Drywall with Joint Compound	East Side	NF	ND	NA	NA
157	DWJC1-4	Drywall with Joint Compound	East Side	NF	ND	NA	NA
158	DWJC1-5	Drywall with Joint Compound	East Side	NF	ND	NA	NA
159	PLSC-1	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
160	PLSC-2	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
161	PLSC-3	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
162	PLSC-4	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
163	PLSC-5	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
164	PLSC-6	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
165	PLSC-7	Plaster with Skim Coat	Throughout First Floor	NF	ND	NA	NA
166	SPLSC-1	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
167	SPLSC-2	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
168	SPLSC-3	Spray on Plaster Ceiling	Throughout First Floor	NF	ND	NA	NA
169	CB6-1	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
170	CB6-2	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
171	CB6-3	4" Pink Cove Base/Mastic	Room 48 Southwest Closet	NF	ND	NA	NA
City Hall – Second Floor							
172	CB4-1	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
173	CB4-2	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
174	CB4-3	8" Grey Cove Base/Mastic	Room 71	NF	ND	NA	NA
175	CTG2-1	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
176	CTG2-2	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
177	CTG2-3	Grey Ceramic Tile Grout	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	ND	NA	NA
178	CTM1-1	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF	4% Chry	NA	Mastic- 1,000 SF
179	CTM1-2	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF		NA	
180	CTM1-3	Ceramic Tile Mastic	Bathrooms in Rooms 71, 72, 74, 75, 77, 78, and 79	NF		NA	
181	FT20-1	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF	Floor Tile – 2% Chry, Black Mastic – 6% Chry	Floor Tile – 0.25 Chry	Floor Tile and Mastic- 8,000 SF
182	FT20-2	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF		Floor Tile – <0.25 Chry	
183	FT20-3	9" X 9" Beige with Brown Streaks Floor Tile with Associated Mastic	Hallway, Rooms 71, 74-79, and Storage and Maintenance Area	NF		Floor Tile – <0.25 Chry	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
184	CM3-1	Carpet Mastic	Throughout	NF	ND	NA	NA
185	CM3-2	Carpet Mastic	Throughout	NF	ND	NA	NA
186	CM3-3	Carpet Mastic	Throughout	NF	ND	NA	NA
187	CM4-1	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
188	CM4-2	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
189	CM4-3	Wall Carpet Mastic	Interview Room 79	NF	ND	NA	NA
190	WM2-1	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
191	WM2-2	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
192	WM2-3	Wood Wall Panel Mastic	Storage/Maintenance Room	NF	ND	NA	NA
193	CT6-1	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
194	CT6-2	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
195	CT6-3	12" X 12" White Divot Ceiling Tile	Narcotics Room	F	ND	NA	NA
196	LIN2-1	Yellow Linoleum	Half of the Narcotics Room	F	Yellow Mastic – ND, Linoleum – 20% Chry	NA	Linoleum- 350 SF
197	LIN2-2	Yellow Linoleum	Half of the Narcotics Room	F		NA	
198	LIN2-3	Yellow Linoleum	Half of the Narcotics Room	F		NA	
199	LIN3-1	Grey Linoleum	Half of the Narcotics Room	F	65% Chry	NA	350 SF
200	LIN3-2	Grey Linoleum	Half of the Narcotics Room	F		NA	
201	LIN3-3	Grey Linoleum	Half of the Narcotics Room	F		NA	
202	SU1-1	Black Sink Undercoat	Narcotics Room	F	5% Chry	NA	5 SF
203	SU1-2	Black Sink Undercoat	Narcotics Room	F		NA	
204	SU1-3	Black Sink Undercoat	Narcotics Room	F		NA	
205	CTM2-1	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
206	CTM2-2	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
207	CTM2-3	Green Ceramic Tile Mastic	Narcotics Room Kitchen	NF	ND	NA	NA
208	FT21-1	Grey Floor Tile Under Linoleum	Men's Locker Room	F	Tan Sheet Vinyl Backing – 60% Chry, Grey Floor Tile – 5% Chry, Black Mastic – ND	NA	Linoleum and Floor Tile - 1,100 SF
209	FT21-2	Grey Floor Tile Under Linoleum	Men's Locker Room	F		NA	
210	FT21-3	Grey Floor Tile Under Linoleum	Men's Locker Room	F		NA	

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
211	CT7-1	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
212	CT7-2	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
213	CT7-3	2' X 4' Cream Pinhole and Texture Ceiling Tile	Men's Locker Room	F	ND	NA	NA
214	FT22-1	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF	Floor Tile – ND, Brown Mastic – 3% Chry	Mastic- 0.50 Chry	NA
215	FT22-2	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF		Mastic- <0.25 Chry	NA
216	FT22-3	12" X 12" Grey with White and Black Specks Floor Tile with Associated Mastic	Room 81	NF		Mastic- 0.75 Chry	NA
217	LIN4-1	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F	15% Chry	NA	10 SF
218	LIN4-2	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F		NA	
219	LIN4-3	Brown with Tan Pattern Linoleum	Bottom of Shelf in Room 81	F		NA	
220	FT23-1	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF	Brown Mastic – 3% Chry, Floor Tile – ND, Brown Mastic – ND	Mastic- <0.25 Chry	NA
221	FT23-2	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF		Mastic- <0.25 Chry	NA
222	FT23-3	12" X 12" Blue with Black and White Specks Floor Tile with Associated Mastic	Hallway East of Room 85, Rooms 81 and 84	NF		Mastic- 0.25 Chry	NA
223	LIN5-1	Brown Linoleum Strips	Women's Locker Room and Room 84	F	Linoleum – ND, Brown Mastic – 3% Chry	Mastic- <0.25 Chry	NA
224	LIN5-2	Brown Linoleum Strips	Women's Locker Room and Room 84	F		Mastic- <0.25 Chry	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
225	LIN5-3	Brown Linoleum Strips	Women's Locker Room and Room 84	F		Mastic- <0.25 Chry	NA
226	FT24-1	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
227	FT24-2	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
228	FT24-3	12" X 12" Tan with Black, Grey and White Specks Floor Tile with Grid Pattern on Bottom	Rooms 82, 83, and 85; Second-floor Central Hallway; Hallway Near Room 85; Armory; and Women's Locker Room	NF	ND	NA	NA
229	CB5-1	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
230	CB5-2	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
231	CB5-3	4" Light Blue Cove Base/Mastic	Room 85 and South of North Stairwell	NF	ND	NA	NA
232	FT26-1	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF	Floor Tile – ND, Brown Mastic – 3% Chry	Mastic- 0.50 Chry	NA
233	FT26-2	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF		Mastic- 0.75 Chry	NA
234	FT26-3	9" X 9" Grey with White and Black Specks Floor Tile	North Stairwell	NF		Mastic- <0.25 Chry	NA
235	FT27-1	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF	Floor Tile – 3% Chry, Yellow Mastic – ND	Floor tile- 0.75 Chry	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
236	FT27-2	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF		Floor tile- 0.25 Chry	NA
237	FT27-3	12" X 12" Thin Tan Floor Tile (Top Layer) with Associated Mastic	Elevator	NF		Floor tile- <0.25 Chry	NA
238	FT28-1	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
239	FT28-2	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
240	FT28-3	Green Unknown Size Floor Tile (Bottom Layer)	Elevator	NF	ND	NA	NA
241	PLSC1-1	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
242	PLSC1-2	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
243	PLSC1-3	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
244	PLSC1-4	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
245	PLSC1-5	Plaster System with Skim Coat	Throughout	NF	ND	NA	NA
City Hall – Exterior							
246	TRAN-1	Transite Panels	South Soffit	NF	20% Chry	NA	1,000 SF
247	TRAN-2	Transite Panels	South Soffit	NF		NA	
248	TRAN-3	Transite Panels	South Soffit	NF		NA	
249	C-1	Brown Caulk	South Windows	NF	5% Chry	NA	160 LF
250	C-2	Brown Caulk	South Windows	NF		NA	
251	C-3	Brown Caulk	South Windows	NF		NA	
252	EC-1	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
253	EC-2	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
254	EC-3	Black Expansion Caulk	East and West Entrances	NF	ND	NA	NA
255	EC1-1	White Expansion Caulk	Southside	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
256	EC1-2	White Expansion Caulk	Southside	NF	ND	NA	NA
257	EC1-3	White Expansion Caulk	Southside	NF	ND	NA	NA
258	EC2-1	Black Expansion Caulk	North Loading Dock	NF	10% Chry	NA	50 LF
259	EC2-2	Black Expansion Caulk	North Loading Dock	NF		NA	
260	EC2-3	Black Expansion Caulk	North Loading Dock	NF		NA	
261	C1-1	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
262	C1-2	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
263	C1-3	Grey Metal Door Caulk	North Metal Door	NF	ND	NA	NA
264	STUCCO-1	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
265	STUCCO-2	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
266	STUCCO-3	Tan Stucco	North Awning, Southwest Entrance, Northwest Entrance, West Entrance Wall, and Awning	NF	ND	NA	NA
267	SS-1	Siding Shingles	Westside	NF	ND	NA	NA
268	SS-2	Siding Shingles	Westside	NF	ND	NA	NA
269	SS-3	Siding Shingles	Westside	NF	ND	NA	NA
270	VP-1	Vapor Barrier	Westside	F	ND	NA	NA
271	VP-2	Vapor Barrier	Westside	F	ND	NA	NA
272	VP-3	Vapor Barrier	Westside	F	ND	NA	NA
273	EC3-1	Tan Expansion Caulk	Westside	NF	ND	NA	NA
274	EC3-2	Tan Expansion Caulk	Westside	NF	ND	NA	NA
275	EC3-3	Tan Expansion Caulk	Westside	NF	ND	NA	NA
276	C2-1	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF	Brown Caulk – ND, White Caulk – 5% Chry	NA	White Caulk- 450 LF
277	C2-2	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF		NA	
278	C2-3	Brown and Off-White Caulk	Windows on the Second Floor West and Southwest Sides	NF		NA	
279	C3-1	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
280	C3-2	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA
281	C3-3	Clear Caulk	Windows on the First Floor West Side	NF	ND	NA	NA
282	C4-1	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
283	C4-2	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
284	C4-3	Grey Caulk	Doors on the Northwest Side	NF	ND	NA	NA
285	G-1	Black Glazing	Southside Windows	NF	ND	NA	NA
286	G-2	Black Glazing	Southside Windows	NF	ND	NA	NA
287	G-3	Black Glazing	Southside Windows	NF	ND	NA	NA
288	C6-1	Light Brown Caulk	South Side Door	NF	ND	NA	NA
289	C6-2	Light Brown Caulk	South Side Door	NF	ND	NA	NA
290	C6-3	Light Brown Caulk	South Side Door	NF	ND	NA	NA
City Hall – Roof							
291	RC-1	Roof Core	Northwest Roof	NF	ND	NA	NA
292	RC-2	Roof Core	Northwest Roof	NF	ND	NA	NA
293	RC-3	Roof Core	Northwest Roof	NF	ND	NA	NA
294	FL-1	Roof Flashing	Northwest Roof	NF	ND	NA	NA
295	FL-2	Roof Flashing	Northwest Roof	NF	ND	NA	NA
296	FL-3	Roof Flashing	Northwest Roof	NF	ND	NA	NA
297	CS-1	Curb Sealant	Northwest Roof	NF	ND	NA	NA
298	CS-2	Curb Sealant	Northwest Roof	NF	ND	NA	NA
299	CS-3	Curb Sealant	Northwest Roof	NF	ND	NA	NA
Evidence Building							
300	FT30-1	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
301	FT30-2	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
302	FT30-3	12" X 12" White Floor Tile with Associated Mastic	Back Room	NF	ND	NA	NA
303	G1-1	White Window Glaze	Back Room	NF	ND	NA	NA
304	G1-2	White Window Glaze	Back Room	NF	ND	NA	NA
305	G1-3	White Window Glaze	Back Room	NF	ND	NA	NA
306	CB7-1	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA

TABLE 1 (Continued)

**SUMMARY OF RESULTS FROM LABORATORY ANALYSES FOR SUSPECT ACM
101 OAK STREET, POPLAR BLUFF, MISSOURI**

Figure Key	Sample ID	Material Description	Material Locations	Friable (F)/ Non-Friable (NF)	Analytical Result (% ACM ¹)	PLM 400 Point Count Results ²	Quantity
307	CB7-2	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA
308	CB7-3	4" Brown Cove Base/Mastic	Back Room	NF	ND	NA	NA
No suspect asbestos samples found on roof or exterior of Evidence Building							

Notes:

Bolded result indicates detection of ACM.

Italicized result indicates PACM.

Color description of a material may vary between field observation and laboratory description.

Samples are in a different order than the chain of custody. The report and figure were written for clarity to the reader.

Room numbers were developed by Tetra Tech.

¹ AHERA defines ACM as any material or product that contains more than 1% asbestos.

² EPA defines ACM as greater than 1% asbestos. These materials contain <1% asbestos; therefore, the materials are not regulated for disposal purposes. However, the materials do contain asbestos, so if the materials are disturbed, OSHA regulations must be followed, and personal protective equipment must be used.

³ Joint compound was sampled with the cove base. The joint compound is homogenous with sample DWJC1, and is considered a system (drywall and joint compound) by EPA. Based on professional opinion, the joint compound and the homogenous sample DWJC1 can be treated as non-ACM.

⁴ Ceiling tile with associated mastic (glue puck) was sampled together; however, the lab did not analyze the mastic. Therefore, the mastic is considered PACM.

" Inches

' Feet

ACM Asbestos-containing material

AHERA Asbestos Hazard and Emergency Response Act of 1986

Chry Chrysotile asbestos

EPA U.S. Environmental Protection Agency

ID Identification

LF

NA

ND

OSHA

PACM

PLM

SF

Linear feet

Not applicable

Not detected

Occupational Safety and Health Administration

Presumed asbestos-containing material

Polarized light microscopy

Square feet

8.0 LBP FINDINGS

A summary of screening results for LBP by use of the XRF spectrometer at the subject property buildings appears in Table 2 below. Bolded results in Table 2 indicate where LBP was detected at concentration greater than 1.0 mg/cm². Positive (greater than 1.0 mg/cm²) results for LBP are shown on Figures 2A, 2B, and 2C in Appendix C.

TABLE 2

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
City Hall – First Floor							
1	White	Room 3	Door Frame	Wood	0.01	NA	NA
2	Blue	Room 4	Wall Board	Wood	0.01	NA	NA
3	White	Room 4	Window Trim	Wood	0.01	NA	NA
4	Yellow	Room 4	Window Frame	Wood	0.01	NA	NA
5	White	Room 6	Wall	Drywall	0.01	NA	NA
6	White	Room 16	Door	Wood	0.01	NA	NA
7	White	Room 15	Door Frame	Metal	0.01	NA	NA
8	White	Room 16	Wall	Drywall	0.01	NA	NA
9	Cream	West Exit Hall	Wall	Drywall	0.01	NA	NA
10	Cream	West Exit Hall	Wall	Cinderblock	0.01	NA	NA
11	White	Under Stairs	Wall	Plaster	0.01	NA	NA
12	White	Elevator	Door Frame	Metal	0.01	NA	NA
13	Cream	West Police Department Hall	Wall	Cinderblock	0.01	NA	NA
14	White	Room 3	Floor	Ceramic	6.72	YES	300 SF
15	Red	Boiler Room	Door	Metal	0.13	NA	NA
16	Red	Boiler Room	Door Frame	Metal	0.16	NA	NA
17	Blue	Boiler Room	Boiler	Metal	0.01	NA	NA
18	Varnish	Utilities Room	Door	Wood	0.03	NA	NA
19	White	Boiler Room	Wall	Cinderblock	0.01	NA	NA
20	White	Room 21	Wall	Drywall	0.01	NA	NA
21	White	Room 21	Pillar	Metal	0.01	NA	NA
22	Green	Room 22	Wall	Ceramic	8.74	YES	44 SF
23	White	Room 22	Pillar	Metal	0.01	NA	NA
24	Grey	Room 22 Storage	Wall	Concrete	0.01	NA	NA
25	Red	Room 22	Floor	Wood	0.01	NA	NA
26	Light Blue	Room 22	Door Frame	Metal	0.01	NA	NA
27	Grey	Room 20	Door	Metal	0.01	NA	NA
28	Grey	Room 20	Wall	Plaster	0.01	NA	NA
29	Grey	Room 20	Floor	Concrete	0.01	NA	NA
30	White	Maintenance Area	Wall	Drywall	0.04	NA	NA

TABLE 2 (Continued)

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
31	Blue	Maintenance Area	Wall	Plaster	0.09	NA	NA
32	Blue	Maintenance Area	Door Frame	Wood	0.28	NA	NA
33	Blue	Maintenance Area	Door	Wood	0.31	NA	NA
34	White	Maintenance Area	Wall	Plaster	1.21	YES	1,500 SF
35	Yellow	North Hall Elm Street	Wall	Drywall	0.01	NA	NA
36	Grey	North Hall Elm Street	Door Frame	Metal	0.01	NA	NA
37	Blue	Courtroom	Wall	Drywall	0.01	NA	NA
38	White	Courtroom	Wall	Drywall	0.01	NA	NA
39	Varnish	Courtroom	Pillar	Wood	0.01	NA	NA
40	Blue	Courtroom	Door	Wood	0.01	NA	NA
41	Blue	Courtroom	Door Frame	Metal	0.01	NA	NA
42	Green	Courtroom Hall	Door	Metal	0.06	NA	NA
43	White	Room 39	Entryway	Wood	0.01	NA	NA
44	White	Electrical Room 39	Closet Door	Wood	0.01	NA	NA
45	White	Room 39 Upper	Ductwork	Metal	0.01	NA	NA
46	Light Blue	Room 43	Wall	Drywall	0.01	NA	NA
47	White	Room 43	Baseboard	Wood	0.01	NA	NA
48	Cream	Room 46	Wall	Drywall	0.01	NA	NA
49	Varnish	Room 46 Hallway	Entryway	Wood	0.02	NA	NA
50	Blue	Room B45	Floor	Ceramic	0.01	NA	NA
51	Green	Room 52	Wall	Drywall	0.01	NA	NA
52	Green	Room 53	Wall	Wood	0.01	NA	NA
53	Tan	East Offices Hallway	Wall	Drywall	0.01	NA	NA
54	Blue	Room 54	Wall	Drywall	0.01	NA	NA
55	White	Room 54	Wall	Wood	0.01	NA	NA
56	Varnish	Room 54	Windowsill	Wood	0.01	NA	NA
57	Yellow	Room 55	Wall	Drywall	0.01	NA	NA
58	Green	Room 55	Wall	Drywall	0.01	NA	NA
59	Varnish	Room 55	Door Frame	Wood	0.01	NA	NA
60	Varnish	Room 55	Door	Wood	0.02	NA	NA
61	Green	Room 56	Windowsill	Wood	0.01	NA	NA
62	Pink	Room 60	Wall	Drywall	0.01	NA	NA
63	Blue	Room B66	Floor	Ceramic	0.01	NA	NA

TABLE 2 (Continued)

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
64	Cream	Room 61	Wall	Cinderblock	0.01	NA	NA
65	White	Room 63	Wall	Drywall	0.01	NA	NA
66	White	Council Chambers	Wall	Brick	0.01	NA	NA
67	Beige	South Entryway	Floor	Ceramic	8.22	YES	50 SF
City Hall – Parking Garage							
68	Grey	Garage Stairwell	Floor	Metal	0.01	NA	NA
69	Green	Garage Stairwell	Handrail	Metal	0.09	NA	NA
70	Green	Garage Stairwell	Baseboard	Metal	0.05	NA	NA
71	Green	Garage	Door	Metal	0.06	NA	NA
72	Green	Garage	Door Frame	Metal	0.03	NA	NA
73	Red	Garage	Support Beam	Metal	0.04	NA	NA
74	Yellow	Garage	Support Beam	Metal	0.04	NA	NA
75	Yellow	Garage Parking Lines	Floor	Concrete	5.77	YES	100 LF
76	Red	Garage	Support Beam	Metal	0.01	NA	NA
77	Grey	Garage	Door	Metal	0.03	NA	NA
78	Grey	Garage	Door Frame	Metal	0.01	NA	NA
City Hall – Second Floor							
79	Red	Southwest Stairwell	Door Frame	Metal	0.03	NA	NA
80	Black	Southwest Stairwell	Handrail	Metal	0.01	NA	NA
81	Cream	Southwest Stairwell	Windowsill	Ceramic	0.08	NA	NA
82	White	Southwest Hall	Door	Metal	0.01	NA	NA
83	White	Southwest Hall	Door Frame	Metal	0.04	NA	NA
84	Yellow	Room 71	Wall	Plaster	0.01	NA	NA
85	Yellow	Room 72	Wall	Ceramic	4.19	YES	300 SF
86	Multicolor	Room 73	Floor	Ceramic	0.01	NA	NA
87	White	Southwest Hall	Wall	Plaster	0.01	NA	NA
88	Light Blue	Room 71	Wall	Plaster	0.01	NA	NA
89	Light Pink	Room 71 Bathrooms Room 74 Bathroom	Wall	Ceramic	4.57	YES	400 SF
90	White	South Hall	Wall	Plaster	0.01	NA	NA
91	Cream	Room 75	Windowsill	Ceramic	0.02	NA	NA
92	Cream	Rooms 72, 74, 75, 77, 78 and 79 Bathrooms	Wall	Ceramic	4.81	YES	800 SF

TABLE 2 (Continued)

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
93	Brown	Room 75 Bathroom	Floor	Ceramic	0.01	NA	NA
94	Tan	Room 74	Wall	Plaster	0.01	NA	NA
95	Varnish	HVAC	Door	Wood	0.01	NA	NA
96	Blue	HVAC	Floor	Concrete	0.01	NA	NA
97	White	Room 77	Wall	Plaster	0.01	NA	NA
98	Green	Center Hall Bathroom	Wall	Ceramic	12.77	YES	100 SF
99	Tan	Room 79	Floor	Ceramic	0.01	NA	NA
100	Cream	Narcotics	Wall	Brick	0.01	NA	NA
101	Green	Narcotics	Wall	Ceramic	14.26	YES	50 SF
102	Light Blue	Narcotics	Door Frame	Wood	0.01	NA	NA
103	Light Blue	Narcotics	Door	Metal	0.01	NA	NA
104	Cream w/ Yellow	Narcotics Bathroom	Wall	Ceramic	8.34	YES	700 SF
105	White	Narcotics Bathroom	Floor	Ceramic	3.98	YES	40 SF
106	Grey	Men's Locker Room	Floor	Ceramic	0.01	NA	NA
107	Blue	Room 81	Door Frame	Metal	0.01	NA	NA
108	White	Room 81	Door	Wood	0.02	NA	NA
109	White	Elevator	Door	Metal	0.11	NA	NA
110	Cream	Room 84	Wall	Plaster	0.02	NA	NA
111	White	East Hall	Wall	Plaster	0.01	NA	NA
City Hall and Evidence Building – Exterior							
112	Brown	Oak Street City Hall – Exterior	Rainspout	Metal	0.03	NA	NA
113	White	Oak Street City Hall – Garage	Door	Metal	0.01	NA	NA
114	White	Oak Street City Hall – Garage	Door Frame	Metal	0.08	NA	NA
115	Brown	Oak Street City Hall – Garage	Door	Metal	0.01	NA	NA
116	Brown	Oak Street City Hall – Garage	Door Frame	Metal	0.07	NA	NA
117	Green	Exterior Evidence Building	Wall	Metal	0.01	NA	NA
118	White	Oak Street City Hall – Exterior	Wall	Cinderblock	0.01	NA	NA
119	Green	Exterior Evidence Building	Wall	Metal	0.01	NA	NA
120	Brown	Evidence Building Garage	Door Frame	Metal	0.01	NA	NA
121	White	Evidence Building Garage	Door	Metal	0.01	NA	NA
122	Tan	Oak Street City Hall – North	Awning Pillar	Metal	0.02	NA	NA
123	Tan	Oak Street City Hall – North	Retaining Wall	Concrete	0.01	NA	NA

TABLE 2 (Continued)

**SUMMARY OF LBP SCREENING RESULTS
101 OAK STREET, POPLAR BLUFF, MISSOURI**

XRF Screening No.	Paint Color	Location	Component	Substrate	XRF Reading (mg/cm²)	Damaged¹	Quantity
124	Tan	Oak Street City Hall – North	Wall	Cinderblock	0.03	NA	NA
125	Tan	Oak Street City Hall – North	Handrail	Metal	0.01	NA	NA
126	Grey	Oak Street City Hall – Northwest	Door	Metal	0.06	NA	NA
127	Red	Oak Street City Hall – South	Rainspout	Metal	0.78	NA	NA
Evidence Building – Interior							
128	Cream	Back Room	Door	Metal	0.01	NA	NA
129	Cream	Back Room	Door Frame	Metal	0.01	NA	NA
130	White	Back Room	Ductwork	Metal	0.01	NA	NA
131	White	Back Room	Windowsill	Metal	0.01	NA	NA
132	White	Back Room	Pipe	Metal	0.01	NA	NA
133	White	Back Room	Wall	Wood	0.01	NA	NA
134	White	Back Room	Door	Wood	2.97	YES	40 SF
135	White	Back Room	Door Frame	Wood	0.01	NA	NA
136	White	Bathroom	Wall	Wood	0.01	NA	NA
137	Varnish	Bathroom	Wall	Wood	0.01	NA	NA
138	Red	Garage	Support Beam	Metal	0.01	NA	NA
139	Red	Garage	Support Beam	Metal	0.01	NA	NA

Notes:

Room numbers were designated by Tetra Tech.

Calibration checks were conducted hourly in accordance to NIST standards and were within range of the standards provided. The results were not logged, but all results were within a 3-5% variance of the standards provided.

1 This column identifies damaged LBP surfaces. If no damage is present before renovation activities, preliminary removal of chipping and peeling paint is not necessary prior to the encapsulation process.

mg/cm² Milligrams per square centimeter
 HVAC Heating, ventilation, and air conditioning
 LBP Lead-based paint
 LF Linear feet

NA Not applicable
 No. Number
 SF Square feet
 XRF X-ray fluorescence

9.0 PCB FINDINGS

The laboratory report in Appendix E conveys analytical results from bulk samples of suspect PCB-containing caulk materials, and results are summarized in Table 3 below. Sample locations are shown on Figures 1A and 1B in Appendix C.

TABLE 3
SUMMARY OF PCB FINDINGS
101 OAK STREET, POPLAR BLUFF, MISSOURI

Figure Key	Sample ID	Material Description	Material Locations	Analytical Result (ppm)	Quantity
PCB-1	PCB-1-Black	Window Caulk	Exterior – Second Floor, Northwest Side of City Hall	ND	NA
PCB-2	PCB-2-Grey	Door Caulk	Exterior – First Floor, Northwest Side of City Hall	ND	NA

Notes:

ID Identification
NA Not applicable
ND Not detected
PCB Polychlorinated biphenyl
ppm Parts per million

10.0 HAZARDOUS MATERIALS INVENTORY FINDINGS

The HW and hazardous materials inventory is summarized in Table 4 below.

TABLE 4
SUMMARY OF HAZARDOUS MATERIALS INVENTORY
101 OAK STREET, POPLAR BLUFF, MISSOURI

Type of Household Hazardous Waste	Assessed Quantity
White Goods:	2 water heaters, 5 microwaves, 3 refrigerators, 5 air conditioning units
Lamps	
Fluorescent	2,500
Compact Fluorescent (CFL)	None Observed
Tires	
Small	None Observed
Large	25
Paints(Cans)	
Latex	12
Oil-Based	10
Polychlorinated Biphenyl (PCB) Ballasts	
Fluorescent	700
Aerosols	
Flammable	40
Other	1
Heating, Ventilation, and Air Conditioning	
Mercury-containing Thermostats	35
Chlorofluorocarbons (CFC) and Hydrochlorofluorocarbons (HCFC) Refrigerants	
Water Fountains	5
Fire Extinguishers	20
Others	None observed
Other: misc. hazardous wastes, household hazardous wastes, oils	
Computers/Monitors	10 crates of computers and monitors. Each crate holds approximately 30 computers
Copy Machines, Printers, Fax Machines, and Scanners	30
Poisons/Pesticides	3
Elevator	1
Household size generator (5,000 kilowatts)	1
30 Gallon Diesel Tank	1
Others (describe) Miscellaneous Cleaning Products	20 containers
Others (describe) Exit Signs with Batteries	25
Others (describe) Emergency Lighting with Batteries	50

11.0 FINDINGS AND RECOMMENDATIONS

The following findings and recommendations are based on observations during the survey and analytical results from samples collected at the City Hall and evidence building on the subject property:

ACM:

- Regulated ACM was identified in black mastic associated with 12" X 12" white with black streaks floor tile (approximately 600 square feet [SF]) in the southwest hallway. The black mastic was represented by samples FT1-1, -2, and -3. Laboratory results indicated that the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" grey with red and brown streaks floor tile (approximately 300 SF) in Rooms 12 and 23. The floor tile was represented by samples FT6-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT8-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" black floor tile and mastic (approximately 600 SF) in Rooms 21 and 22 under 12" X 12" white floor tile. The floor tile and mastic were represented by samples FT9-1, -2, and -3. Laboratory results indicated that the floor tile contained 6% chrysotile and the mastic contained 10% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" grey, white, and green cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 14 and 15 under FT10 and FT11. The floor tile and mastic were represented by samples FT12-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos and the mastic contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" beige with tan cobblestone floor tile and black mastic (approximately 500 SF) in Rooms 9, 11, and 13. The floor tile and mastic were represented by samples FT14-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile and the mastic contained 8% chrysotile asbestos.
- Approximately 7,000 SF of 12" X 12" white fissure and pinhole ceiling tile mastic is presumed asbestos containing in room 20 and the east office area.
- Regulated ACM was identified in 9" X 9" brown with black streaks floor tile and mastic (approximately 4,000 SF) in Rooms 43, 46, 89, 88 and hallway, hallway near Room 43, hallway north exit near elm street, hallway south of boiler room hall, hallway west of boiler room, and room south of mechanical maintenance room and hallway. The floor tile and mastic were represented by samples FT15-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile and the mastic contained 5% chrysotile asbestos.
- Regulated ACM was identified in white ceiling texture (approximately 500 SF) in Room 88 and hallway, and hallway west and south of boiler room. The ceiling texture was represented by samples CTX-1, -2, and -3. Laboratory results indicated that the ceiling texture contained 5% chrysotile asbestos.

- Regulated ACM was identified in the wall texture behind the white plastic wall paneling (approximately 350 SF) in the hallway south of the boiler room. The wall texture was represented by samples WM1-1, -2, and -3. Laboratory results indicated that the wall texture contained 4% chrysotile asbestos.
- Regulated ACM was identified in tan linoleum (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile. The linoleum was represented by samples LIN1-1, -2, and -3. Laboratory results indicated that the linoleum contained 25% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" red floor tile (approximately 700 SF) in the mechanical maintenance area and hallway under 12" X 12" white floor tile and linoleum. The floor tile was represented by samples FT16-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" tan floor tile (approximately 1,800 SF) in Rooms 36, 39-42, and 70, and under the carpet in hallway east of Room 46. The floor tile was represented by samples FT17-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in 12" X 12" cream with lime green and white streaks floor tile (approximately 700 SF) in the courtroom. The floor tile was represented by samples FT18-1, -2, and -3. Laboratory results indicated that the floor tile contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" cream with black and brown streaks floor tile (approximately 525 SF) in Rooms 62 and 63. The floor tile was represented by samples FT19-1, -2, and -3. Laboratory results indicated that the floor tile contained 8% chrysotile asbestos.
- Regulated ACM was identified in airocell pipe insulation (approximately 300 linear feet [LF]) on the east side of the first floor and boiler room. The airocell was represented by samples TSI-1, -2, and -3. Laboratory results indicated that the airocell contained 60% chrysotile asbestos.
- Regulated ACM was identified in joint insulation (approximately 175 joints) on the east side of the first floor and boiler room. The joint insulation was represented by samples TSJ-1, -2, and -3. Laboratory results indicated that the joint insulation contained 30% chrysotile asbestos.
- Regulated ACM was identified in 4" X 12" brown floor tile and mastic (approximately 10 SF) in Room 48 southwest closet. The floor tile and mastic were represented by samples FT29-1, -2, and -3. Laboratory results indicated that the floor tile contained 10% chrysotile and the mastic contained 5% chrysotile asbestos.

City Hall – Second Floor

- Regulated ACM was identified in ceramic tile mastic (approximately 1,000 SF) on the second floor in bathrooms 71, 74, 75, 77, 78, and 79. The mastic was represented by samples CTM-1, -2, and -3. Laboratory results indicated that the mastic contained 4% chrysotile asbestos.
- Regulated ACM was identified in 9" X 9" beige with brown streaks floor tile mastic (approximately 8,000 SF) on the second-floor hallway and Rooms 71, 74 through 79, and storage and maintenance area. The mastic was represented by samples FT20-1, -2, and -3. Laboratory results indicated that the mastic contained 6% chrysotile asbestos.

- Regulated ACM was identified in yellow linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN2-1, -2, and -3. Laboratory results indicated that the linoleum contained 20% chrysotile asbestos.
- Regulated ACM was identified in grey linoleum (approximately 350 SF) in half of the narcotics room. The linoleum was represented by samples LIN3-1, -2, and -3. Laboratory results indicated that the linoleum contained 65% chrysotile asbestos.
- Regulated ACM was identified in black sink undercoat (approximately 5 SF) in the narcotics room. The sink undercoat was represented by samples SU-1, -2, and -3. Laboratory results indicated that the sink undercoat contained 5% chrysotile asbestos.
- Regulated ACM was identified in grey floor tile under linoleum (approximately 1,100 SF of floor tile and linoleum) in the men's locker room. The floor tile was represented by samples FT21-1, -2, and -3. Laboratory results indicated that the floor tile contained 5% chrysotile and the linoleum contained 60% asbestos.
- Regulated ACM was identified in brown and tan pattern linoleum (approximately 10 SF) in Room 81 on the bottom shelf. The linoleum was represented by samples LIN4-1, -2, and -3. Laboratory results indicated that the linoleum contained 15% chrysotile asbestos.

City Hall – Exterior

- Regulated ACM was identified in transite panels (approximately 1,000 SF) on the south exterior soffit. The transite was represented by samples TRAN-1, -2, and -3. Laboratory results indicated that the transite contained 20% chrysotile asbestos.
- Regulated ACM was identified in brown window caulk (approximately 160 LF) on the south exterior windows. The caulk was represented by samples C-1, -2, and -3. Laboratory results indicated that the caulk contained 5% chrysotile asbestos.
- Regulated ACM was identified in black expansion caulk (approximately 50 LF) on the north loading dock. The caulk was represented by samples EC2-1, -2, and -3. Laboratory results indicated that the caulk contained 10% chrysotile asbestos.
- Regulated ACM was identified in brown and off-white window caulk (approximately 450 LF) on the north loading dock. The caulk was represented by samples C2-1, -2, and -3. Laboratory results indicated that the white caulk contained 5% chrysotile asbestos.

Evidence Building- No ACM found in the evidence building.

All regulated ACM listed above should be removed by a licensed asbestos abatement contractor before demolition work disturbs the material. The removed waste must be transported to a disposal site able to accept both friable and non-friable ACM. If the building is to be renovated and any of the above ACM materials are not to be disturbed, they may remain in place.

LBP

City Hall – First Floor

- Approximately 300 SF of white ceramic floor tile in Room 3 tested positive for LBP, with x-ray fluorescence (XRF) reading of 6.72 milligrams per square centimeter (mg/cm²).
- Approximately 44 SF of green ceramic wall tile in Room 22 tested positive for LBP, with XRF reading of 8.74 mg/cm².
- Approximately 1,500 SF of white wall plaster in the maintenance area tested positive for LBP, with XRF reading of 1.21 mg/cm².
- Approximately 50 SF of beige ceramic floor tile in the south entryway tested positive for LBP, with XRF reading of 8.22 mg/cm².

City Hall – Parking Garage

- Approximately 100 LF of yellow painted concrete parking spaces in the parking garage tested positive for LBP, with XRF reading of 5.77 mg/cm².

City Hall – Second Floor

- Approximately 300 SF of yellow ceramic wall tile in Room 72 tested positive for LBP, with XRF reading of 4.19 mg/cm².
- Approximately 400 SF of light pink ceramic wall tile in Rooms 71 and 74 tested positive for LBP, with XRF reading of 4.57 mg/cm².
- Approximately 800 SF of cream ceramic wall tile in Rooms 72, 75, 77, 78, and 79 tested positive for LBP, with XRF reading of 4.81 mg/cm².
- Approximately 100 SF of green ceramic wall tile in the second-floor center hall bathroom tested positive for LBP, with XRF reading of 12.77 mg/cm².
- Approximately 50 SF of green ceramic wall tile in the narcotics room tested positive for LBP, with XRF reading of 14.26 mg/cm².
- Approximately 700 SF of cream/yellow ceramic wall tile in the narcotics bathroom tested positive for LBP, with XRF reading of 8.34 mg/cm².
- Approximately 40 SF of white ceramic floor tile in the narcotics bathroom tested positive for LBP, with XRF reading of 3.98 mg/cm².

Evidence Building

- Approximately 40 SF of white wood door in the back room of the evidence building tested positive for LBP, with XRF reading of 2.97 mg/cm².

HUD considers LBP as paint with lead levels above 1.0 mg/cm². If the LBP surfaces are impacted during renovations or during demolition, Tetra Tech recommends that the contractor conducting the renovations comply with OSHA Lead in Construction Standard, Title 29 of *Code of Federal Regulations* (CFR), Part 1926.62. If the materials containing LBP are removed during renovation activities, a sample should be collected from the debris pile for a Toxicity Characteristic Leaching Procedure (TCLP) analysis (40 CFR 261.24); representative samples should be collected and analyzed for all eight metals specified in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). This would allow determination of the proper method of disposal of the materials.

PCBs

Laboratory results indicated that no sampled building materials contained concentrations of PCBs above 50 parts per million (ppm).

HW

HW and other hazardous materials were inventoried during the survey. Tetra Tech recommends proper disposal of the materials based on their characteristics prior to demolition of the subject property buildings.

12.0 ASSUMPTIONS AND DEVIATIONS

The entire interior and exterior of the subject property buildings were inspected for suspect ACM, LBP, and PCB-containing caulk. In addition, Tetra Tech inventoried all hazardous waste and other hazardous materials. Because of limitations on destructive sampling methods, additional suspect materials may be present but not detected in walls, voids, or other concealed areas. Suspected asbestos-containing elevator equipment and fire doors were identified in the City Hall. To preserve the integrity of these materials, no samples of these materials were collected. Moreover, because of lack of structural integrity of the roof above the first floor of the City Hall, no samples were collected from this roof area. Tetra Tech recommends that if the suspected asbestos-containing roofing materials, fire doors, and/or elevator equipment are to be disturbed during renovations or demolition, these materials should be sampled to determine their asbestos content. All other areas of the subject property buildings were inspected.

13.0 REFERENCES

- Agency for Toxic Substance and Disease Registry (ATSDR). 2008. Asbestos: Health Effects. Accessed December 13, 2012. http://www.atsdr.cdc.gov/asbestos/asbestos/health_effects/
- SCS Engineers, Inc. (SCS). 2018. Phase I Environmental Site Assessment: Poplar Bluff City Hall, 101 Oak Street, Poplar Bluff, Missouri. July 19.
- Tetra Tech, Inc. (Tetra Tech). 2019. Quality Assurance Project Plan Regarding a Survey of Poplar Bluff City Hall, 101 Oak Street, Poplar Bluff, Missouri. October.
- U.S. Department of Housing and Urban Development (HUD). 1997. *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

APPENDIX A

PHOTOLOG

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" stick on grey floor tile and mastic in the south main entrance and Room 2.	1
	CLIENT	U.S. Environmental Protection Agency (EPA)	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

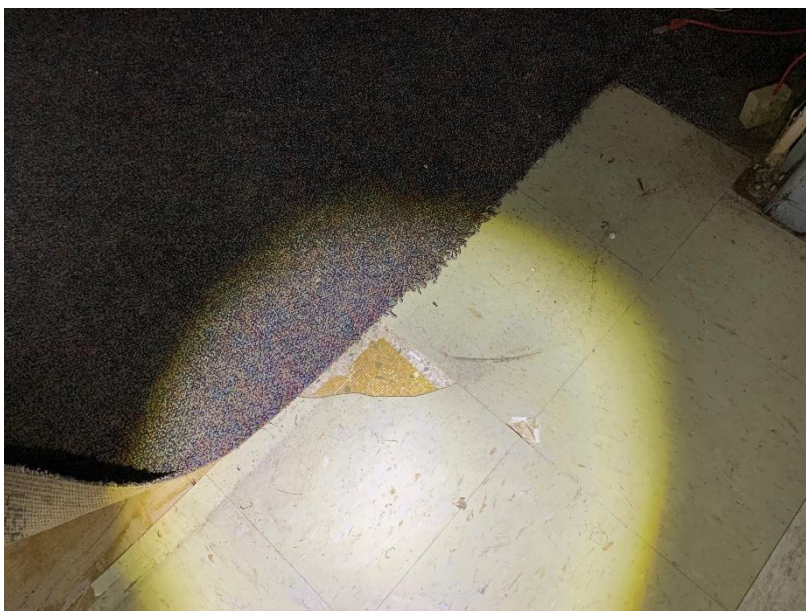


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white and black streak floor tile typical of the southwest hallway, Rooms 16 (front), 17, 18, 19, 21, 22, 27, 28, 29, 30, 39, 86, and 87.	2
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" pink and black dots floor tile in Room 16.	3
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" beige and tan streak floor tile in Room 16.	4
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows terrazzo flooring in the west side of the first floor.	5
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" black cove base typical of Rooms 16, 27, 28, 31, and 32.	6
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 2' X 4' pinhole-fissured ceiling tile of a type found throughout the first floor.	7
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

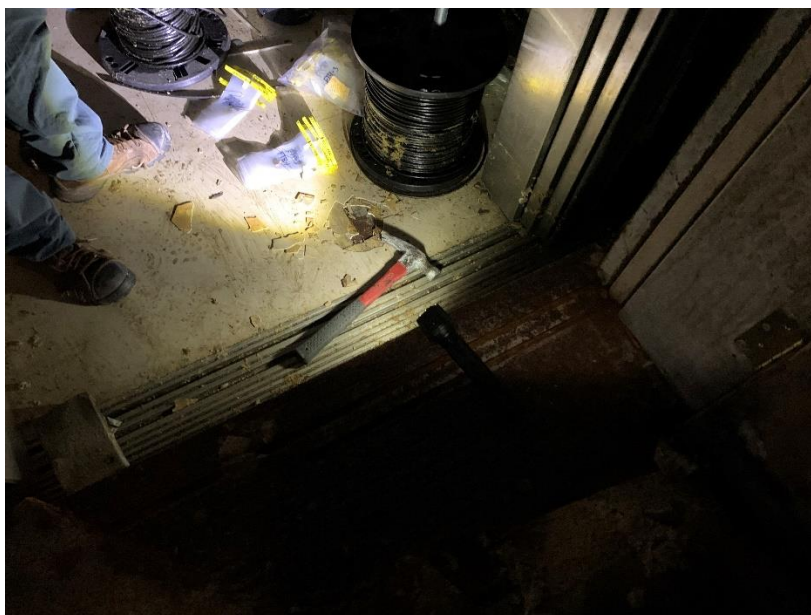


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wood wall panel mastic typical of Room 10 and Room 16.	8
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow carpet mastic of a type found throughout the first floor.	9
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" thin brown and tan streak floor tile in the elevator.	10
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" grey with red and brown streak floor tile typical of Room 12 and Room 23.	11
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

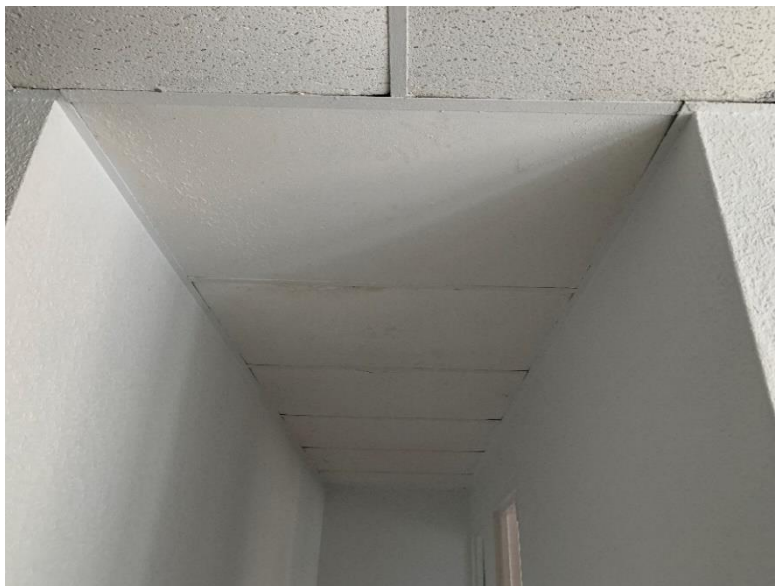


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white and black dot floor tile in the holding cell area.	12
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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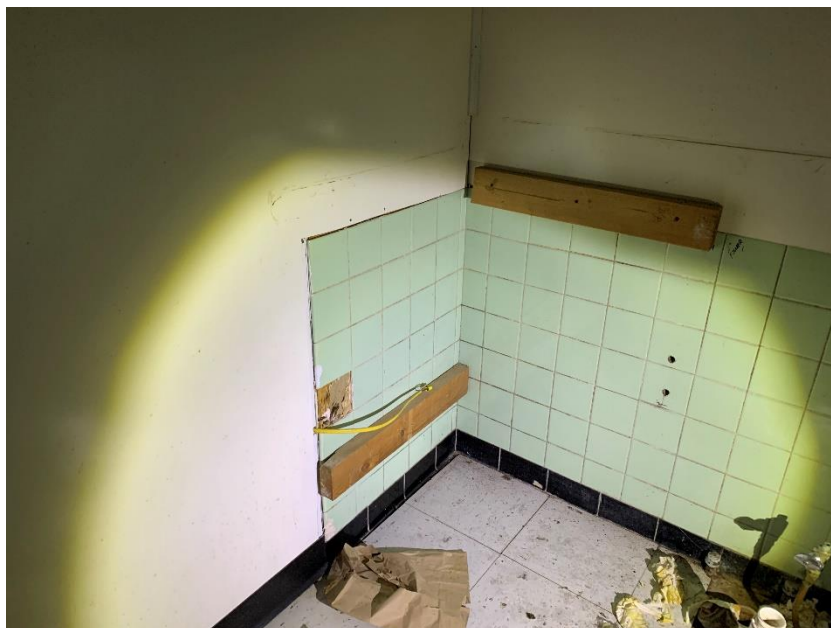


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white fissured ceiling tile and mastic typical of the east office area and holding cell area.	13
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

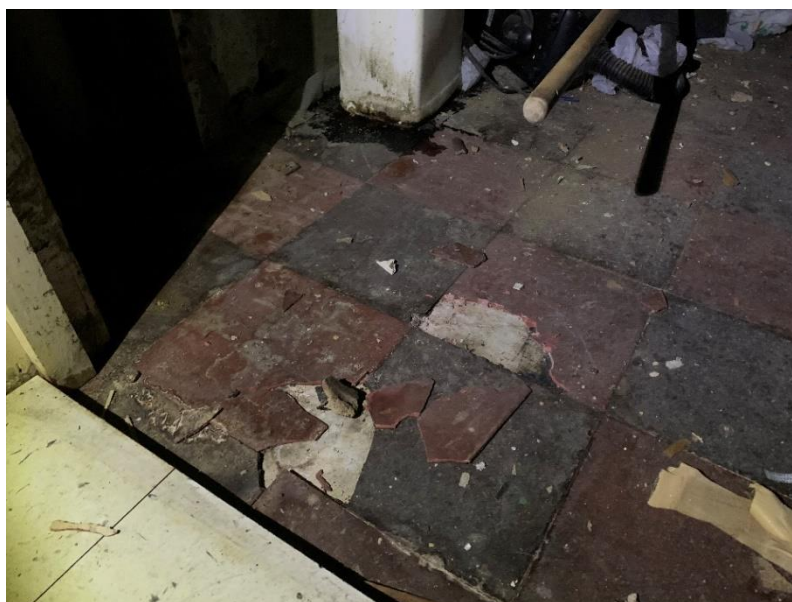


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 2' X 4' white gypsum ceiling typical of Room 21 bathroom, Room 22, and hallway storage near Elm Street entrance.	14
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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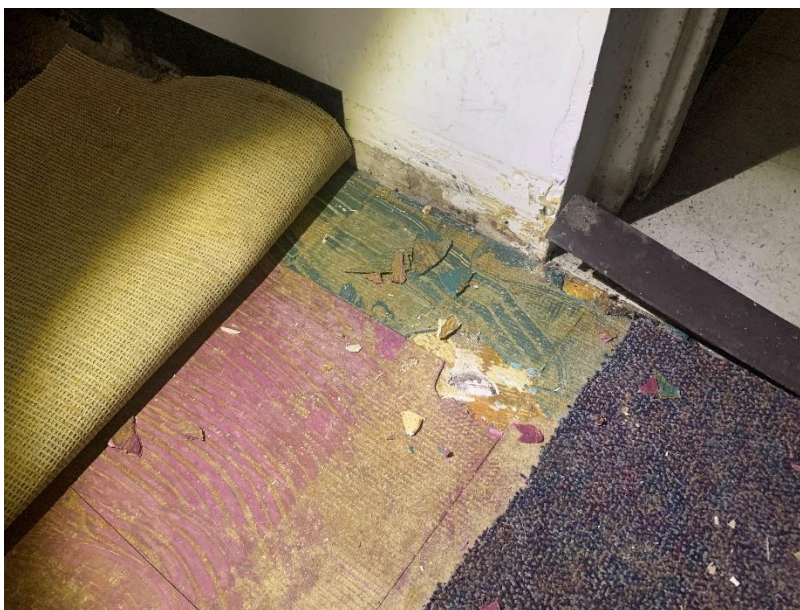


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile mastic in Room 22.	15
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" red floor tile and 9" X 9" black floor tile under 12" X 12" white floor tile typical of Rooms 21 and 22.	16
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows 12" X 12" hot pink floor tile and 12" X 12" turquoise floor tile typical of Room 14 and Room 15.	17
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows 12" X 12" tan and brown streak floor tile typical of the hallway outside Room 48 and Room 10.	18
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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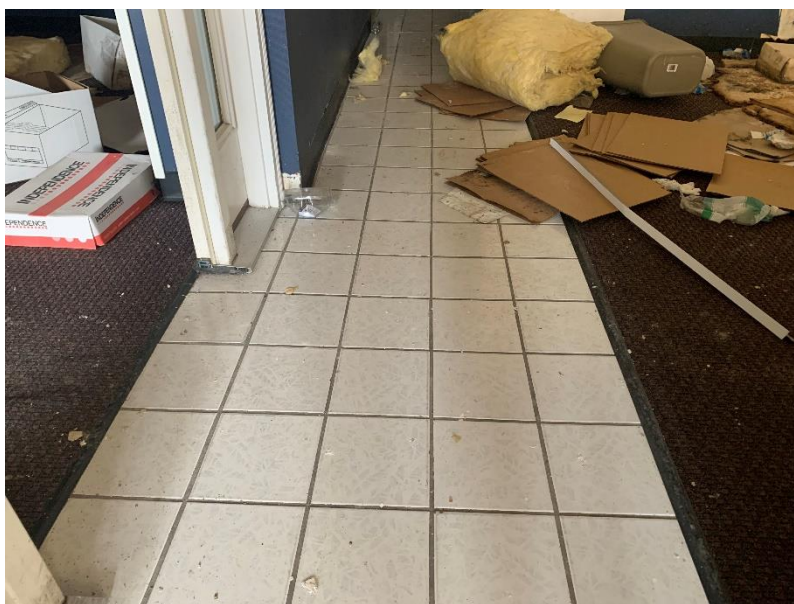


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" beige and tan cobblestone floor tile typical of Rooms 9, 11, and 13.	19
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white sink coating in Room 48.	20
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white ceramic tile grout in Room 3.	21
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown linoleum typical of Rooms 48, B67, and 68.	22
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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<p style="text-align: center;">TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: Southwest</p>	DESCRIPTION	This photograph shows 9" X 9" brown and black streak floor tile typical of Rooms 43, 46, 89, 88 and hallway; the hallway near Room 43; the hallway of the north exit near Elm Street; the hallway south of the boiler room; and the hallway west of the boiler room.	23
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

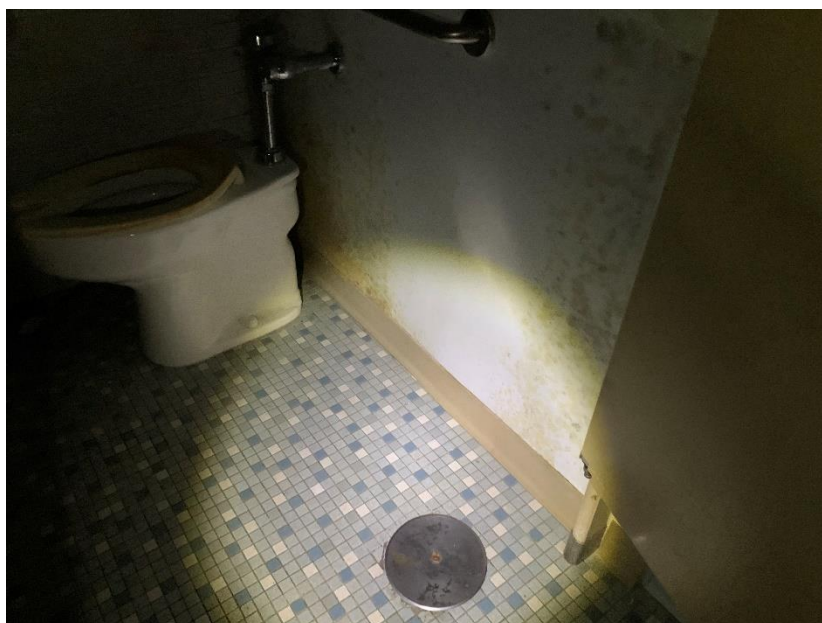


<p style="text-align: center;">TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: North</p>	DESCRIPTION	This photograph shows white ceiling texture typical of Room 88 and hallway and the hallway west of the boiler room.	24
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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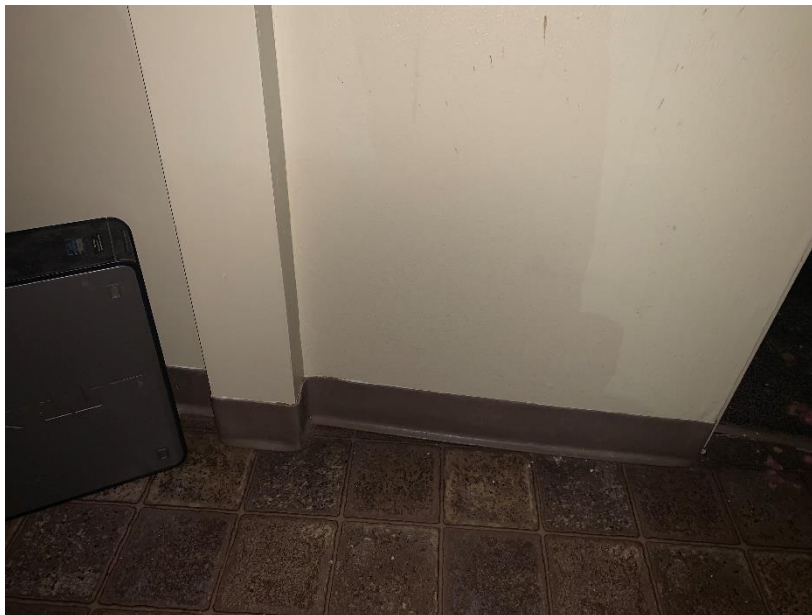


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: North	DESCRIPTION	This photograph shows brown fireproofing of a type found throughout the first floor.	25
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

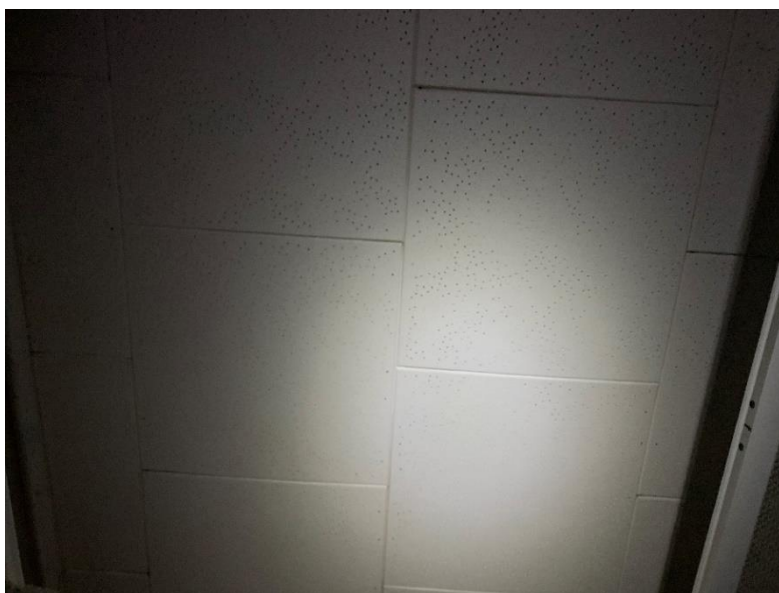


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows ceramic tile grout typical of Rooms B34, B35, B45, B65, and B66.	26
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" tan cove base typical of Rooms B67 and B68.	27
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

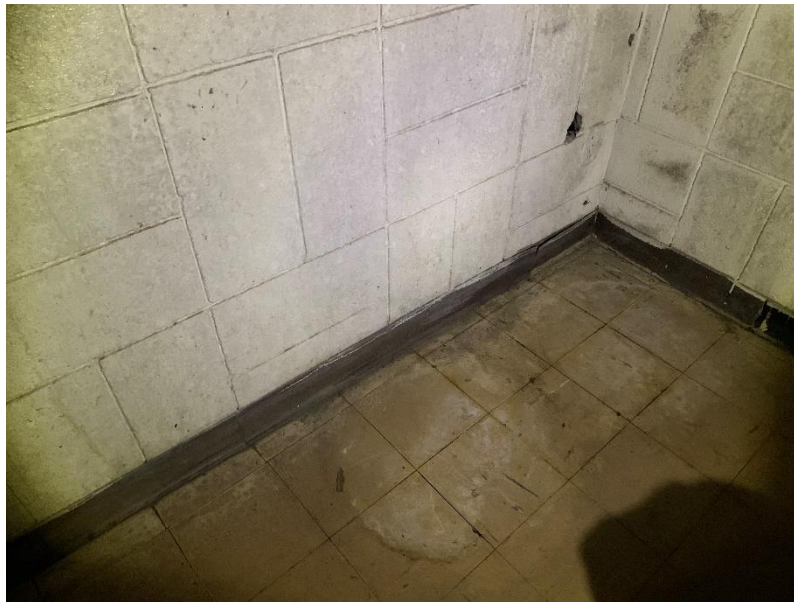


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white pinhole ceiling tile typical of the north hallway, the hallway east of Room 41, and the hallway north of Room 70.	28
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white plastic wall panel mastic in the hallway south of the boiler Room.	29
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" brown cove base in the second floor hallway.	30
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan linoleum on top of 12" X 12" white floor tile and 9" X 9" red floor tile typical of the mechanical maintenance area and the hallway west of the mechanical maintenance area.	31
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wall carpet mastic in the holding cell area.	32
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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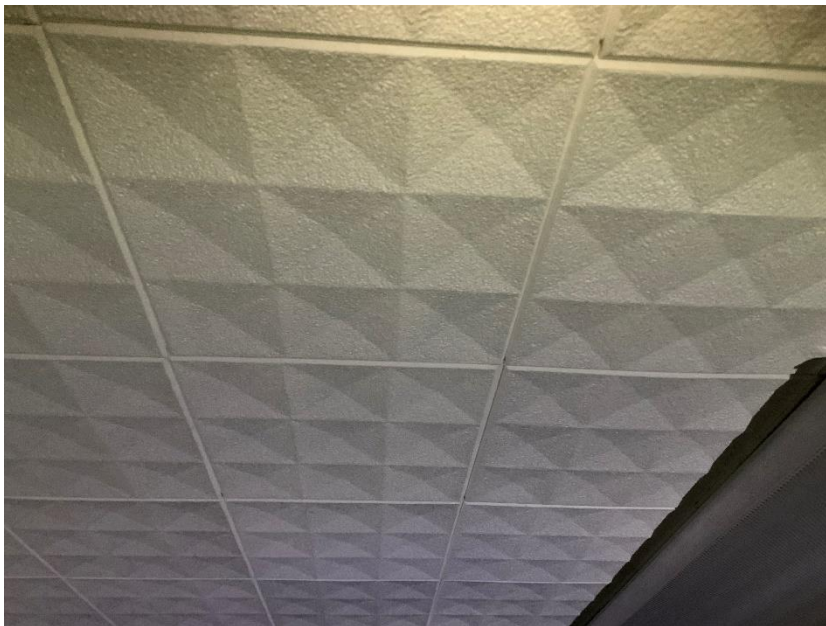


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" grey cove base typical of Room 39 and Room 46.	33
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

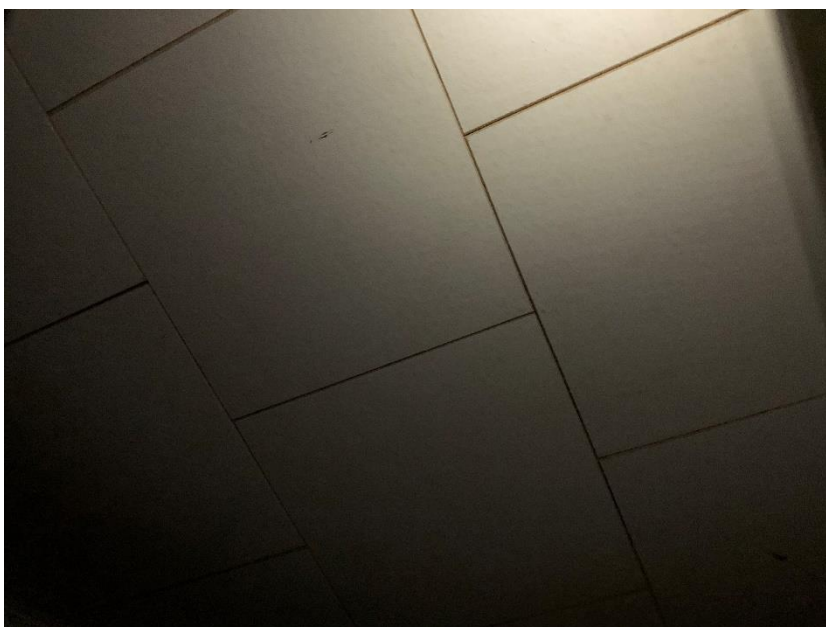


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" tan floor tile under carpet typical of the hallway east of Room 46 and of Rooms 39, 40, 41, 42, and 70.	34
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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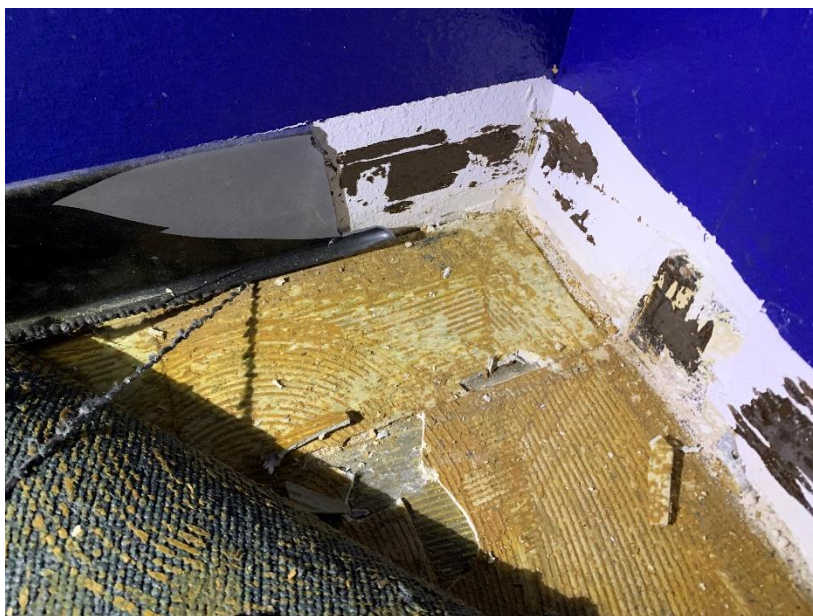


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white divot ceiling tile in Room 39.	35
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white smooth ceiling tile typical of Room 39 and Room 90.	36
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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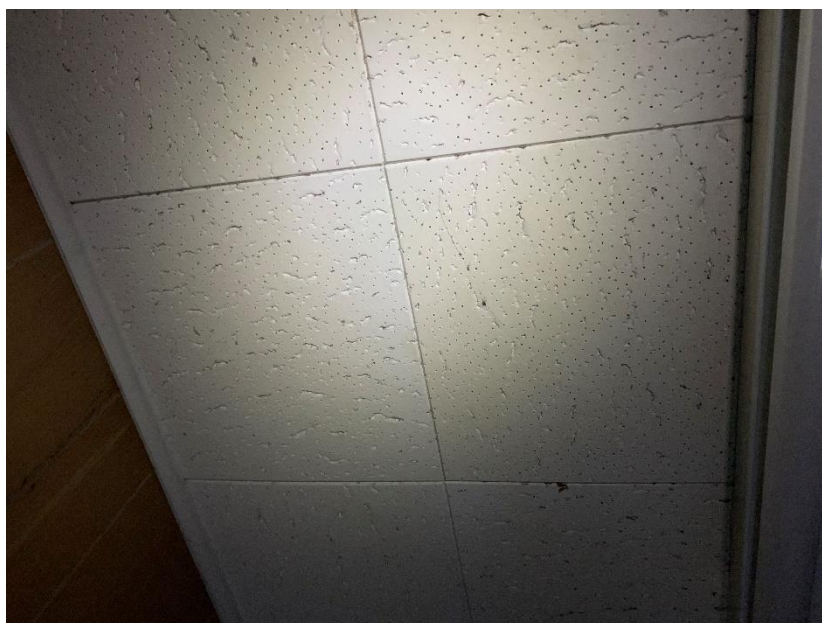


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" cream with green and white speck floor tile in the courtroom.	37
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

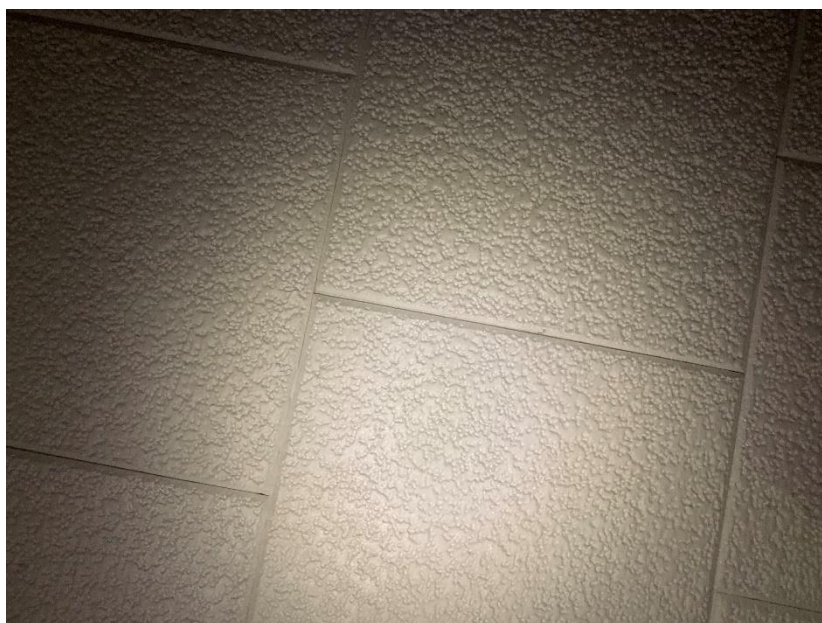


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows ceiling texture on drywall in the courtroom.	38
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" fissured pinhole ceiling tile in the courtroom hallway.	39
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

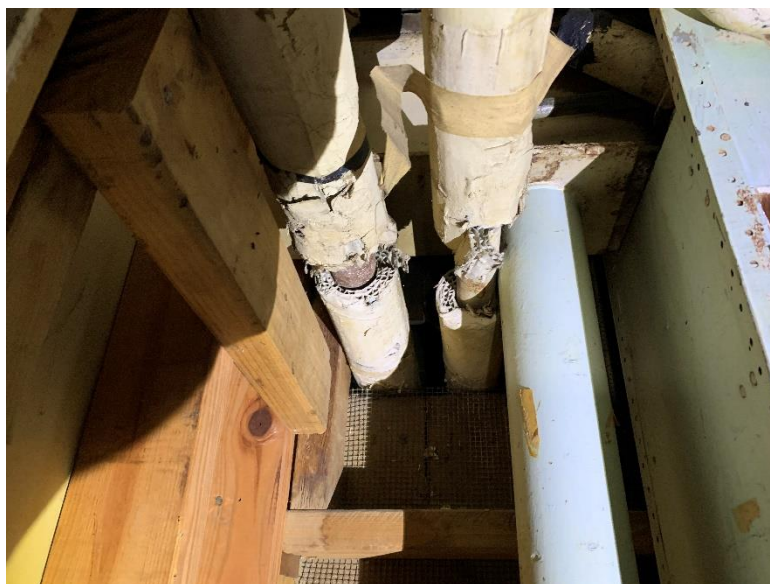


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" bubbled ceiling tile in Room 90.	40
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black carpet mastic in the northeast section of the building.	41
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows airocell pipe insulation in the west building area.	42
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows mudded pipe joints in the west building area.	43
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 8" grey cove base in Room 71.	44
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey grout and ceramic tile mastic in the second floor bathrooms.	45
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 9" X 9" beige and brown streak floor tile typical of the second floor hallway and of Rooms 74, 75, 76, and 78.	46
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows carpet mastic on top of yellow linoleum and grey linoleum in the narcotics room.	47
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wall carpet mastic typical of the interview room and Room 79.	48
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows wood wall panel mastic in the storage room off of main second floor hallway.	49
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

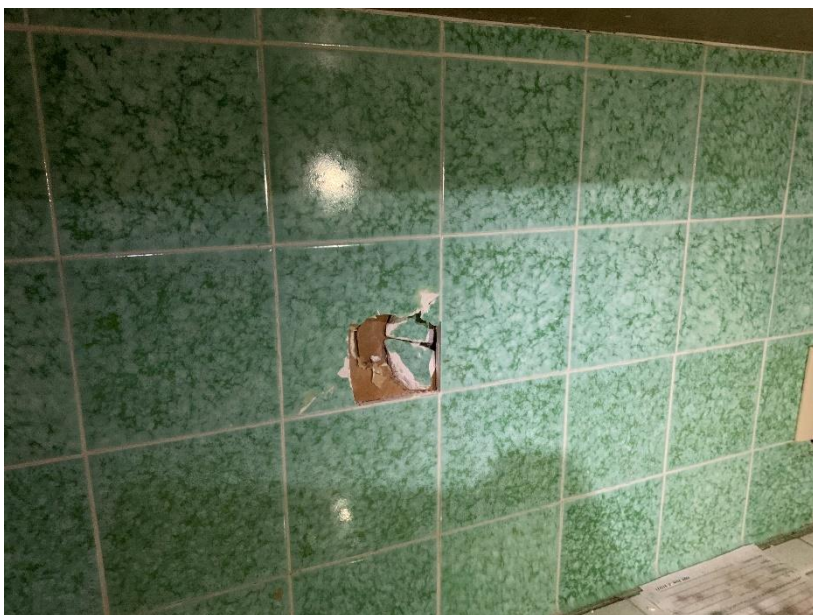


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" white square divot ceiling tile typical of the narcotics room and bathroom.	50
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black sink coating in the narcotics room.	51
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic tile mastic in the narcotics room.	52
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey floor tile under linoleum in the men's locker room.	53
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream 2' X 4' pinhole texture ceiling tile in the men's locker room.	54
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" grey with white and black speck floor tile in Room 81.	55
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown and tan pattern linoleum in Room 81.	56
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" blue with black and white speck floor tile under 12" X 12" white floor tile on linoleum typical of the second floor north hallway; the hallway east of Room 85; the hallway closet bathroom; Rooms 84 and 81; the armory; and women's locker room.	57
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown linoleum under 12" X 12" white floor tile and 12" X 12" blue with black and white speck floor tile typical of all second floor hallway entry strips.	58
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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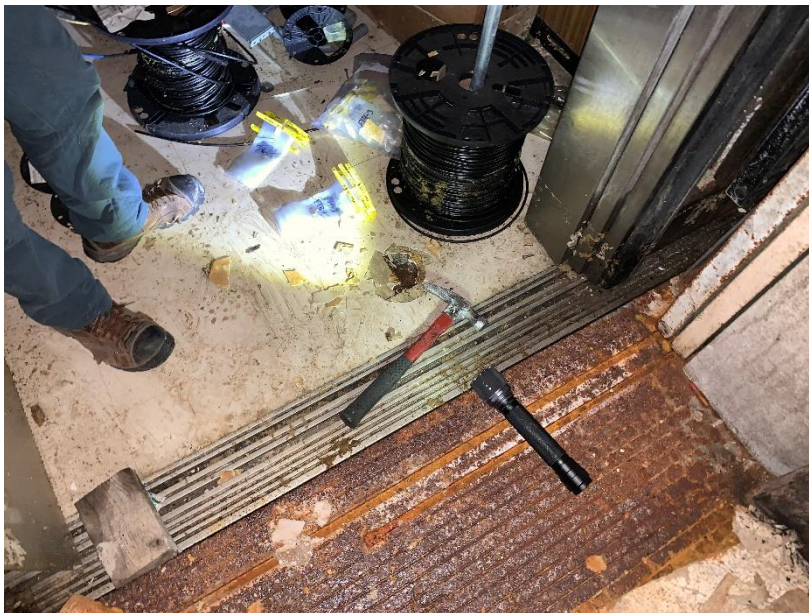


<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows 12" X 12" tan with black, grey and white pattern floor tile with grid bottom typical of the second floor north and central hallway; the hallway near Room 85; the hallway south of the north stairwell; and Rooms 82, 83, and 85.	59
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows 9" X 9" grey with white and black streak floor tile and 4" light blue cove base typical of the north stairwell, second floor hallway south of the north stairwell, and Room 85.	60
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 12" X 12" thin tan floor tile on top of grey floor tile in the elevator.	61
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows transite panels on south soffit of the building.	62
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows drywall in the original west side of the building.	63
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows drywall in the east side of the first floor.	64
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows plaster on the first floor.	65
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

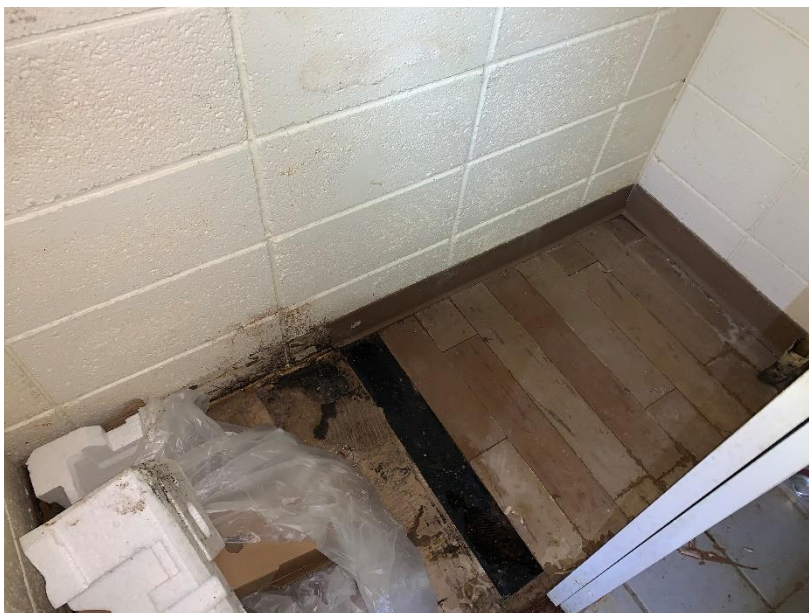


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows spray-on plaster ceiling in west side of first floor.	66
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows plaster on the second floor.	67
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows 4" X 12" brown floor tile and pink cove base in the closet southwest of Room 48.	68
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

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TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows brown caulk typical of south exterior windows.	69
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black expansion caulk typical of the east exterior and west entrance of the building.	70
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white expansion caulk on the south exterior of the evidence building.	71
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows black expansion caulk on the exterior loading dock on the north side of the building.	72
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey caulk typical of north exterior doors.	73
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan stucco on the west exterior police department entrance and the northwest entrance wall and awning.	74
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows siding shingles on top of the vapor barrier on the west exterior of the building.	75
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tan expansion caulk on the west exterior of the building.	76
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

Oak Street City Hall Hazardous Materials Survey Poplar Bluff, Missouri



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows clear caulk typical of exterior first floor west windows.	77
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows grey caulk typical of south exterior police department doors.	78
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

Oak Street City Hall Hazardous Materials Survey Poplar Bluff, Missouri



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows black glazing typical of south exterior windows.	79
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows light brown caulk on south exterior door.	80
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

Oak Street City Hall Hazardous Materials Survey Poplar Bluff, Missouri



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows the built-up asphalt roof on the police department.	81
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows the various layers of the built-up asphalt roof, including asphalt shingles, tar, and a loose tar and rock mix.	82
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows tar curb sealant on the police department roof.	83
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the built-up roof on the north side of the police station.	84
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	

Oak Street City Hall Hazardous Materials Survey Poplar Bluff, Missouri

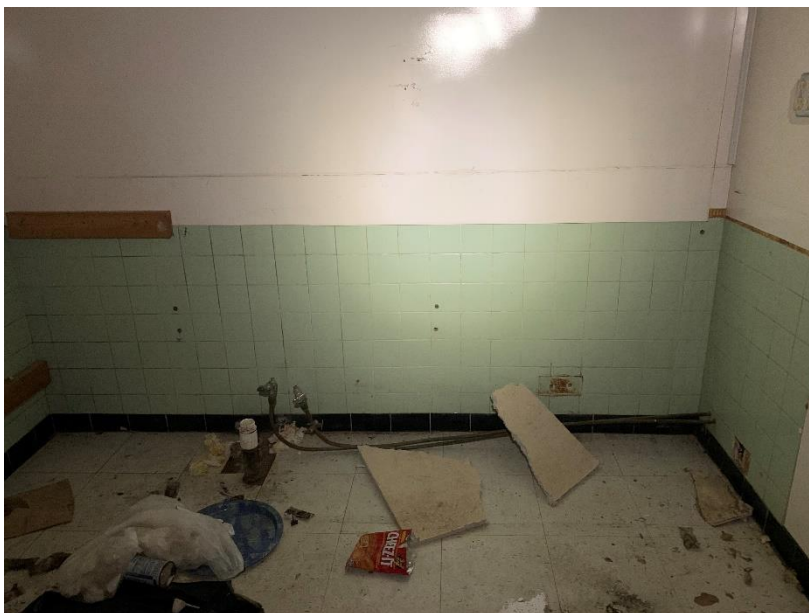


<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows 12" X 12" floor tile and 4" brown cove base in the back room of the evidence building.	85
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



<p>TETRA TECH PROJECT NO. X9030.19F.0101.005</p> <p>Direction: NA</p>	DESCRIPTION	This photograph shows white window glaze on the southeast window of the evidence building.	86
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in Room 22.	87
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white wall plaster in the maintenance area.	88
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**

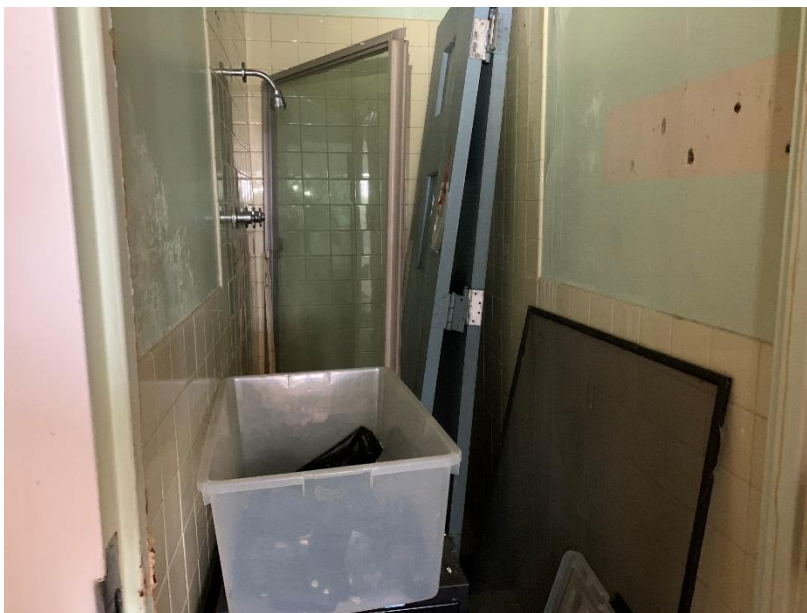


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows beige ceramic floor tile in the south entryway.	89
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow parking lines on concrete in the garage.	90
	CLIENT	EPA	Date 11/6/2019
	PHOTOGRAPHER	Zach Usher	

Oak Street City Hall Hazardous Materials Survey **Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows yellow ceramic wall tile in Room 72.	91
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

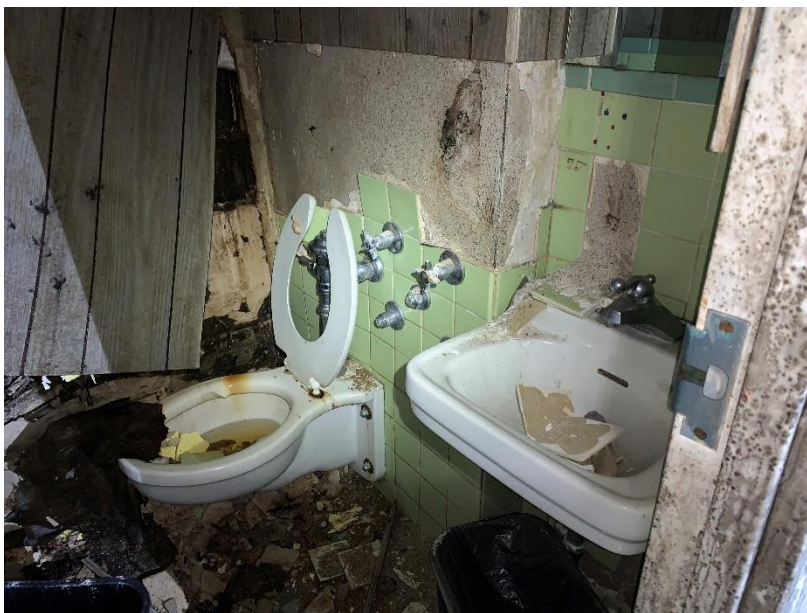


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows light pink ceramic wall tile typical of the Room 71 and Room 74 bathrooms.	92
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream ceramic wall tile typical of the bathrooms of Rooms 75, 77, 78, and 79.	93
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

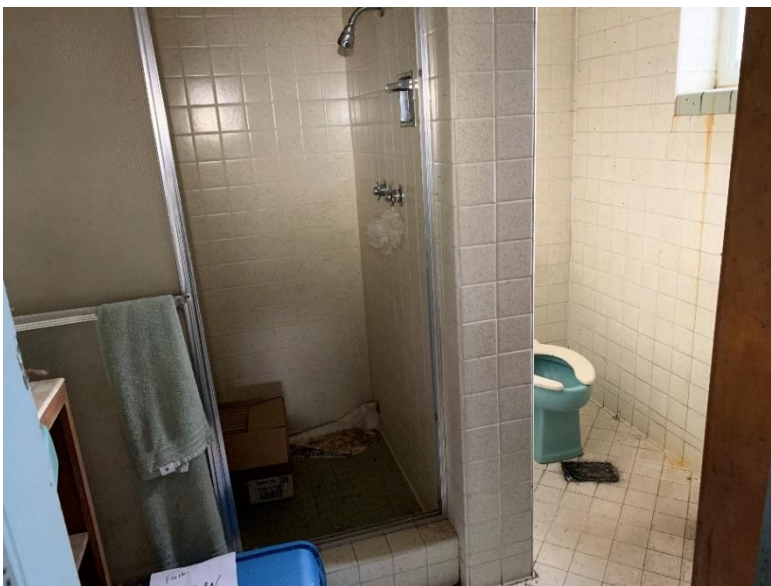


TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in the second floor center hall bathroom.	94
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows green ceramic wall tile in the narcotics room.	95
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows cream with yellow ceramic wall tile and white ceramic floor tile in the narcotics bathroom.	96
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

**Oak Street City Hall Hazardous Materials Survey
Poplar Bluff, Missouri**



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows white ceramic floor tile in Room 3.	97
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019



TETRA TECH PROJECT NO. X9030.19F.0101.005 Direction: NA	DESCRIPTION	This photograph shows the white wood door in the back room of the evidence building.	98
	CLIENT	EPA	Date
	PHOTOGRAPHER	Zach Usher	11/6/2019

APPENDIX B
INSPECTOR CERTIFICATIONS

CERTIFICATION NUMBER:

7011112918MOIR17534

THIS CERTIFIES

Megan B Sawyer

HAS COMPLETED THE CERTIFICATION

REQUIREMENTS FOR

Inspector



APPROVED: **01/17/2019**

TRAINING DATE: **11/29/2018**

EXPIRES: **11/29/2019**


Director of Air Pollution Control Program



**Missouri Department of Health
and Senior Services**



Lead Occupation License - ID Badge
License Number: 150427-300004651

Lead Inspector

**Megan
Sawyer**

Expiration Date: 06/12/2021

CERTIFICATION NUMBER:

7136080519MOIR18920

THIS CERTIFIES

Zachary S Usher

HAS COMPLETED THE CERTIFICATION

REQUIREMENTS FOR

Inspector



APPROVED: **08/30/2019**

TRAINING DATE: **08/05/2019**

EXPIRES: **08/30/2020**

[Signature]
Director of Air Pollution Control Program

APPENDIX C

FIGURES

Sample Key Table					
Key	Sample No.				
Asbestos					
City Hall - First Floor					
1	FT-1	57	FT10-3	115	FT17-1
2	FT-2	58	FT11-1	116	FT17-2
3	FT-3	59	FT11-2	117	FT17-3
4	FT1-1	60	FT11-3	118	CT3-1
5	FT1-2	61	FT12-1	119	CT3-2
6	FT1-3	62	FT12-2	120	CT3-3
7	FT2-1	63	FT12-3	121	CT4-1
8	FT2-2	64	FT13-1	122	CT4-2
9	FT2-3	65	FT13-2	123	CT4-3
10	Terrazzo-1	66	FT13-3	124	FT18-1
11	Terrazzo-2	67	FT14-1	125	FT18-2
12	Terrazzo-3	68	FT14-2	126	FT18-3
13	CB-1	69	FT14-3	127	CTX1-1
14	CB-2	70	SU-1	128	CTX1-2
15	CB-3	71	SU-2	129	CTX1-3
16	CT-1	72	SU-3	130	CT4-1
17	CT-2	73	CTG-1	131	CT4-2
18	CT-3	74	CTG-2	132	CT4-3
19	WM-1	75	CTG-3	133	CT5-1
20	WM-2	76	LIN-1	134	CT5-2
21	WM-3	77	LIN-2	135	CT5-3
22	CM-1	78	LIN-3	136	CM2-1
23	CM-2	79	FT15-1	137	CM2-2
24	CM-3	80	FT15-2	138	CM2-3
25	FT3-1	81	FT15-3	139	FT19-1
26	FT3-2	82	CTX-1	140	FT19-2
27	FT3-3	83	CTX-2	141	FT19-3
28	FT4-1	84	CTX-3	142	TSI-1
29	FT4-2	85	FP-1	143	TSI-2
30	FT4-3	86	FP-2	144	TSI-3
31	FT5-1	87	FP-3	145	TSIJ-1
32	FT5-2	88	CTG1-1	146	TSIJ-2
33	FT5-3	89	CTG1-2	147	TSIJ-3
34	FT6-1	90	CTG1-3	148	FT29-1
35	FT6-2	91	CB1-1	149	FT29-2
36	FT6-3	92	CB1-2	150	FT29-3
37	FT7-1	93	CB1-3	151	DWJC-1
38	FT7-2	94	CT2-1	152	DWJC-2
39	FT7-3	95	CT2-2	153	DWJC-3
40	CT1-1	96	CT2-3	154	DWJC1-1
41	CT1-2	97	WM1-1	155	DWJC1-2
42	CT1-3	98	WM1-2	156	DWJC1-3
43	CT2-1	99	WM1-3	157	DWJC1-4
44	CT2-2	100	CB2-1	158	DWJC1-5
45	CT2-3	101	CB2-2	159	PLSC-1
46	CTM-1	102	CB2-3	160	PLSC-2
47	CTM-2	103	LIN1-1	161	PLSC-3
48	CTM-3	104	LIN1-2	162	PLSC-4
49	FT8-1	105	LIN1-3	163	PLSC-5
50	FT8-2	106	FT16-1	164	PLSC-6
51	FT8-3	107	FT16-2	165	PLSC-7
52	FT9-1	108	FT16-3	166	SPLSC-1
53	FT9-2	109	CM1-1	167	SPLSC-2
54	FT9-3	110	CM1-2	168	SPLSC-3
55	FT10-1	111	CM1-3	169	CB6-1
56	FT10-2	112	CB3-1	170	CB6-2
		113	CB3-2	171	CB6-3
		114	CB3-3		
Polychlorinated biphenyl					
PCB-1		Additional			
PCB-2		Original			

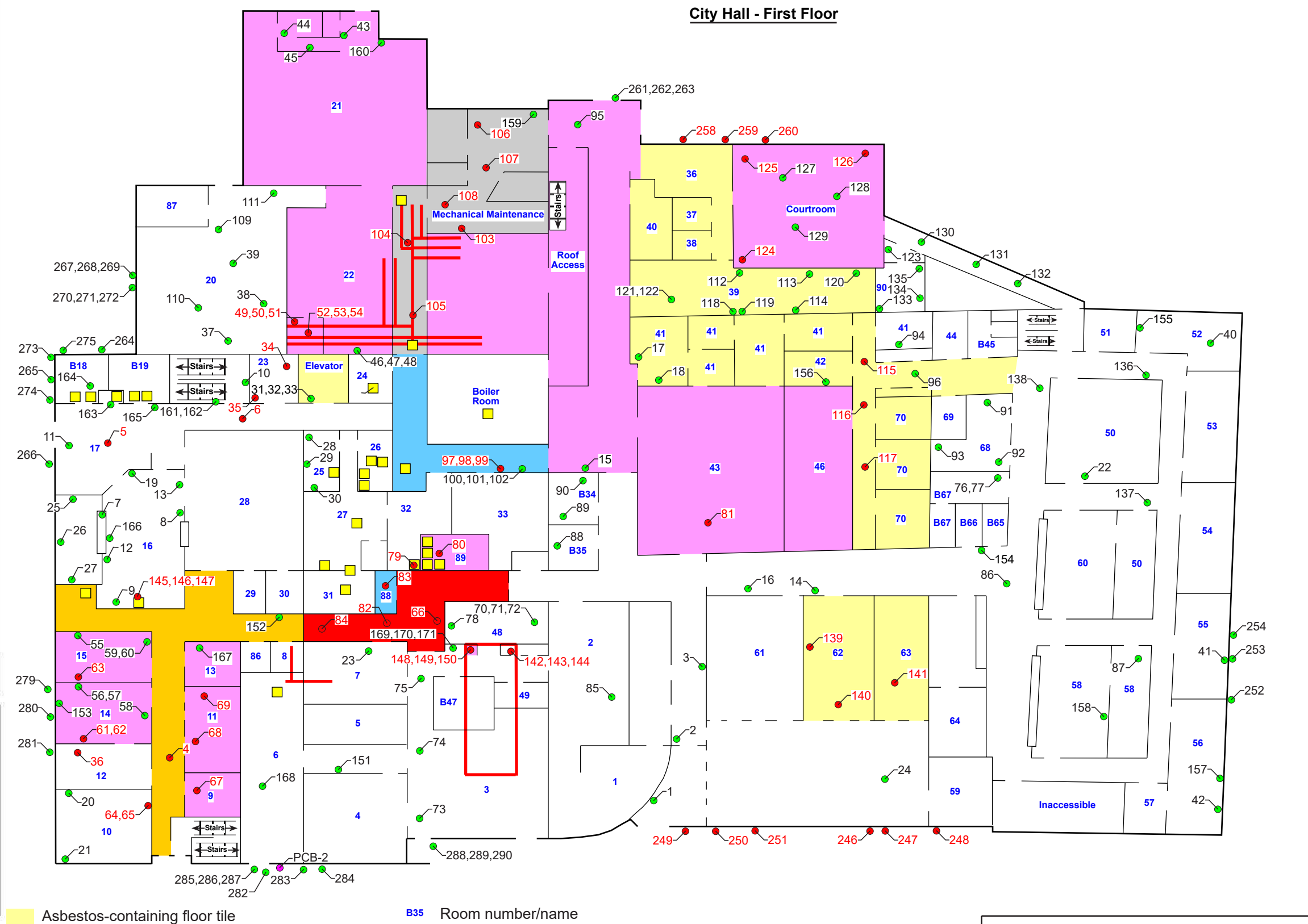
Exterior (All Buildings)	
246	TRAN-1
247	TRAN-2
248	TRAN-3
249	C-1
250	C-2
251	C-3
252	EC-1
253	EC-2
254	EC-3
255	EC1-1
256	EC1-2
257	EC1-3
258	EC2-1
259	EC2-2
260	EC2-3

261	C1-1
262	C1-2
263	C1-3
264	STUCCO-1
265	STUCCO-2
266	STUCCO-3
267	SS-1
268	SS-2
269	SS-3
270	VP-1
271	VP-2
272	VP-3

273	EC3-1
274	EC3-2
275	EC3-3
276	C2-1
277	C2-2
278	C2-3
279	C3-1
280	C3-2
281	C3-3
282	C4-1
283	C4-2
284	C4-3
285	G-1
286	G-2
287	G-3
288	C6-1
289	C6-2
290	C6-3

Legend

- Legend**
- Asbestos-containing material sample location Non-
 - Asbestos-containing material sample location
 - Polychlorinated biphenyl (PCB) sample location
 - Asbestos-containing joint
 - Asbestos-containing thermal system insulation (TSI)



Oak Street City Hall
Poplar Bluff, Missouri

Figure 1A
Asbestos and PCB Sample Location Map

Date: 1/31/2020
Drawn By: Nick Wiederholt
Project No: X803019F0101.005

Note: Room numbers were developed by Tetra Tech.

Sample Key Table		
Key	Sample No.	
Asbestos		
City Hall - Second Floor		
172	CB4-1	246
173	CB4-2	247
174	CB4-3	248
175	CTG2-1	249
176	CTG2-2	250
177	CTG2-3	251
178	CTM1-1	252
179	CTM1-2	253
180	CTM1-3	254
181	FT20-1	255
182	FT20-2	256
183	FT20-3	257
184	CM3-1	258
185	CM3-2	259
186	CM3-3	260
187	CM4-1	261
188	CM4-2	262
189	CM4-3	263
190	WM2-1	264
191	WM2-2	265
192	WM2-3	266
193	CT6-1	267
194	CT6-2	268
195	CT6-3	269
196	LIN2-1	270
197	LIN2-2	271
198	LIN2-3	272
199	LIN3-1	273
200	LIN3-2	274
201	LIN3-3	275
202	SU1-1	276
203	SU1-2	277
204	SU1-3	278
205	CTM2-1	279
206	CTM2-2	280
207	CTM2-3	281
208	FT21-1	282
209	FT21-2	283
210	FT21-3	284
211	CT7-1	285
212	CT7-2	286
213	CT7-3	287
214	FT22-1	288
215	FT22-2	289
216	FT22-3	290
217	LIN4-1	291
218	LIN4-2	292
219	LIN4-3	293
220	FT23-1	294
221	FT23-2	295
222	FT23-3	296
223	LIN5-1	297
224	LIN5-2	298
225	LIN5-3	299
226	FT24-1	
227	FT24-2	
228	FT24-3	
229	CB5-1	
230	CB5-2	
231	CB5-3	
232	FT26-1	
233	FT26-2	
234	FT26-3	
235	FT27-1	
236	FT27-2	
237	FT27-3	
238	FT28-1	
239	FT28-2	
240	FT28-3	
241	PLSC1-1	
242	PLSC1-2	
243	PLSC1-3	
244	PLSC1-4	
245	PLSC1-5	

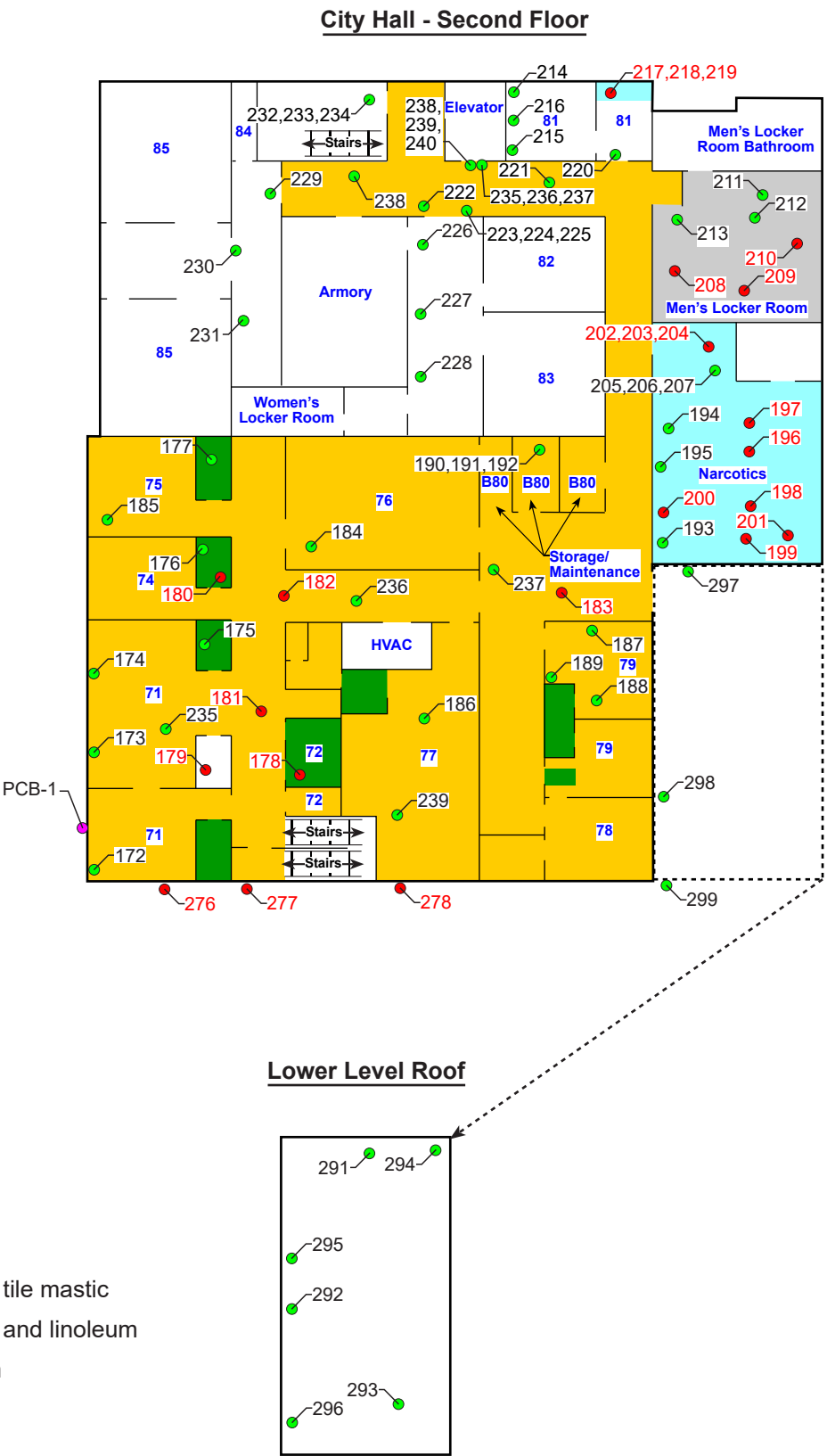
Exterior (All Buildings)		
246	TRAN-1	
247	TRAN-2	
248	TRAN-3	
249	C-1	
250	C-2	
251	C-3	
252	EC-1	
253	EC-2	
254	EC-3	
255	EC1-1	
256	EC1-2	
257	EC1-3	
258	EC2-1	
259	EC2-2	
260	EC2-3	
261	C1-1	
262	C1-2	
263	C1-3	
264	STUCCO-1	
265	STUCCO-2	
266	STUCCO-3	
267	SS-1	
268	SS-2	
269	SS-3	
270	VP-1	
271	VP-2	
272	VP-3	
273	EC3-1	
274	EC3-2	
275	EC3-3	
276	C2-1	
277	C2-2	
278	C2-3	
279	C3-1	
280	C3-2	
281	C3-3	
282	C4-1	
283	C4-2	
284	C4-3	
285	G-1	
286	G-2	
287	G-3	
288	C6-1	
289	C6-2	
290	C6-3	
Oak St. City Hall - Roof		
291	RC-1	
292	RC-2	
293	RC-3	
294	FL-1	
295	FL-2	
296	FL-3	
297	CS-1	
298	CS-2	
299	CS-3	

Polychlorinated biphenyl		
PCB-1	Additional	
PCB-2	Original	

Legend

- Asbestos-containing material sample location
- Non-asbestos-containing material sample location
- Polychlorinated biphenyl (PCB) sample location
- Room number/name

- Asbestos-containing ceramic tile mastic
- Asbestos-containing floor tile and linoleum
- Asbestos-containing linoleum
- Asbestos-containing mastic



Note: Room numbers were developed by Tetra Tech.



Oak Street City Hall
Poplar Bluff, Missouri

Figure 1B
Asbestos and PCB Sample Location Map

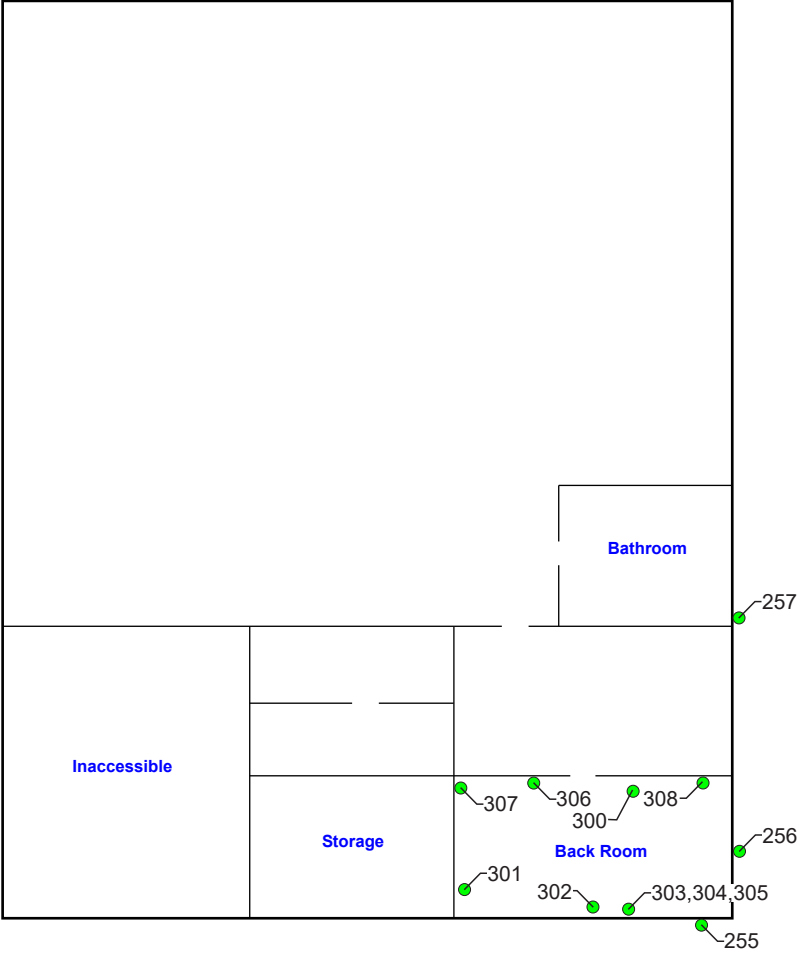
TETRA TECH

Date: 1/31/2020 Drawn By: Nick Wiederholt Project No: X803019F0101.005

Evidence Building	
300	FT30-1
301	FT30-2
302	FT30-3
303	G1-1
304	G1-2
305	G1-3
306	CB7-1
307	CB7-2
308	CB7-3

Exterior (All Buildings)	
246	TRAN-1
247	TRAN-2
248	TRAN-3
249	C-1
250	C-2
251	C-3
252	EC-1
253	EC-2
254	EC-3
255	EC1-1
256	EC1-2
257	EC1-3
258	EC2-1
259	EC2-2
260	EC2-3
261	C1-1
262	C1-2
263	C1-3
264	STUCCO-1
265	STUCCO-2
266	STUCCO-3
267	SS-1
268	SS-2
269	SS-3
270	VP-1
271	VP-2
272	VP-3
273	EC3-1
274	EC3-2
275	EC3-3
276	C2-1
277	C2-2
278	C2-3
279	C3-1
280	C3-2
281	C3-3
282	C4-1
283	C4-2
284	C4-3
285	G-1
286	G-2
287	G-3
288	C6-1
289	C6-2
290	C6-3

Evidence Building



Legend

- Non-asbestos-containing material sample location
- 72 Room number/name

Note: Room numbers were developed by Tetra Tech.



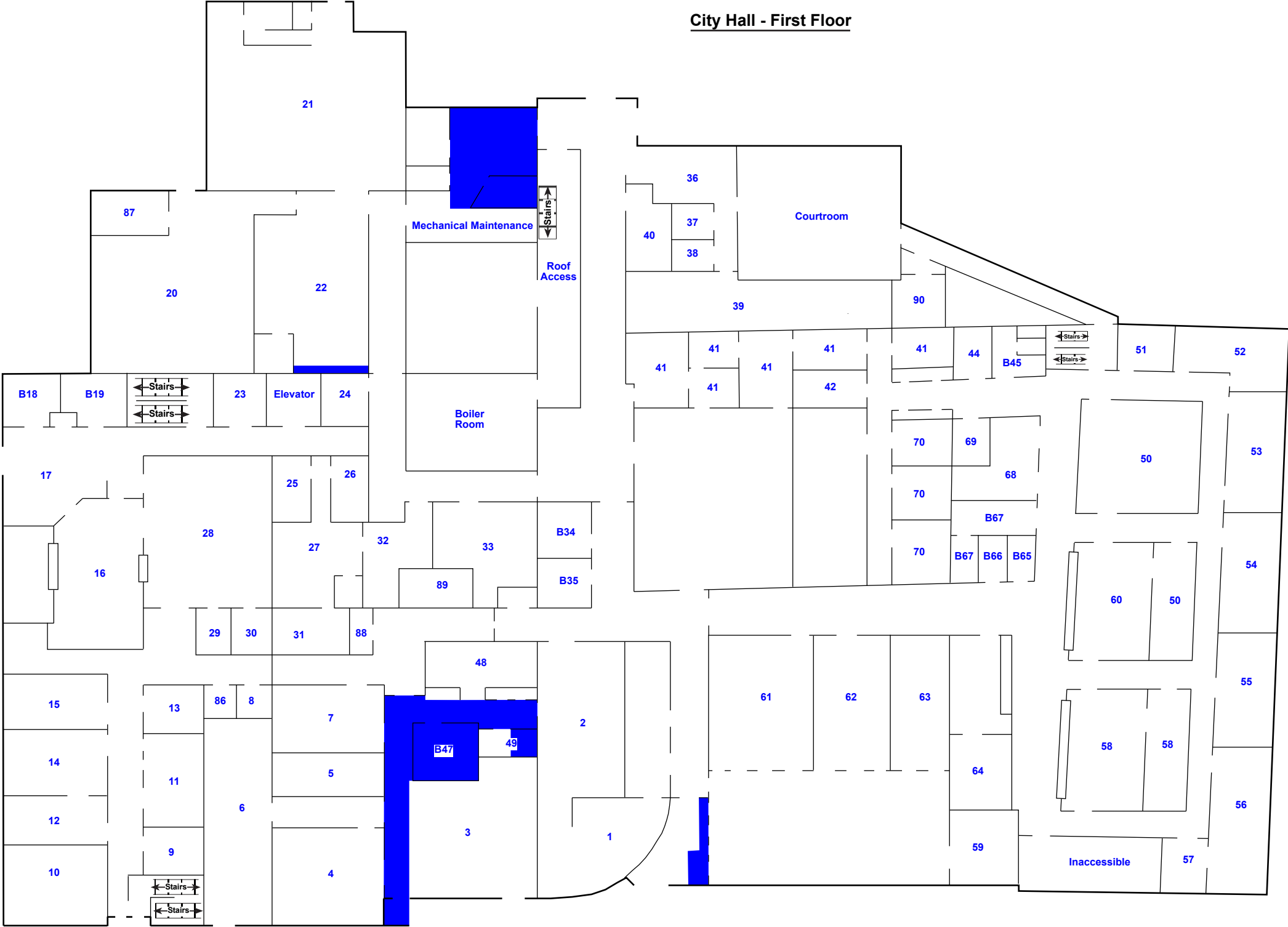
Oak Street City Hall
Poplar Bluff, Missouri

Figure 1C
Asbestos Sample Location Map



X:\930301\01\05\FH\10\Revised\Figure2A_LBP\FH10

City Hall - First Floor



Legend

- Area containing lead-based paint (LBP)
- B35 Room number/name

Note: Room numbers were developed by Tetra Tech.



Oak Street City Hall
Poplar Bluff, Missouri

Figure 2A
LBP Location Map



The floor plan of the second floor of the FBI Laboratory includes the following rooms and features:

- Room 85:** Located in the top left and middle left sections.
- Room 84:** Located at the top left, containing a staircase.
- Elevator:** Located at the top center.
- Room 81:** Located at the top right.
- Men's Locker Room Bathroom:** Located at the top right.
- Armory:** A large central room.
- Room 82:** Located to the right of the Armory.
- Room 83:** Located below Room 82.
- Women's Locker Room:** Located below the Armory.
- Room 76:** A large central room below the Armory.
- Room 75:** Located to the left of Room 76.
- Room 74:** Located below Room 75.
- Room 71:** Located on the bottom left.
- Room 72:** Located in the bottom center, containing a staircase.
- HVAC:** Located in the bottom center.
- Room 77:** Located to the right of Room 72.
- Room 79:** Located on the bottom right.
- Room 78:** Located at the bottom right.
- Storage/Maintenance:** Located to the right of Room 76, containing evidence markers B80 and B80.
- Narcotics:** Located on the far right.
- Men's Locker Room:** Located on the far right.

Note: Room numbers were developed by Tetra Tech.



Oak Street City Hall
Poplar Bluff, Missouri

Figure 2B
LBP Location Map



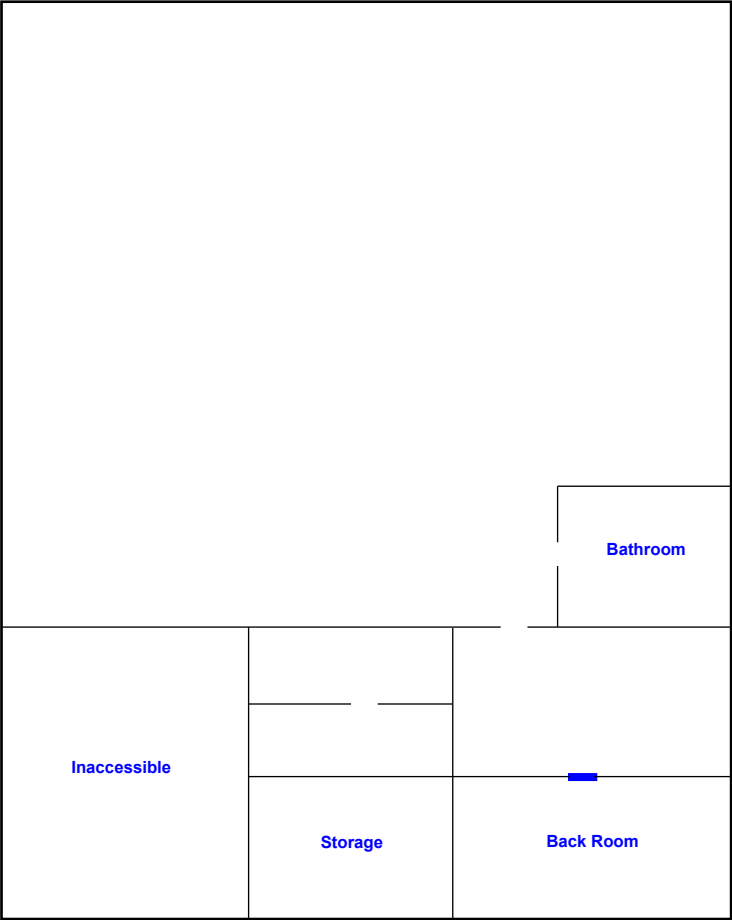
Date: 1/31/2020

Drawn By: Nick Wiederholt

Project No: X903019F0101.005

X:\903019F0101\005\FH10\Revised\Figure2C_LBP\FH10

Evidence Building



Legend

- Area containing lead-based paint (LBP)
- B35 Room number/name

Note: Room numbers were developed by Tetra Tech.



Oak Street City Hall
Poplar Bluff, Missouri

Figure 2C
LBP Location Map



APPENDIX D

ACM ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	FT-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
001a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
002	FT-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
002a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
003	FT-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
003a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
004	FT1-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
004a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
005	FT1-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
005a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
006	FT1-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
006a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
007	FT2-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
007b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
008	FT2-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
008a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
008b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
009	FT2-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
009a		Layered	Pink Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
009b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
010	Terrazzo-1	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
011	Terrazzo-2	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
012	Terrazzo-3	Homogeneous	Tan Terrazzo	Asbestos Not Present	NA	CaCO3 Quartz Binder
013	CB-1	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
013a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
014	CB-2	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO ₃
014a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
015	CB-3	Layered	Black Cove Base	Asbestos Not Present	NA	Vinyl CaCO ₃
015a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
015b		Layered	Brown Mastic	Asbestos Not Present	Talc	4 Glue
015c		Layered	Tan Joint Compound	Asbestos Present Chrysotile	NA	CaCO ₃
				2		
016	CT-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 Perlite 30 Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
017	CT-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint
018	CT-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30	Perlite Paint
019	WM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
020	WM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
021	WM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
022	CM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
023	CM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
024	CM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
025	FT4-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
025a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
026	FT4-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
026a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
027	FT4-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
027a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
028	FT5-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO ₃
028a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
029	FT5-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO ₃
029a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
030	FT5-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO ₃

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
030a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
031	FT6-1	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
031a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
032	FT6-2	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
032a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
033	FT6-3	Layered	Gray Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
033a		Layered	Black Mastic	Asbestos Not Present	NA	Tar

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
034	FT7-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3 Sand
034a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
034b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	Sand CaCO3
035	FT7-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3 Sand
035a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
036	FT7-3	Homogeneous	Gray Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
037	CT1-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
038	CT1-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
039	CT1-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 10 Glass Fiber 80	Paint
040	CT2-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
041	CT2-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
042	CT2-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
043	CTM-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue

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Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
044	CTM-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
045	CTM-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
046	FT8-1	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
046a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
047	FT8-2	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
047a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
048	FT8-3	Layered	Red Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
048a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
049	FT9-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3
049a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
050	FT9-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3
050a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
051	FT9-3	Layered	Brown Floor Tile	Asbestos Present Chrysotile 6	NA	Vinyl CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
051a		Layered	Black Mastic	Asbestos Present Chrysotile 10	NA	Tar
052	FT10-1	Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
052a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
053	FT10-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
053a		Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
053b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
054	FT10-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
054a		Layered	Red Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
054b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
055	FT11-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
055a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO3
055b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
056	FT11-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
056a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
056b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
057	FT11-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
057a		Layered	Green Floor Tile	Asbestos Not Present	NA	Vinyl CaCO ₃
057b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
058	FT12-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃

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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
058a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃
058b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
059	FT12-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
059a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃
059b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
060	FT12-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
060a		Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
060b		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
061	FT13-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
061a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
061b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
062	FT13-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO3
062a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
062b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO ₃
063	FT13-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	Vinyl CaCO ₃
063a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
063b		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO ₃
064	FT14-1	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃
064a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
065	FT14-2	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
065a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
066	FT14-3	Layered	Beige Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
066a		Layered	Black Mastic	Asbestos Present Chrysotile 8	NA	Tar
067	SU-1	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder
068	SU-2	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder
069	SU-3	Homogeneous	White Sink Undercoat	Asbestos Not Present	Cellulose 10	CaCO3 Binder

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
070	CTG-1	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
071	CTG-2	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
072	CTG-3	Homogeneous	Gray Grout	Asbestos Not Present	NA	Sand Binder
073	LIN-1	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder
073a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
073b		Layered	Black Leveling Compound	Asbestos Not Present	NA	CaCO3 Sand
074	LIN-2	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder

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Date Received:	11/13/2019		
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Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
074a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
074b		Layered	Black Leveling Compound	Asbestos Not Present	NA	CaCO ₃ Sand
075	LIN-3	Layered	Brown Sheet Vinyl	Asbestos Not Present	Cellulose 10 Synthetic 15	Vinyl Binder
075a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
076	FT15-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
076a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
077	FT15-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
077a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
078	FT15-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
078a		Layered	Brown Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO3
078b		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
079	CTX-1	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
080	CTX-2	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint
081	CTX-3	Homogeneous	White Ceiling Texture	Asbestos Present Chrysotile 5	NA	CaCO3 Perlite Paint
082	FP-1	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
083	FP-2	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
084	FP-3	Homogeneous	Brown Fireproofing	Asbestos Not Present	Cellulose 100	
085	CTG1-1	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand
086	CTG1-2	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
087	CTG1-3	Homogeneous	White Grout	Asbestos Not Present	NA	CaCO3 Sand
088	CB1-1	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
088a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
088b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
089	CB1-2	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
089a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
089b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
090	CB1-3	Layered	Tan Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
090a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
090b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
091	CT2-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
092	CT2-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
093	CT2-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
094	WM1-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
094a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint
095	WM1-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
095a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint
096	WM1-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
096a		Layered	White Texture	Asbestos Present Chrysotile 4	NA	CaCO3 Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
097	CB2-1	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
098	CB2-2	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue
099	CB2-3	Homogeneous	Brown Mastic	Asbestos Not Present	NA	Glue CaCO ₃
100	LIN1-1	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
101	LIN1-2	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
102	LIN1-3	Homogeneous	Brown Sheet Vinyl	Asbestos Present Chrysotile 25	NA	Vinyl Binder
103	FT16-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO ₃

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
103a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
104	FT16-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
104a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
105	FT16-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 5	NA	Vinyl CaCO3
105a		Layered	Black Mastic	Asbestos Not Present	NA	Tar CaCO3
106	CM1-1	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
106a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
107	CM1-2	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
107a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
108	CM1-3	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
108a		Layered	White Mastic	Asbestos Not Present	NA	Glue CaCO3
109	CB3-1	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
110	CB3-2	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
111	CB3-3	Homogeneous	Yellow Mastic	Asbestos Not Present	NA	Glue
112	FT17-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
112a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
113	FT17-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
113a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
114	FT17-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃

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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
114a		Layered	Black Mastic	Asbestos Not Present	NA	Tar
115	CT3-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
116	CT3-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
117	CT3-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
118	CT4-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 30 Perlite Paint
119	CT4-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 30 Perlite Paint
120	CT4-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	40 30 Perlite Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
121	FT18-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
121a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃
121b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
122	FT18-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
122a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO ₃
122b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
123	FT18-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
123a		Layered	Cream Floor Tile	Asbestos Present Chrysotile 4	NA	Vinyl CaCO3
123b		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
124	CTX1-1	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Mica Paint
124a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum
125	CTX1-2	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Mica Paint
125a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum

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Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
126	CTX1-3	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO ₃ Mica Paint
126a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 25	Gypsum
127	CT4-1	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
128	CT4-2	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
129	CT4-3	Homogeneous	Tan Ceiling Tile	Asbestos Not Present	Cellulose 90	Paint
130	CT5-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
131	CT5-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
132	CT5-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Foam
133	CM2-1	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO ₃
134	CM2-2	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO ₃
135	CM2-3	Homogeneous	Black Mastic	Asbestos Not Present	NA	Glue CaCO ₃
136	FT19-1	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
136a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
137	FT19-2	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
137a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
138	FT19-3	Layered	Cream Floor Tile	Asbestos Present Chrysotile 8	NA	Vinyl CaCO ₃
138a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
139	TSI-1	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder
140	TSI-2	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder

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Quantem Lab No. 316871

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Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
141	TSI-3	Homogeneous	Gray Insulation	Asbestos Present Chrysotile 60	Cellulose 30	Binder
142	TSIJ-1	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO ₃
143	TSIJ-2	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO ₃
144	TSIJ-3	Homogeneous	Light Gray Insulation	Asbestos Present Chrysotile 30	NA	CaCO ₃
145	CB4-1	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO ₃
145a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
146	CB4-2	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO ₃

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
146a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
146b		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
147	CB4-3	Layered	Gray Cove Base	Asbestos Not Present	NA	Vinyl CaCO3
147a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO3
147b		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Paint
148	CTG2-1	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
149	CTG2-2	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand
150	CTG2-3	Homogeneous	Gray Grout	Asbestos Not Present	NA	CaCO3 Sand
151	CTM1-1	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
152	CTM1-2	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
153	CTM1-3	Homogeneous	Tan Mastic	Asbestos Present Chrysotile 4	NA	Glue CaCO3
154	FT20-1	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
154a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
155	FT20-2	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
155a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar
156	FT20-3	Layered	Beige/Brown Floor Tile	Asbestos Present Chrysotile 2	NA	CaCO3 Vinyl
156a		Layered	Black Mastic	Asbestos Present Chrysotile 6	NA	Tar
157	CM3-1	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue
158	CM3-2	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
159	CM3-3	Homogeneous	Yellow Carpet Mastic	Asbestos Not Present	NA	Glue
160	CM4-1	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
160a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue
161	CM4-2	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
161a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue
162	CM4-3	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
162a		Layered	Tan Mastic	Asbestos Not Present	NA	Glue

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
163	WM2-1	Homogeneous	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
164	WM2-2	Homogeneous	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
165	WM2-3	Layered	Tan Mastic	Asbestos Not Present	NA	Glue CaCO3
165a		Layered	White Texture	Asbestos Not Present	NA	CaCO3 Sand
166	CT6-1	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint
167	CT6-2	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
168	CT6-3	Homogeneous	White Ceiling Tile	Asbestos Not Present	NA	Perlite Binder Paint
169	LIN2-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
169a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
170	LIN2-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
170a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3
171	LIN2-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
171a		Layered	Yellow Linoleum	Asbestos Present Chrysotile 20	NA	Vinyl CaCO3

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
172	LIN3-1	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
173	LIN3-2	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
174	LIN3-3	Homogeneous	Gray Backing	Asbestos Present Chrysotile 65	NA	Binder
175	SU1-1	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar
176	SU1-2	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar
177	SU1-3	Homogeneous	Black Sink Undercoat	Asbestos Present Chrysotile 5	NA	CaCO3 Tar

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
178	CTM2-1	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
178a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
179	CTM2-2	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
179a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
180	CTM2-3	Layered	Green Ceramic Tile	Asbestos Not Present	NA	Clay Sand
180a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
181	FT21-1	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3

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Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
181a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
181b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
182	FT21-2	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3
182a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
182b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
183	FT21-3	Layered	Tan Sheet Vinyl Backing	Asbestos Present Chrysotile 60	NA	CaCO3

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
183a		Layered	Gray Floor Tile	Asbestos Present Chrysotile 5	NA	CaCO3 Vinyl
183b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
184	CT7-1	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
185	CT7-2	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
186	CT7-3	Homogeneous	Cream Ceiling Tile	Asbestos Not Present	Glass Fiber 90	Vinyl
187	FT22-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
187a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
188	FT22-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
188a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
189	FT22-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
189a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
190	LIN4-1	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose	5 CaCO3 Vinyl
191	LIN4-2	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose	5 CaCO3 Vinyl

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
192	LIN4-3	Homogeneous	Tan Sheet Vinyl	Asbestos Present Chrysotile 15	Cellulose 5	CaCO3 Vinyl
193	FT23-1	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
193a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
193b		Layered	Black Mastic	Asbestos Not Present	NA	Tar
194	FT23-2	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
194a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
194b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
195	FT23-3	Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
195a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
195b		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
196	LIN5-1	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
196a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
197	LIN5-2	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
197a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
198	LIN5-3	Layered	Brown Linoleum	Asbestos Not Present	Cellulose 35	CaCO3 Vinyl Tar
198a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
199	FT24-1	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
199a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue
200	FT24-2	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
200a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
201	FT24-3	Layered	Tan Flooring	Asbestos Not Present	NA	CaCO3 Vinyl
201a		Layered	Yellow Mastic	Asbestos Not Present	NA	CaCO3 Glue
202	CB5-1	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
202a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
203	CB5-2	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
203a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
204	CB5-3	Layered	Light Blue Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
204a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
205	FT26-1	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
205a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
206	FT26-2	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
206a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
207	FT26-3	Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl

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QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
207a		Layered	Brown Mastic	Asbestos Present Chrysotile 3	NA	Glue
208	FT27-1	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
208a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
209	FT27-2	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl
209a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
210	FT27-3	Layered	Tan Floor Tile	Asbestos Present Chrysotile 3	NA	CaCO3 Vinyl

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
210a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
211	FT28-1	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
211a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
211b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue
212	FT28-2	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
212a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
212b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
213	FT28-3	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
213a		Layered	Gray Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
213b		Layered	Brown Mastic	Asbestos Not Present	NA	CaCO3 Glue
214	TRAN-1	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint
215	TRAN-2	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint
216	TRAN-3	Homogeneous	White Transite	Asbestos Present Chrysotile 20	NA	CaCO3 Paint

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
217	DWJC-1	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO ₃
217a		Layered	White Sheetrock	Asbestos Not Present	Cellulose Glass Fiber	10 5 Gypsum
218	DWJC-2	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO ₃
218a		Layered	White Sheetrock	Asbestos Not Present	Cellulose Glass Fiber	10 5 Gypsum
219	DWJC-3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO ₃
219a		Layered	White Sheetrock	Asbestos Not Present	Cellulose Glass Fiber	10 5 Gypsum
220	DWJC1-1	Layered	Tan Joint Compound	Asbestos Present Chrysotile	NA	CaCO ₃
				3		

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
220a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
221	DWJC1-2	Layered	Tan Joint Compound	Asbestos Present Chrysotile 3	NA	CaCO3
221a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
222	DWJC1-3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
222a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
223	DWJC1-4	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3

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Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
223a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
224	DWJC1-5	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
224a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 15	Gypsum
225	PLSC-1	Homogeneous	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand Paint
226	PLSC-2	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
226a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
227	PLSC-3	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
227a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
228	PLSC-4	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
228a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
229	PLSC-5	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
229a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
230	PLSC-6	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
230a		Layered	Tan Plaster	Asbestos Not Present	NA	Gypsum Sand
231	PLSC-7	Homogeneous	White Plaster	Asbestos Not Present	NA	Gypsum Mica
232	SPLSC-1	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
233	SPLSC-2	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
234	SPLSC-3	Homogeneous	White Plaster	Asbestos Not Present	NA	CaCO3 Gypsum Mica
235	PLSC1-1	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
235a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
236	PLSC1-2	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
236a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
237	PLSC1-3	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
237a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
238	PLSC1-4	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint

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Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
238a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
239	PLSC1-5	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Paint
239a		Layered	Tan Plaster	Asbestos Not Present	Cellulose <1	CaCO3 Gypsum Sand
240	CB6-1	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
240a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
241	CB6-2	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
241a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
242	CB6-3	Layered	Pink Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
242a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
243	C-1	Homogeneous	Gray Caulk	Asbestos Present Chrysotile 5	NA	CaCO3 Binder
244	C-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	CaCO3 Binder
245	C-3	Homogeneous	Gray Caulk	Asbestos Present Chrysotile 5	NA	CaCO3 Binder
246	EC-1	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar

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Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
247	EC-2	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar
248	EC-3	Homogeneous	Black Caulk	Asbestos Not Present	Cellulose 10	Tar
249	EC1-1	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
250	EC1-2	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
251	EC1-3	Homogeneous	White Caulk	Asbestos Not Present	NA	CaCO3 Binder
252	EC2-1	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar
253	EC2-2	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
254	EC2-3	Homogeneous	Black Caulk	Asbestos Present Chrysotile 10	Cellulose 10	Tar
255	C1-1	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
256	C1-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
257	C1-3	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
258	STUCCO-1	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
258a		Layered	Gray Stucco	Asbestos Not Present	Glass Fiber 5	CaCO3 Sand Foam

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
259	STUCCO-2	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
259a		Layered	Gray Stucco	Asbestos Not Present	NA	CaCO ₃ Sand Foam
260	STUCCO-3	Layered	Beige Stucco	Asbestos Not Present	NA	Sand Binder
260a		Layered	Gray Stucco	Asbestos Not Present	Glass Fiber	5 CaCO ₃ Sand Foam
261	SS-1	Layered	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand
261a		Layered	Black Tar	Asbestos Not Present	NA	Tar
262	SS-2	Layered	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
262a		Layered	Black Tar	Asbestos Not Present	NA	Tar
263	SS-3	Homogeneous	Tan/Black Shingle	Asbestos Not Present	Glass Fiber	25 Tar Sand
264	VP-1	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
265	VP-2	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
266	VP-3	Homogeneous	Black Vapor Barrier	Asbestos Not Present	Cellulose	70 Tar
267	EC3-1	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
268	EC3-2	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
269	EC3-3	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
270	C2-1	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone
270a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
271	C2-2	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone
271a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
272	C2-3	Layered	Brown Caulk	Asbestos Not Present	NA	Silicone

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
272a		Layered	White Caulk	Asbestos Present Chrysotile 5	NA	CaCO3
273	C3-1	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
274	C3-2	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
275	C3-3	Homogeneous	Clear Caulk	Asbestos Not Present	NA	Silicone
276	C4-1	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
277	C4-2	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone

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Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
278	C4-3	Homogeneous	Gray Caulk	Asbestos Not Present	NA	Silicone
279	G-1	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
280	G-2	Homogeneous	Black Caulk	Asbestos Not Present	NA	CaCO3 Binder
281	G-3	Homogeneous	Black Caulk	Asbestos Not Present	NA	CaCO3 Binder
282	C6-1	Homogeneous	Tan Caulk	Asbestos Not Present	NA	CaCO3 Binder
283	C6-2	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder
284	C6-3	Homogeneous	Brown Caulk	Asbestos Not Present	NA	CaCO3 Binder

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
285	FT30-1	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
285a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
286	FT30-2	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
286a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
287	FT30-3	Layered	White Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
287a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
288	G1-1	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
289	G1-2	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
290	G1-3	Homogeneous	Gray Window Glazing	Asbestos Not Present	NA	CaCO3
291	CB7-1	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
291a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
292	CB7-2	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
292a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue

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Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
293	CB7-3	Layered	Brown Cove Base	Asbestos Not Present	NA	CaCO3 Vinyl
293a		Layered	Brown Mastic	Asbestos Not Present	NA	Glue
294	RC-1	Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO3
294a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel
295	RC-2	Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO3
295a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
296	RC-3	Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO ₃
296a		Layered	Black Roofing	Asbestos Not Present	NA	Tar Gravel
297	FL-1	Layered	White/Black Roofing	Asbestos Not Present	Cellulose	40 Tar Sand
297a		Layered	Black Roofing	Asbestos Not Present	Synthetic	25 Tar CaCO ₃
297b		Layered	Black Tar	Asbestos Not Present	NA	Tar
297c		Layered	Red Brick	Asbestos Not Present	NA	Clay Sand
298	FL-2	Layered	White/Black Roofing	Asbestos Not Present	Cellulose	40 Tar Sand

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Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
298a		Layered	Black Tar	Asbestos Not Present	NA	Tar
299	FL-3	Layered	Black Roofing	Asbestos Not Present	Cellulose 40 Glass Fiber 5	Tar
299a		Layered	Black Tar	Asbestos Not Present	NA	Tar
299b		Layered	Black Roofing	Asbestos Not Present	Synthetic 25	Tar CaCO ₃
299c		Layered	Black Tar	Asbestos Not Present	Cellulose 10	Tar
300	CS-1	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose 5	Tar

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Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
301	CS-2	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose	5 Tar
302	CS-3	Homogeneous	Black Sealant	Asbestos Not Present	Cellulose	5 Tar
303	FT3-1	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
303a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
304	FT3-2	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl
304a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
305	FT3-3	Layered	Beige Floor Tile	Asbestos Not Present	NA	CaCO3 Vinyl

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No.	316871	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/13/2019		
Received By:	Elena LaFarge		
Date Analyzed:	11/19/2019	Project:	103X903019F0101.005
Analyzed By:	Carter W. Cox	Project Location:	N/A
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
305a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
306	FT29-1	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl
306a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
307	FT29-2	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl
307a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar
308	FT29-3	Layered	Brown Floor Tile	Asbestos Present Chrysotile 10	NA	CaCO3 Vinyl

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 316871

Account Number: B229

Date Received: 11/13/2019

Received By: Elena LaFarge

Date Analyzed: 11/19/2019

Analyzed By: Carter W. Cox

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: N/A

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
308a		Layered	Black Mastic	Asbestos Present Chrysotile 5	NA	Tar

Cassie Sanborn

Cassie Sanborn, Analyst

11/21/2019

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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316871

Asbestos Bulk Building Material Chain of Custody

Company: Tetra Tech		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 415 oak street		Third Party Billing requires written authorization from third party	
City: Kansas City	State/Province: MO	Zip/Postal Code: 64106	Country: US
Report To (Name): Michelle Handley		Telephone #: 3143796336	
Email Address: michelle.Handley@tetrattech.com		Fax #:	Purchase Order:
Project Name/Number: 103X903019F0101.005		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check							
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
<small>*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.</small>							

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <div style="text-align: center;">Other</div> <input type="checkbox"/>

<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group	Date Sampled: 11/8/2019
Samplers Name: Megan Sawyer	Samplers Signature: <i>Megan Sawyer</i>

Sample #	HA #	Sample Location	Material Description
1 FT-1	1	NA	12x12 Gray Stick on
2 1-2	1	↓	Floor tile
3 1-3	1	↓	↓
4 FT1-1	2	NA	12x12 white w/black
5 1-2	2	↓	Streaks floor tile
6 1-3	2	↓	↓
7 FT2-1	3	↓	12x12 Pink w/black
8 1-2	3	↓	dots floor tile
9 1-3	3	↓	↓
10 Terrazzo-1	4	↓	Terrazzo, Tan

Client Sample # (s): 1 → H#100	Total # of Samples: 3/0
Relinquished (Client): <i>Megan Sawyer (T)</i>	Date: 11/11/2019 Time: 1400
Received (Lab):	Date: 11/13/19 Time: 8:30AM
Comments/Special Instructions:	

Elena Sawyer

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
11 Terrazzo-2	4	NA	
12 ↓ -3	4		
13 CB-1	5		4" Black Cove Base
14 ↓ -2	5		↓
15 ↓ -3	5		
16 CT-1	6		2x4 White Lissure & Pinhole
17 ↓ -2	6		↓
18 ↓ -3	6		
19 WM-1	7		Wall Panel Mastic, Wood Walls
20 ↓ -2	7		↓
21 ↓ -3	7		
22 CM-1	8		Yellow Carpet Mastic
23 ↓ -2	8		↓
24 ↓ -3	8		
25 FT4-1	9		12x12 Beige w/Pink Streaks Floor tile
26 ↓ -2	9		↓
27 ↓ -3	9		
28 FT5-1	10		12x12 thin brown w/tan streaks floor tile
29 ↓ -2	10		
30 ↓ -3	10		
31 FT6-1	11		9x9 gray w/red & brown streaks floor tile
32 ↓ -2	11		↓
33 ↓ -3	11		
34 FT7-1	12		9x9 gray w/white &
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

	Sample #	HA #	Sample Location	Material Description
35	FT7-2	12	NA	black dots floor tile
36	↓ -3	12		
37	CT1-1	13		12"x12" fissure & pinhole
38	↓ -2	13		ceiling tile, white, w/
39	↓ -3	13		glue pucks
40	CT2-1	14		12x4 gypsum white
41	↓ -2	14		ceiling tile
42	↓ -3	14		↓
43	CTM-1	15		Ceramic tile mastic,
44	↓ -2	15		green wall tile
45	↓ -3	15		↓
46	FT8-1	16		9x9 Red floor tile
47	↓ -2	16		↓
48	↓ -3	16		
49	FT9-1	17		9x9 Black floor tile
50	↓ -2	17		↓
51	↓ -3	17		
52	FT10-1	18		12x12 Hot Pink floor
53	↓ -2	18		tile
54	↓ -3	18		↓
55	FT11-1	19		12x12 Turquoise floor
56	↓ -2	19		tile
57	↓ -3	19		↓
58	FT12-1	20	↓	12x12 gray white &
*Comments/Special Instructions:				

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
59 FT12-2	20	NA	Green cobblestone
60 -3	20		Floor tile
61 FT13-1	21		12x12 tan w/brown
62 ↓ -2	21		streaks floor tile
63 ↓ -3	21		↓
64 MS FT14-1	22		12x12 beige w/tan
65 ↓ -2	22		cobblestone floor tile
66 ↓ -3	22		↓
67 SD-1	23		White Sink Undercoat
68 ↓ -2	23		↓
69 ↓ -3	23		
70 CT4-1	24		White Ceramic tile grout
71 ↓ -2	24		↓
72 ↓ -3	24		
73 LIN-1	25		Brown linoleum
74 ↓ -2	25		↓
75 ↓ -3	25		
76 FT15-1	26		9x9 Brown w/black
77 ↓ -2	26		streaks floor tile
78 ↓ -3	26		↓
79 CTX-1	27		White ceiling Texture
80 ↓ -2	27		↓
81 ↓ -3	27		
82 FP-1	28		Brown fireproofing
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
83-82 FP-2	28	NA	
84-3	28		
85-CTE1-1	29		Tan Ceramic tile
86-1-2	29		grout
87-1-3	29		
88-CBL-1	30		4" Tan Cove Base
89-1-2	30		↓
90-1-3	30		
91-CT2-1	31		12"x12" white pinhole ceiling tile
92-1-2	31		↓
93-1-3	31		
94-WM1-1	32		White Plastic wall paneling mastic
95-1-2	32		↓
96-1-3	32		
97-CB2-1	33		4" Brown Cove Base
98-1-2	33		↓
99-1-3	33		
100-LFNI-1	34		Tan Linoleum
101-1-2	34		↓
102-1-3	34		
103-FT16-1	35		9x9 maroon floor tile
104-1-2	35		↓
105-1-3	35		
106-CM1-1	36	↓	Wall Carpet Mastic
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material
Chain of Custody
EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
107 CMI-2	36	NA	
108 -3	36		
109 CB3-1	37		4" Gray Cove Base
110 -2	37		↓
111 -3	37		
112 FT17-1	38		9x9 Tan floor tile
113 -2	38		↓
114 -3	38		
115 CT3-1	39		12"x12" White Divot Ceiling tile
116 -2	39		↓
117 -3	39		
118 CT4-1	40		12"x12" Smooth white ceiling tile
119 -2	40		↓
120 -3	40		
121 FT18-1	41		12"x12" Cream w/lime green & white specks floor tile
122 -2	41		
123 -3	41		
124 CTX1-1	42		Ceiling texture on drywall
125 -2	42		↓
126 -3	42		
127 CT4-1	43		12"x12" fissure & pinhole no glue ceiling tile
128 -2	43		white
129 -3	43		
130 CT5-1	44		12"x12" bubbled ceiling
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
131 CT6-2	44	NA	
132 -3	44		
133 M2-1	45		Black, carpet mastic
134 ↓ -2	45		↓
135 ↓ -3	45		
136 FT19-1	46		9x9 cream w/black
137 ↓ -2	46		& brown streaks
138 ↓ -3	46		Floor tile
139 TSI-1	47		Acrocell
140 ↓ -2	47		↓
141 ↓ -3	47		
142 TSEJ-1	48		Joints
143 ↓ -2	48		↓
144 ↓ -3	48		
145 CB4-1	49		8" Gray cove base
146 ↓ -2	49		↓
147 ↓ -3	49		
148 CTG-1	50		Gray ceramic tile grout
149 ↓ -2	50		↓
150 ↓ -3	50		
151 CTM-1	51		Ceramic tile mastic,
152 ↓ -2	51		Bathrooms-2nd FLR
153 ↓ -3	51		↓
154 FT20-1	52		9x9 beige w/brown
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
155 FT20-2	52	NA	streaked floor tile
156 -3	52		↓
157 CM3-1	53		Carpet Mastic (2nd Flr)
158 -2	53		↓
159 -3	53		
160 CM4-1	54		Wall Carpet Mastic
161 -2	54		↓
162 -3	54		
163 WM2-1	55		Wood Wall Mastic
164 -2	55		↓
165 -3	55		
166 CT6-1	56		12" x 12" Small Divot
167 -2	56		White ceiling tile
168 -3	56		↓
169 LFN2-1	57		Gray ^{m-s} Linoleum, yellow
170 -2	57		↓
171 -3	57		
172 LIN3-1	58		Gray Linoleum
173 -2	58		↓
174 -3	58		
175 SV1-1	59		Black sink undercoat
176 -2	59		↓
177 -3	59		
178 CTN2-1	60		Green Ceramic tile mastic

*Comments/Special Instructions:

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
179 CTM2-2	60	NA	
180 ↓ -3	60		
181 FT21-1	61		Gray floor tile under
182 ↓ -2	61		linoleum
183 ↓ -3	61		↓
184 CT7-1	62		Cream 2x4 pinhole &
185 ↓ -2	62		texture ceiling tile
186 ↓ -3	62		↓
187 FT22-1	63		12x12 Gray w/white &
188 ↓ -2	63		black specks
189 ↓ -3	63		↓
190 LIN4-1	64		Brown & tan pattern
191 ↓ -2	64		linoleum
192 ↓ -3	64		↓
193 FT23-1	65		12x12 Blue w/black &
194 ↓ 2	65		white specks floor
195 ↓ 3	65		tile
196 LIN5-1	66		Brown linoleum, entry
197 ↓ -2	66		way strips
198 ↓ -3	66		↓
199 FT24-1	67		12x12 Tan w/black,
200 ↓ 2	67		gray & white pattern,
201 ↓ -3	67		Grid bottom
202 CB5-1	68	↓	4" light blue cove base
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
203 CBS-2	68	NA	
204 -3	68		
205 FT26-1	69		9x9 Gray w/white & black streaks floor tile
206 ↓ -2	69		
207 ↓ -3	69		
208 FT27-1	70		12x12 thin tan floor tile
209 ↓ -2	70		
210 ↓ -3	70		
211 FT28-1	71		Grey, unknown size floor tile
212 ↓ -2	71		
213 ↓ -3	71		
214 TRAN-1	72		Transite panel
215 ↓ -2	72		
216 ↓ -3	72		
217 DWSG-1	73		Drywall w/joint Compound
218 ↓ -2	73		↓ Original Building
219 ↓ -3	73		
220 DWSG-1	74		Drywall w/joint Compound
221 ↓ -2	74		East side, 1st floor
222 ↓ -3	74		
223 ↓ -4	74		
224 ↓ -5	74		
225 PLSC-1	75		Plaster w/skim coat, 1st floor
226 -2	75		
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2 27	PLSC-3 75	NA	
2 28	1-4 75		
2 29	1-5 75		
2 30	1-6 75		
2 31	1-7 75		
2 32	SPSC-1 76		Spray on plaster ceiling
2 33	1-2 76		1st floor
2 34	1-3 76		↓
2 35	PLSC-1 77		Plaster w/skim coat,
2 36	1-2 77		2nd floor
2 37	1-3 77		↓
2 38	1-4 77		↓
2 39	1-5 77		↓
2 40	CB6-1 78		4" Pink Cove base
2 41	1-2 78		↓
2 42	1-3 78		↓
2 43	C-1 79		Brown window & door
2 44	1-2 79		caulk
2 45	1-3 79		↓
2 46	EC-1 80		Black Expansion caulk
2 47	1-2 80		↓
2 48	1-3 80		↓
2 49	EC-1 81		White Expansion caulk
2 50	-2 81	↓	↓
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
251	EC1-3	81	NA
252	EC2-1	82	Black Expansion
253	↓ -2	82	Caulk
254	↓ -3	82	↓
255	CI-1	83	Gray Door Caulk
256	↓ -2	83	↓
257	↓ -3	83	↓
258	STUCCO-1	84	Exterior wall stucco
259	↓ -2	84	↓
260	↓ -3	84	↓
261	SS-1	85	Siding Shingles
262	↓ -2	85	↓
263	↓ -3	85	↓
264	VP-1	86	Vapor Barrier
265	↓ -2	86	↓
266	↓ -3	86	↓
267	EC3-1	87	Tan Expansion Caulk
268	↓ -2	87	↓
269	↓ -3	87	↓
270	C2-1	88	Brown & white
271	↓ -2	88	Window caulk
272	↓ -3	88	↓
273	C3-1	89	Clear window caulk
274	↓ -2	89	↓
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
275	C3-3	89	NA
276	C4-1	90	Gray Door Caulk
277	↓-2	90	↓
278	↓-3	90	↓
279	G-1	91	Black window
280	↓-2	91	Glazing
281	↓-3	91	↓
282	C6-1	92	Light brown door
283	↓-2	92	caulk
284	↓-3	92	↓
285	ET3D-1	93	1/2x12 white floor
286	↓-2	93	lin, evidence building
287	↓-3	93	↓
288	G1-1	94	White Window Glazing
289	↓-2	94	↓
290	↓-3	94	↓
291	CB1-1	95	4" Brown Cove Base
292	↓-2	95	↓
293	↓-3	95	↓
294	RC-1	96	Roof Core
295	↓-2	96	↓
296	↓-3	96	↓
297	FL-1	97	Flashing
298	↓-2	97	↓
*Comments/Special Instructions: *Analyze ALL layers of roof cores individually ± <u>RC-1,2+3</u>			

10.

[REDACTED]

Page 14 of 14 pages



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 317283

Account Number: B229

Date Received: 11/25/2019

Received By: Christiana Younge

Date Analyzed: 12/09/2019

Analyzed By: Cassie Sanborn

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: Additional Testing for 316871

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	DWJC1-1	Composite	White Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
002	DWJC1-2	Composite	White Joint Compound / Sheetrock	Asbestos Present Chrysotile <1	Cellulose 15	CaCO3 Gypsum
003	FT5-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
004	FT5-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
005	FT5-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
006	FT13-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.50 400 Point Count	NA	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	317283	Client:	Tetra Tech EM, Inc.
Account Number:	B229		415 Oak Street
			Kansas City, MO 64106
Date Received:	11/25/2019		
Received By:	Christiana Younge		
Date Analyzed:	12/09/2019	Project:	103X903019F0101.005
Analyzed By:	Cassie Sanborn	Project Location:	Additional Testing for 316871
Methodology:	EPA/600/R-93/116	Project Number:	103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007	FT13-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
008	FT13-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
009	FT20-1	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
010	FT20-2	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
011	FT20-3	Homogeneous	Beige Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 317283

Account Number: B229

Date Received: 11/25/2019

Received By: Christiana Younge

Date Analyzed: 12/09/2019

Analyzed By: Cassie Sanborn

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: Additional Testing for 316871

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
012	FT22-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.50 400 Point Count	NA	
013	FT22-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
014	FT22-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
015	FT23-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
016	FT23-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
017	FT23-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.25 400 Point Count	NA	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 317283	Client: Tetra Tech EM, Inc.
Account Number: B229	415 Oak Street
	Kansas City, MO 64106
Date Received: 11/25/2019	
Received By: Christiana Younge	
Date Analyzed: 12/09/2019	Project: 103X903019F0101.005
Analyzed By: Cassie Sanborn	Project Location: Additional Testing for 316871
Methodology: EPA/600/R-93/116	Project Number: 103X903019F0101.005

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
018	LIN5-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
019	LIN5-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
020	LIN5-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
021	FT26-1	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.50 400 Point Count	NA	
022	FT26-2	Homogeneous	Brown Mastic	Asbestos Present Chrysotile 0.75 400 Point Count	NA	

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 317283

Account Number: B229

Date Received: 11/25/2019

Received By: Christiana Younge

Date Analyzed: 12/09/2019

Analyzed By: Cassie Sanborn

Methodology: EPA/600/R-93/116

Client: Tetra Tech EM, Inc.

415 Oak Street

Kansas City, MO 64106

Project: 103X903019F0101.005

Project Location: Additional Testing for 316871

Project Number: 103X903019F0101.005

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
023	FT26-3	Homogeneous	Brown Mastic	Asbestos Present Chrysotile <0.25 400 Point Count	NA	
024	FT27-1	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.75 400 Point Count	NA	
025	FT27-2	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile 0.25 400 Point Count	NA	
026	FT27-3	Homogeneous	Tan Floor Tile	Asbestos Present Chrysotile <0.25 400 Point Count	NA	

Cassie Sanborn

Cassie Sanborn, Analyst

12/9/2019

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

316871

Asbestos Bulk Building Material Chain of Custody

Company: Tetra Tech		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 415 oak street		Third Party Billing requires written authorization from third party	
City: Kansas City	State/Province: MO	Zip/Postal Code: 64106	Country: US
Report To (Name): Michelle Handley		Telephone #: 3143796336	
Email Address: michelle.Handley@tetratech.com		Fax #:	Purchase Order:
Project Name/Number: 101X103018F0101.005		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: MO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour
<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1 (friable in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method	<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <div style="text-align: center;">Other</div> <input type="checkbox"/>

<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group	Date Sampled: 11/8/2019
--	-------------------------

Samplers Name: Megan Sawyer	Samplers Signature: <i>Megan Sawyer</i>
-----------------------------	---

Sample #	HA #	Sample Location	Material Description
1 FT-1	1	NA	12x12 Gray Stick on
2 1-2	1	↓	floor tile
3 1-3	1	↓	↓
4 FT1-1	2	NA	12x12 white w/black
5 1-2	2	↓	streaks floor tile
6 1-3	2	↓	↓
7 FT2-1	3	↓	12x12 Pink w/black
8 1-2	3	↓	dots floor tile
9 1-3	3	↓	↓
10 Terrazzo-1	4	↓	Terrazzo, Tan

Client Sample # (s): 1 → H#100	Total # of Samples: 3/0
Relinquished (Client): <i>Megan Sawyer (TE)</i>	Date: 11/11/2019 Time: 1400
Received (Lab):	Date: 11/13/19 Time: 8:30AM
Comments/Special Instructions: <i>Elena J. Sawyer</i>	

316871

**Asbestos Bulk Building Material
Chain of Custody**

[REDACTED]

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
11 Terrazzo-2	4	NA	
12 ↓ -3	4		
13 CB-1	5		4" Black Cove Base
14 ↓ -2	5		↓
15 ↓ -3	5		
16 CT-1	6		2x4 White Lissure & Pinhole
17 ↓ -2	6		↓
18 ↓ -3	6		
19 WM-1	7		Wall Panel Mastic, Wood Walls
20 ↓ -2	7		↓
21 ↓ -3	7		
22 CM-1	8		Yellow Carpet Mastic
23 ↓ -2	8		↓
24 ↓ -3	8		
25 FT4-1	9		12x12 Beige w/Pink Streaks Floor tile
26 ↓ -2	9		↓
27 ↓ -3	9		
28 FT5-1	10		12x12 thin brown w/tan streaks floor tile
29 ↓ -2	10		
30 ↓ -3	10		
31 FT6-1	11		9x9 gray w/red & brown streaks floor tile
32 ↓ -2	11		
33 ↓ -3	11		
34 FT7-1	12		9x9 gray w/white &
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

	Sample #	HA #	Sample Location	Material Description
35	FT7-2	12	NA	black dots floor tile
36	↓-3	12		
37	CT1-1	13		12"x12" fissure & pinhole
38	↓-2	13		ceiling tile, white, w/
39	↓-3	13		glue pucks
40	CT2-1	14		12x4 gypsum white
41	↓-2	14		ceiling tile
42	↓-3	14		↓
43	CTM-1	15		Ceramic tile mastic,
44	↓-2	15		green wall tile
45	↓-3	15		↓
46	FT8-1	16		9x9 Red floor tile
47	↓-2	16		↓
48	↓-3	16		
49	FT9-1	17		9x9 Black floor tile
50	↓-2	17		↓
51	↓-3	17		
52	FT10-1	18		12x12 Hot Pink floor
53	↓-2	18		tile
54	↓-3	18		↓
55	FT11-1	19		12x12 Turquoise floor
56	↓-2	19		tile
57	↓-3	19		↓
58	FT12-1	20	↓	12x12 gray white &
*Comments/Special Instructions:				

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
59	FT12-2	20	MA
60	-3	20	Green cobblestone floor tile
61	FT13-1	21	12x12 tan w/brown streaks floor tile
62	↓ -2	21	↓
63	↓ -3	21	↓
64	MS FT14-1	22	12x12 beige w/tan cobblestone floor tile
65	↓ -2	22	↓
66	↓ -3	22	↓
67	SD-1	23	White Sink Undercoat
68	↓ -2	23	↓
69	↓ -3	23	↓
70	CTH-1	24	White Ceramic tile grout
71	↓ -2	24	↓
72	↓ -3	24	↓
73	LIN-1	25	Brown linoleum
74	↓ -2	25	↓
75	↓ -3	25	↓
76	FT15-1	26	9x9 Brown w/black streaks floor tile
77	↓ -2	26	↓
78	↓ -3	26	↓
79	CTX-1	27	White ceiling Texture
80	↓ -2	27	↓
81	↓ -3	27	↓
82	FP-1	28	Brown Fireproofing
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
83-82	FP-2	28	NA
84 3	-3	28	
85 4	CTG1-1	29	Tan Ceramic tile
86 5	↓ -2	29	grout
87 6	↓ -3	29	
88 7	CB1-1	30	4" Tan Cove Base
89 8	↓ -2	30	↓
90 9	↓ -3	30	
91 0	CT2-1	31	12"x12" white pinhole ceiling tile
92 1	↓ -2	31	↓
93 2	↓ -3	31	
94 3	WM1-1	32	White Plastic wall paneling mastic
95 4	↓ -2	32	↓
96 5	↓ -3	32	
97 6	CB2-1	33	4" Brown Cove Base
98 7	↓ -2	33	↓
99 8	↓ -3	33	
100 9	LT1N1-1	34	Tan Linoleum
101 0	↓ -2	34	↓
102 1	↓ -3	34	
103 2	FT16-1	35	9x9 maroon floor tile
104 3	↓ -2	35	↓
105 4	↓ -3	35	
106 5	CM1-1	36	Wall Carpet Mastic
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody
EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
107	CM1-2	36	NA
108	-3	36	
109	CB3-1	37	4" Gray Cove Base
110	↓ -2	37	↓
111	↓ -3	38	9x9 Tan Floor tile
112	FT1-1	38	↓
113	↓ -2	38	
114	↓ -3	38	
115	CT3-1	39	12"x12" White Divot Ceiling tile
116	↓ -2	39	↓
117	↓ -3	39	
118	CT4-1	40	12"x12" Smooth white ceiling tile
119	↓ -2	40	↓
120	↓ -3	40	
121	ET18-1	41	12"x12" Cream w/ lime green & white specks Floor tile
122	↓ -2	41	
123	↓ -3	41	
124	CTX1-1	42	Ceiling texture on drywall
125	↓ -2	42	↓
126	↓ -3	42	
127	CT4-1	43	12"x12" fissure & pinhole no glue ceiling tile
128	↓ -2	43	white
129	↓ -3	43	
130	CT5-1	44	12"x12" bubbled ceiling
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material
Chain of Custody
EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
131	CTB-2	44	NA
132	-3	44	
133	M2-1	45	Black, carpet mastic
134	↓ -2	45	↓
135	↓ -3	45	
136	FT9-1	46	9x9 cream w/black
137	↓ -2	46	& brown streaks
138	↓ -3	46	Floor tile
139	TSE-1	47	Hiocell
140	↓ -2	47	↓
141	↓ -3	47	
142	TSEJ-1	48	Joints
143	↓ -2	48	↓
144	↓ -3	48	
145	CB4-1	49	8" Gray cove base
146	↓ -2	49	↓
147	↓ -3	49	
148	CTA-1	50	Gray ceramic tile grout
149	↓ -2	50	↓
150	↓ -3	50	
151	CTM-1	51	Ceramic tile mastic,
152	↓ -2	51	Bathrooms-2nd FLR
153	↓ -3	51	↓
154	FT20-1	52	9x9 beige w/brown
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material
Chain of Custody
 EMSL Order Number (Lab Use Only):

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
155	FT20-2	52	NA
156	-3	52	↓
157	CM3-1	53	Carpet Mastic (2nd Flr)
158	↓ -2	53	↓
159	↓ -3	53	↓
160	CM4-1	54	Wall Carpet Mastic
161	↓ -2	54	↓
162	↓ -3	54	↓
163	WM2-1	55	Wood Wall Mastic
164	↓ -2	55	↓
165	↓ -3	55	↓
166	CT6-1	56	12" x 12" Small Divot
167	↓ -2	56	White ceiling tile
168	↓ -3	56	↓
169	LEN2-1	57	Gray ^{m-s} Linoleum, yellow
170	↓ -2	57	↓
171	↓ -3	57	↓
172	LEN3-1	58	Gray Linoleum
173	↓ -2	58	↓
174	↓ -3	58	↓
175	SV1-1	59	Black sink undercoat
176	↓ -2	59	↓
177	↓ -3	59	↓
178	CTM2-1	60	Green Ceramic tile mastic
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
179	CTM2-7	60	NA
180	↓ -3	60	
181	FT21-1	61	Gray floor tile under
182	↓ -2	61	linoleum
183	↓ -3	61	↓
184	CTF-1	62	Cream 2x4 pinhole &
185	↓ -2	62	texture ceiling tile
186	↓ -3	62	↓
187	FT22-1	63	12x12 Gray w/white &
188	↓ -2	63	black specks
189	↓ -3	63	↓
190	LIN4-1	64	Brown & tan patterned
191	↓ -2	64	linoleum
192	↓ -3	64	↓
193	FT23-1	65	12x12 Blue w/black &
194	↓ -2	65	white speckled floor
195	↓ -3	65	tile
196	LIN5-1	66	Brown linoleum, entry
197	↓ -2	66	way strips
198	↓ -3	66	↓
199	FT24-1	67	12x12 Tan w/black,
200	↓ -2	67	gray & white pattern,
201	↓ -3	67	Grid bottom
202	CB5-1	68	4" light blue cove base
*Comments/Special Instructions:			

316871

Asbestos Bulk Building Material Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

	Sample #	HA #	Sample Location	Material Description
203	CBS-2	68	NA	
204	-3	68		
205	FT26-1	69		9x9 Gray w/white & black streaks floor tile
206	↓ -2	69		
207	↓ -3	69		
208	FT27-1	70		12x12 thin tan floor tile
209	↓ -2	70		
210	↓ -3	70		
211	FT28-1	71		Grey, unknown size floor tile
212	↓ -2	71		
213	↓ -3	71		
214	TRAN-1	72		Transite panel
215	↓ -2	72		
216	↓ -3	72		
217	DWSC-1	73		Drywall w/joint Compound
218	↓ -2	73		↓ Original Building
219	↓ -3	73		
220	DWSC-1	74		Drywall w/joint Compound
221	↓ -2	74		East side, 1st floor
222	↓ -3	74		
223	↓ -4	74		
224	↓ -5	74		
225	PLSC-1	75		Plaster w/skim coat, 1st floor
226	-2	75		
*Comments/Special Instructions:				

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
2 27	PLSC-3 75	NA	
2 28	1-4 75		
2 29	1-5 75		
2 30	1-6 75		
2 31	1-7 75		
2 32	SPLSC-1 76		Spray on plaster ceiling 1st floor
2 33	1-2 76		↓
2 34	1-3 76		Plaster w/skim coat, 2nd floor
2 35	PLSC-1 77		↓
2 36	1-2 77		
2 37	1-3 77		
2 38	1-4 77		
2 39	1-5 77		
2 40	CBLO-1 78		4" Pink Cove base
2 41	1-2 78		↓
2 42	1-3 78		
2 43	C-1 79		Brown window & door caulk
2 44	1-2 79		↓
2 45	1-3 79		Black Expansion caulk
2 46	EL-1 80		↓
2 47	1-2 80		
2 48	1-3 80		
2 49	EL-1 81		White Expansion caulk
2 50	1-2 81	↓	↓
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
251	EC1-3	81	NA
252	EC2-1	82	Black Expansion
253	↓ -2	82	Caulk
254	↓ -3	82	↓
255	CI-1	83	Gray Door Caulk
256	↓ -2	83	↓
257	↓ -3	83	↓
258	STUCCO-1	84	Exterior wall Stucco
259	↓ -2	84	↓
260	↓ -3	84	↓
261	SS-1	85	Siding Shingles
262	↓ -2	85	↓
263	↓ -3	85	↓
264	VP-1	86	Vapor Barrier
265	↓ -2	86	↓
266	↓ -3	86	↓
267	EC3-1	87	Tan Expansion Caulk
268	↓ -2	87	↓
269	↓ -3	87	↓
270	C2-1	88	Brown & white
271	↓ -2	88	window caulk
272	↓ -3	88	↓
273	C3-1	89	Clear window caulk
274	↓ -2	89	↓
*Comments/Special Instructions:			

316871
Asbestos Bulk Building Material
Chain of Custody

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
275	C3-3	89	NA
276	C4-1	90	Gray Door Caulk
277	↓-2	90	↓
278	↓-3	90	
279	G-1	91	Black window
280	↓-2	91	Glazing
281	↓-3	91	↓
282	C6-1	92	Light brown door
283	↓-2	92	caulk
284	↓-3	92	↓
285	FT30-1	93	1/2 x 1/2 white floor
286	↓-2	93	lin, evidence building
287	↓-3	93	↓
288	G1-1	94	White Window Glazing
289	↓-2	94	↓
290	↓-3	94	
291	CB1-1	95	4" Brown Cove Base
292	↓-2	95	↓
293	↓-3	95	
294	RC-1	96	Roof Core
295	↓-2	96	↓
296	↓-3	96	
297	FL-1	97	Flashing
298	↓-2	97	↓
*Comments/Special Instructions: *Analyze ALL layers of roof cores individually ± <u>RC-1, 2, 3</u>			

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Page 14 of 14 pages

APPENDIX E

PCB ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS



21-Nov-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **Oak Street City Hall (103X903019F0101.005)**

Work Order: **19110911**

Dear Emily,

ALS Environmental received 2 samples on 12-Nov-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink that reads "Ehrland Bosworth".

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Work Order: 19110911

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19110911-01	PCB-1-Black	Solid		11/8/2019 12:00	11/12/2019 11:00	<input type="checkbox"/>
19110911-02	PCB-2-Gray	Solid		11/8/2019 13:00	11/12/2019 11:00	<input type="checkbox"/>

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
WorkOrder: 19110911

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/Kg	Micrograms per Kilogram

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Work Order: 19110911

Case Narrative

Samples for the above noted Work Order were received on 11/12/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Extractable Organics:

No deviations or anomalies were noted.

ALS Group, USA**Date:** 21-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Sample ID: PCB-1-Black
Collection Date: 11/8/2019 12:00 PM

Work Order: 19110911
Lab ID: 19110911-01
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
PCBS			Method: SW8082		Prep: SW3550 / 11/14/19		Analyst: KB
Aroclor 1016	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1221	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1232	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1242	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1248	U		290	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1254	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1260	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1262	U		200	740	µg/Kg	1	11/19/2019 21:05
Aroclor 1268	U		200	740	µg/Kg	1	11/19/2019 21:05
Surr: Decachlorobiphenyl	101			40-140	%REC	1	11/19/2019 21:05
Surr: Tetrachloro-m-xylene	85.1			45-124	%REC	1	11/19/2019 21:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 21-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall (103X903019F0101.005)
Sample ID: PCB-2-Gray
Collection Date: 11/8/2019 01:00 PM

Work Order: 19110911
Lab ID: 19110911-02
Matrix: SOLID

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
PCBS			Method: SW8082		Prep: SW3550 / 11/14/19		Analyst: KB
Aroclor 1016	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1221	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1232	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1242	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1248	U		330	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1254	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1260	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1262	U		230	840	µg/Kg	1	11/19/2019 21:21
Aroclor 1268	U		230	840	µg/Kg	1	11/19/2019 21:21
Surr: Decachlorobiphenyl	107			40-140	%REC	1	11/19/2019 21:21
Surr: Tetrachloro-m-xylene	86.1			45-124	%REC	1	11/19/2019 21:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech

Work Order: 19110911

Project: Oak Street City Hall (103X903019F0101.005)

QC BATCH REPORT

Batch ID: 145605

Instrument ID GC14

Method: SW8082

MBLK		Sample ID: PBLKS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 03:57 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058092		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	33	83								
Aroclor 1221	U	33	83								
Aroclor 1232	U	33	83								
Aroclor 1242	U	33	83								
Aroclor 1248	U	33	83								
Aroclor 1254	U	23	83								
Aroclor 1260	U	23	83								
Aroclor 1262	U	23	83								
Aroclor 1268	U	23	83								
Surr: Decachlorobiphenyl	33.67	0	0	33.3	0	101	40-140	0			
Surr: Tetrachloro-m-xylene	25.67	0	0	33.3	0	77.1	45-124	0			

LCS		Sample ID: PLCSS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 04:13 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058093		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	859.3	33	83	833	0	103	50-130	0			
Aroclor 1260	927	23	83	833	0	111	50-130	0			
Surr: Decachlorobiphenyl	35	0	0	33.3	0	105	40-140	0			
Surr: Tetrachloro-m-xylene	28.33	0	0	33.3	0	85.1	45-124	0			

LCSD		Sample ID: PLCSDS1-145605-145605				Units: µg/Kg		Analysis Date: 11/15/2019 04:28 A			
Client ID:		Run ID: GC14_191114A				SeqNo: 6058094		Prep Date: 11/14/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	869	33	83	833	0	104	50-130	859.3	1.12	0	
Aroclor 1260	914.3	23	83	833	0	110	50-130	927	1.38	0	
Surr: Decachlorobiphenyl	37	0	0	33.3	0	111	40-140	35	5.56	0	
Surr: Tetrachloro-m-xylene	30.33	0	0	33.3	0	91.1	45-124	28.33	6.82		

The following samples were analyzed in this batch:

19110911-01A	19110911-02A
--------------	--------------

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Cincinnati, OH
+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 194175

Houston, TX
+1 281 530 5656

Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903

Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Customer Information			Project Information				ALS Project Manager: <u>EB</u> ALS Work Order #: <u>19110911</u>													
Parameter/Method Request for Analysis																				
Purchase Order		Project Name	<u>Oak Street City Hall</u>				A	<u>PCB-EPA SW-846 Method 8082</u>												
Work Order		Project Number	<u>103X903069F0101.005</u>				B													
Company Name	<u>Tetra Tech</u>	Bill To Company	<u>Tetra Tech</u>				C													
Send Report To	<u>Michelle Handley</u>	Invoice Attn	<u>Accounts Payable</u>				D													
Address	<u>415 Oak Street</u>	Address	<u>415 Oak Street</u>				E													
							F													
City/State/Zip	<u>Kansas City, MO 64106</u>	City/State/Zip	<u>Kansas City, MO 64106</u>				G													
Phone	<u>(816) 412-1755</u>	Phone	<u>(816) 412-1755</u>				H													
Fax	<u>(816) 410-1748</u>	Fax	<u>(816) 410-1748</u>				I													
e-Mail Address	<u>michelle.handley@tetra</u>	e-Mail Address					J													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	<u>PCB-1 - Black</u>	<u>11/8/19</u>	<u>1200</u>	<u>Solid</u>	<u>-</u>	<u>1</u>	<u>X</u>													
2	<u>PCB-2 - Gray</u>	<u>11/8/19</u>	<u>1300</u>	<u>Solid</u>	<u>-</u>	<u>1</u>	<u>X</u>													
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
Sampler(s) Please Print & Sign <u>Megan Sawyer</u>			Shipment Method <u>Fedex</u>		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour				Results Due Date:											
Relinquished by: <u>Megan Sawyer</u>		Date: <u>11/11/19</u>	Time: <u>1500</u>	Received by:		Notes:														
Relinquished by:		Date: <u>11/12/19</u>	Time: <u>11:00</u>	Received by (Laboratory):		Cooler ID		Cooler Temp. <u>2.9°C</u>		QC Package: (Check One Box Below)										
Logged by (Laboratory): <u>MT6</u>		Date: <u>11/12/19</u>	Time: <u>15:21</u>	Checked by (Laboratory): <u>EB</u>						<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other										
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																				

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

Sample Receipt Checklist

Client Name: **TETRATECH - MO**

Date/Time Received: **12-Nov-19 00:00**

Work Order: **19110911**

Received by: **MJG**

Checklist completed by Matthew Gaylord
eSignature

12-Nov-19
Date

Reviewed by: Ehland Bramworth
eSignature

12-Nov-19
Date

Matrices: **Solid**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.9/2.9C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/12/2019 3:24:05 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

APPENDIX E

ANALYTICAL REPORT AND DATA VALIDATION



01-Nov-2019

Emily Fisher
Tetra Tech
415 Oak Street
Kansas City, MO 64106

Re: **Oak Street City Hall Site**

Work Order: **19101554**

Dear Emily,

ALS Environmental received 26 samples on 18-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 200.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink that reads "Ehrland Bosworth".

Electronically approved by: Ehrland Bosworth

Ehrland Bosworth
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Tetra Tech
Project: Oak Street City Hall Site
Work Order: 19101554

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
19101554-01	SB01-01-03	Soil		10/16/2019 14:51	10/18/2019 09:30	<input type="checkbox"/>
19101554-02	SB01-21-23	Soil		10/16/2019 15:07	10/18/2019 09:30	<input type="checkbox"/>
19101554-03	SB02-01-03	Soil		10/16/2019 15:38	10/18/2019 09:30	<input type="checkbox"/>
19101554-04	SB02-27-29	Soil		10/16/2019 16:13	10/18/2019 09:30	<input type="checkbox"/>
19101554-05	SB03-01-03	Soil		10/16/2019 16:53	10/18/2019 09:30	<input type="checkbox"/>
19101554-06	SB03-18-20	Soil		10/16/2019 17:04	10/18/2019 09:30	<input type="checkbox"/>
19101554-07	SB04-01-03	Soil		10/17/2019 08:22	10/18/2019 09:30	<input type="checkbox"/>
19101554-08	SB04-23-25	Soil		10/17/2019 09:00	10/18/2019 09:30	<input type="checkbox"/>
19101554-09	SB04-01-03D	Soil		10/17/2019 09:10	10/18/2019 09:30	<input type="checkbox"/>
19101554-10	SB05-01-03	Soil		10/17/2019 09:19	10/18/2019 09:30	<input type="checkbox"/>
19101554-11	SB05-13-15	Soil		10/17/2019 10:05	10/18/2019 09:30	<input type="checkbox"/>
19101554-12	SB05-01-03D	Soil		10/17/2019 10:10	10/18/2019 09:30	<input type="checkbox"/>
19101554-13	SB06-01-03	Soil		10/17/2019 10:54	10/18/2019 09:30	<input type="checkbox"/>
19101554-14	SB06-11-13	Soil		10/17/2019 11:03	10/18/2019 09:30	<input type="checkbox"/>
19101554-15	SB07-01-03	Soil		10/17/2019 11:27	10/18/2019 09:30	<input type="checkbox"/>
19101554-16	Field Blank	Water		10/17/2019 12:10	10/18/2019 09:30	<input type="checkbox"/>
19101554-17	SB07-37-39	Soil		10/17/2019 12:34	10/18/2019 09:30	<input type="checkbox"/>
19101554-18	SB04-GW	Water		10/17/2019 12:52	10/18/2019 09:30	<input type="checkbox"/>
19101554-19	SB04-GWD	Water		10/17/2019 13:00	10/18/2019 09:30	<input type="checkbox"/>
19101554-20	ER	Water		10/17/2019 13:30	10/18/2019 09:30	<input type="checkbox"/>
19101554-21	SB08-01-03	Soil		10/17/2019 14:20	10/18/2019 09:30	<input type="checkbox"/>
19101554-22	SB08-11-13	Soil		10/17/2019 14:38	10/18/2019 09:30	<input type="checkbox"/>
19101554-23	TB-Soil 1	Soil		10/16/2019	10/18/2019 09:30	<input type="checkbox"/>
19101554-24	TB-Soil 2	Soil		10/17/2019	10/18/2019 09:30	<input type="checkbox"/>
19101554-25	TB-Water 1	Water		10/16/2019	10/18/2019 09:30	<input type="checkbox"/>
19101554-26	TB-water 2	Water		10/17/2019	10/18/2019 09:30	<input type="checkbox"/>

Client: Tetra Tech
Project: Oak Street City Hall Site
WorkOrder: 19101554

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
µg/L	Micrograms per Liter
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter

Client: Tetra Tech
Project: Oak Street City Hall Site
Work Order: 19101554

Case Narrative

Samples for the above noted Work Order were received on 10/18/19. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch 144351, Method GRO_8260_S, Sample 19101554-11A MS and -11A MSD: The GRO MS and/or MSD recoveries were above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for GRO.

Batch R273846a, Method VOC_8260_W, Sample VLCSW1-191025: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-02A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-04A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-06A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-07A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-08A: One or more VOC surrogate recoveries were low due to preservative interference.

Client: Tetra Tech
Project: Oak Street City Hall Site
Work Order: 19101554

Case Narrative

Batch R273901, Method VOC_8260_SLL, Sample 19101554-09A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-10A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-11A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-12A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-13A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-14A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-15A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-17A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-21A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-22A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-23A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample 19101554-24A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273901, Method VOC_8260_SLL, Sample VLCSS2-191027: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

Batch R273917, Method VOC_8260_SLL, Sample 19101554-01A: One or more VOC surrogate recoveries were low due to preservative interference.

Client: Tetra Tech
Project: Oak Street City Hall Site
Work Order: 19101554

Case Narrative

Batch R273917, Method VOC_8260_SLL, Sample 19101554-03A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R273917, Method VOC_8260_SLL, Sample VLCSS2-191027: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

Batch R274019a, Method VOC_8260_W, Sample 19101554-20A MS: The VOC MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for Dichlorodifluoromethane.

Batch R274019a, Method VOC_8260_W, Sample VBLKW2-191028: The VOC concentration in the Method Blank was greater than the quantitation limit. All samples in the batch were non-detect; therefore, no qualification is needed for Chloromethane.

Batch R274062, Method VOC_8260_SLL, Sample 19101554-05A: One or more VOC surrogate recoveries were low due to preservative interference.

Batch R274062, Method VOC_8260_SLL, Sample VLCSS1-191029: The VOC LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for Dichlorodifluoromethane.

No other deviations or anomalies were noted.

Extractable Organics:

Batch 144294, Method SVO_8270_WLL, Sample SLCSW1-144294: The SVOC LCS recovery was above the upper control limit. The sample results for this batch may be biased high for 2,4-Dimethylphenol.

Batch 144295, Method SVO_8270_S, Sample 19101554-07B: One or more SVOC surrogate recoveries were above the upper control limits. The SVOC sample results may be biased high.

Batch 144295, Method SVO_8270_S, Sample SLCSS1-144295: The SVOC LCS recovery was below the lower control limit. The sample results for this batch may be biased low for 2,4-Dinitrophenol.

No other deviations or anomalies were noted.

Client: Tetra Tech
Project: Oak Street City Hall Site
Work Order: 19101554

Case Narrative

Metals:
No deviations or anomalies were noted.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-01-03
Collection Date: 10/16/2019 02:51 PM

Work Order: 19101554
Lab ID: 19101554-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/21/19		Analyst: KB
Aroclor 1016	U		27	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1221	U		27	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1232	U		27	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1242	U		27	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1248	U		27	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1254	U		22	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1260	U		22	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1262	U		22	79	µg/Kg-dry	1	10/22/2019 18:11
Aroclor 1268	U		22	79	µg/Kg-dry	1	10/22/2019 18:11
Surr: Decachlorobiphenyl	62.1			40-140	%REC	1	10/22/2019 18:11
Surr: Tetrachloro-m-xylene	64.3			45-124	%REC	1	10/22/2019 18:11
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	9.2		0.059	0.49	mg/Kg-dry	1	10/30/2019 00:06
Barium	150		0.45	0.49	mg/Kg-dry	1	10/30/2019 00:06
Cadmium	0.44		0.030	0.20	mg/Kg-dry	1	10/30/2019 00:06
Chromium	33		2.2	4.9	mg/Kg-dry	10	10/30/2019 18:23
Lead	140		0.24	0.49	mg/Kg-dry	1	10/30/2019 00:06
Selenium	U		0.45	0.49	mg/Kg-dry	1	10/30/2019 00:06
Silver	0.13	J	0.065	0.49	mg/Kg-dry	1	10/30/2019 00:06
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.7	mg/Kg-dry	1	10/26/2019 10:15
ORO (C21-C35)	U		1.9	5.7	mg/Kg-dry	1	10/26/2019 10:15
Surr: 4-Terphenyl-d14	56.4			25-137	%REC	1	10/26/2019 10:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		31	190	µg/Kg-dry	5	10/25/2019 06:51
1,2,4,5-Tetrachlorobenzene	U		150	1,900	µg/Kg-dry	5	10/25/2019 06:51
1,4-Dioxane	U		140	960	µg/Kg-dry	5	10/25/2019 06:51
2,2'-Oxybis(1-chloropropane)	U		45	190	µg/Kg-dry	5	10/25/2019 06:51
2,3,4,6-Tetrachlorophenol	U		50	390	µg/Kg-dry	5	10/25/2019 06:51
2,4,5-Trichlorophenol	U		53	190	µg/Kg-dry	5	10/25/2019 06:51
2,4,6-Trichlorophenol	U		51	190	µg/Kg-dry	5	10/25/2019 06:51
2,4-Dichlorophenol	U		41	190	µg/Kg-dry	5	10/25/2019 06:51
2,4-Dimethylphenol	U		39	190	µg/Kg-dry	5	10/25/2019 06:51
2,4-Dinitrophenol	U		100	190	µg/Kg-dry	5	10/25/2019 06:51
2,4-Dinitrotoluene	U		50	190	µg/Kg-dry	5	10/25/2019 06:51
2,6-Dinitrotoluene	U		32	190	µg/Kg-dry	5	10/25/2019 06:51
2-Chloronaphthalene	U		27	38	µg/Kg-dry	5	10/25/2019 06:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-01-03
Collection Date: 10/16/2019 02:51 PM

Work Order: 19101554
Lab ID: 19101554-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		61	190	µg/Kg-dry	5	10/25/2019 06:51
2-Methylnaphthalene	U		20	38	µg/Kg-dry	5	10/25/2019 06:51
2-Methylphenol	U		52	190	µg/Kg-dry	5	10/25/2019 06:51
2-Nitroaniline	U		44	190	µg/Kg-dry	5	10/25/2019 06:51
2-Nitrophenol	U		55	190	µg/Kg-dry	5	10/25/2019 06:51
3&4-Methylphenol	U		39	190	µg/Kg-dry	5	10/25/2019 06:51
3,3'-Dichlorobenzidine	U		29	960	µg/Kg-dry	5	10/25/2019 06:51
3-Nitroaniline	U		44	190	µg/Kg-dry	5	10/25/2019 06:51
4,6-Dinitro-2-methylphenol	U		48	190	µg/Kg-dry	5	10/25/2019 06:51
4-Bromophenyl phenyl ether	U		52	190	µg/Kg-dry	5	10/25/2019 06:51
4-Chloro-3-methylphenol	U		55	190	µg/Kg-dry	5	10/25/2019 06:51
4-Chloroaniline	U		30	390	µg/Kg-dry	5	10/25/2019 06:51
4-Chlorophenyl phenyl ether	U		53	190	µg/Kg-dry	5	10/25/2019 06:51
4-Nitroaniline	U		300	960	µg/Kg-dry	5	10/25/2019 06:51
4-Nitrophenol	U		170	190	µg/Kg-dry	5	10/25/2019 06:51
Acenaphthene	U		28	38	µg/Kg-dry	5	10/25/2019 06:51
Acenaphthylene	U		33	38	µg/Kg-dry	5	10/25/2019 06:51
Acetophenone	U		30	190	µg/Kg-dry	5	10/25/2019 06:51
Anthracene	U		27	38	µg/Kg-dry	5	10/25/2019 06:51
Atrazine	U		30	190	µg/Kg-dry	5	10/25/2019 06:51
Benzaldehyde	U		300	390	µg/Kg-dry	5	10/25/2019 06:51
Benzo(a)anthracene	110		33	38	µg/Kg-dry	5	10/25/2019 06:51
Benzo(a)pyrene	100		24	38	µg/Kg-dry	5	10/25/2019 06:51
Benzo(b)fluoranthene	110		29	38	µg/Kg-dry	5	10/25/2019 06:51
Benzo(g,h,i)perylene	73		29	38	µg/Kg-dry	5	10/25/2019 06:51
Benzo(k)fluoranthene	88		29	38	µg/Kg-dry	5	10/25/2019 06:51
Bis(2-chloroethoxy)methane	U		18	190	µg/Kg-dry	5	10/25/2019 06:51
Bis(2-chloroethyl)ether	U		54	190	µg/Kg-dry	5	10/25/2019 06:51
Bis(2-ethylhexyl)phthalate	U		33	190	µg/Kg-dry	5	10/25/2019 06:51
Butyl benzyl phthalate	U		33	190	µg/Kg-dry	5	10/25/2019 06:51
Caprolactam	U		66	190	µg/Kg-dry	5	10/25/2019 06:51
Carbazole	U		21	190	µg/Kg-dry	5	10/25/2019 06:51
Chrysene	110		31	38	µg/Kg-dry	5	10/25/2019 06:51
Dibenzo(a,h)anthracene	U		21	38	µg/Kg-dry	5	10/25/2019 06:51
Dibenzofuran	U		28	190	µg/Kg-dry	5	10/25/2019 06:51
Diethyl phthalate	U		29	190	µg/Kg-dry	5	10/25/2019 06:51
Dimethyl phthalate	U		38	190	µg/Kg-dry	5	10/25/2019 06:51
Di-n-butyl phthalate	U		35	190	µg/Kg-dry	5	10/25/2019 06:51
Di-n-octyl phthalate	U		37	190	µg/Kg-dry	5	10/25/2019 06:51
Fluoranthene	170		18	38	µg/Kg-dry	5	10/25/2019 06:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-01-03
Collection Date: 10/16/2019 02:51 PM

Work Order: 19101554
Lab ID: 19101554-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		28	38	µg/Kg-dry	5	10/25/2019 06:51
Hexachlorobenzene	U		56	190	µg/Kg-dry	5	10/25/2019 06:51
Hexachlorobutadiene	U		100	190	µg/Kg-dry	5	10/25/2019 06:51
Hexachlorocyclopentadiene	U		66	190	µg/Kg-dry	5	10/25/2019 06:51
Hexachloroethane	U		80	190	µg/Kg-dry	5	10/25/2019 06:51
Indeno(1,2,3-cd)pyrene	69		27	38	µg/Kg-dry	5	10/25/2019 06:51
Isophorone	U		38	960	µg/Kg-dry	5	10/25/2019 06:51
Naphthalene	U		25	38	µg/Kg-dry	5	10/25/2019 06:51
Nitrobenzene	U		65	960	µg/Kg-dry	5	10/25/2019 06:51
N-Nitrosodi-n-propylamine	U		32	190	µg/Kg-dry	5	10/25/2019 06:51
N-Nitrosodiphenylamine	U		18	190	µg/Kg-dry	5	10/25/2019 06:51
Pentachlorophenol	U		71	190	µg/Kg-dry	5	10/25/2019 06:51
Phenanthrene	100		18	38	µg/Kg-dry	5	10/25/2019 06:51
Phenol	U		48	190	µg/Kg-dry	5	10/25/2019 06:51
Pyrene	170		7.0	38	µg/Kg-dry	5	10/25/2019 06:51
Surr: 2,4,6-Tribromophenol	68.7			38-92	%REC	5	10/25/2019 06:51
Surr: 2-Fluorobiphenyl	78.7			44-107	%REC	5	10/25/2019 06:51
Surr: 2-Fluorophenol	70.4			37-109	%REC	5	10/25/2019 06:51
Surr: 4-Terphenyl-d14	73.6			52-123	%REC	5	10/25/2019 06:51
Surr: Nitrobenzene-d5	76.9			41-94	%REC	5	10/25/2019 06:51
Surr: Phenol-d6	70.0			28-111	%REC	5	10/25/2019 06:51
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,500	6,000	µg/Kg-dry	1	10/25/2019 18:40
Surr: Toluene-d8	85.8			70-130	%REC	1	10/25/2019 18:40
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C		Analyst: MF		
1,1,1-Trichloroethane	U		0.76	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,1,2,2-Tetrachloroethane	U		0.61	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,1,2-Trichloroethane	U		0.64	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,1,2-Trichlorotrifluoroethane	U		1.1	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,1-Dichloroethane	U		0.59	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,1-Dichloroethene	U		0.94	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2,3-Trichlorobenzene	U		1.7	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2,4-Trichlorobenzene	U		1.1	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2-Dibromo-3-chloropropane	U		0.95	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2-Dibromoethane	U		0.35	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2-Dichlorobenzene	U		0.67	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2-Dichloroethane	U		0.54	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,2-Dichloropropane	U		0.42	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
1,3-Dichlorobenzene	U		0.59	4.8	µg/Kg-dry	0.803	10/28/2019 05:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-01-03
Collection Date: 10/16/2019 02:51 PM

Work Order: 19101554
Lab ID: 19101554-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.61	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
2-Butanone	40		4.9	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
2-Hexanone	U		1.7	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
4-Methyl-2-pentanone	U		1.7	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Acetone	U		4.4	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Benzene	U		0.50	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Bromochloromethane	U		0.52	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Bromodichloromethane	U		0.58	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Bromoform	U		0.48	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Bromomethane	U		2.4	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Carbon disulfide	0.60	J	0.57	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Carbon tetrachloride	U		0.96	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Chlorobenzene	U		0.60	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Chloroethane	U		1.8	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Chloroform	U		0.79	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Chloromethane	U		0.96	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
cis-1,2-Dichloroethene	U		0.52	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
cis-1,3-Dichloropropene	U		0.58	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Cyclohexane	U		1.6	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Dibromochloromethane	U		0.49	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Dichlorodifluoromethane	U		2.4	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Ethylbenzene	U		0.83	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Isopropylbenzene	U		0.82	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.803	10/28/2019 05:48
Methyl acetate	U		1.2	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Methyl tert-butyl ether	U		0.59	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Methylcyclohexane	U		1.4	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
Methylene chloride	U		5.9	9.6	µg/Kg-dry	0.803	10/28/2019 05:48
o-Xylene	U		1.2	2.4	µg/Kg-dry	0.803	10/28/2019 05:48
Styrene	U		0.72	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Tetrachloroethene	U		0.85	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Toluene	U		0.83	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
trans-1,2-Dichloroethene	U		0.48	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
trans-1,3-Dichloropropene	U		0.46	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Trichloroethene	U		0.69	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Trichlorofluoromethane	U		0.68	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Vinyl chloride	U		0.67	4.8	µg/Kg-dry	0.803	10/28/2019 05:48
Surr: 1,2-Dichloroethane-d4	106			83-132	%REC	0.803	10/28/2019 05:48
Surr: 4-Bromofluorobenzene	105			83-111	%REC	0.803	10/28/2019 05:48
Surr: Dibromofluoromethane	45.0	S		77-125	%REC	0.803	10/28/2019 05:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-01-03
Collection Date: 10/16/2019 02:51 PM

Work Order: 19101554
Lab ID: 19101554-01
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	90.8			86-108	%REC	0.803	10/28/2019 05:48
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	16		0.10	0.10	% of sample	1	10/21/2019 15:45

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-21-23
Collection Date: 10/16/2019 03:07 PM

Work Order: 19101554
Lab ID: 19101554-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/21/19		Analyst: KB
Aroclor 1016	U		30	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1221	U		30	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1232	U		30	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1242	U		30	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1248	U		30	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1254	U		24	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1260	U		24	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1262	U		24	87	µg/Kg-dry	1	10/22/2019 18:26
Aroclor 1268	U		24	87	µg/Kg-dry	1	10/22/2019 18:26
Surr: Decachlorobiphenyl	54.1			40-140	%REC	1	10/22/2019 18:26
Surr: Tetrachloro-m-xylene	64.7			45-124	%REC	1	10/22/2019 18:26
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	14		0.055	0.46	mg/Kg-dry	1	10/30/2019 00:08
Barium	78		0.42	0.46	mg/Kg-dry	1	10/30/2019 00:08
Cadmium	U		0.028	0.18	mg/Kg-dry	1	10/30/2019 00:08
Chromium	53		2.0	4.6	mg/Kg-dry	10	10/30/2019 18:25
Lead	12		0.22	0.46	mg/Kg-dry	1	10/30/2019 00:08
Selenium	U		0.42	0.46	mg/Kg-dry	1	10/30/2019 00:08
Silver	U		0.061	0.46	mg/Kg-dry	1	10/30/2019 00:08
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.9	6.4	mg/Kg-dry	1	10/26/2019 05:35
ORO (C21-C35)	U		2.1	6.4	mg/Kg-dry	1	10/26/2019 05:35
Surr: 4-Terphenyl-d14	71.7			25-137	%REC	1	10/26/2019 05:35
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		10	62	µg/Kg-dry	1	10/23/2019 09:26
1,2,4,5-Tetrachlorobenzene	U		49	630	µg/Kg-dry	1	10/23/2019 09:26
1,4-Dioxane	U		45	320	µg/Kg-dry	1	10/23/2019 09:26
2,2'-Oxybis(1-chloropropane)	U		15	62	µg/Kg-dry	1	10/23/2019 09:26
2,3,4,6-Tetrachlorophenol	U		16	130	µg/Kg-dry	1	10/23/2019 09:26
2,4,5-Trichlorophenol	U		17	62	µg/Kg-dry	1	10/23/2019 09:26
2,4,6-Trichlorophenol	U		17	62	µg/Kg-dry	1	10/23/2019 09:26
2,4-Dichlorophenol	U		13	62	µg/Kg-dry	1	10/23/2019 09:26
2,4-Dimethylphenol	U		13	62	µg/Kg-dry	1	10/23/2019 09:26
2,4-Dinitrophenol	U		34	62	µg/Kg-dry	1	10/23/2019 09:26
2,4-Dinitrotoluene	U		16	62	µg/Kg-dry	1	10/23/2019 09:26
2,6-Dinitrotoluene	U		10	62	µg/Kg-dry	1	10/23/2019 09:26
2-Chloronaphthalene	U		8.8	13	µg/Kg-dry	1	10/23/2019 09:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-21-23
Collection Date: 10/16/2019 03:07 PM

Work Order: 19101554
Lab ID: 19101554-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		20	62	µg/Kg-dry	1	10/23/2019 09:26
2-Methylnaphthalene	U		6.4	13	µg/Kg-dry	1	10/23/2019 09:26
2-Methylphenol	U		17	62	µg/Kg-dry	1	10/23/2019 09:26
2-Nitroaniline	U		14	62	µg/Kg-dry	1	10/23/2019 09:26
2-Nitrophenol	U		18	62	µg/Kg-dry	1	10/23/2019 09:26
3&4-Methylphenol	U		13	62	µg/Kg-dry	1	10/23/2019 09:26
3,3'-Dichlorobenzidine	U		9.3	320	µg/Kg-dry	1	10/23/2019 09:26
3-Nitroaniline	U		14	62	µg/Kg-dry	1	10/23/2019 09:26
4,6-Dinitro-2-methylphenol	U		16	62	µg/Kg-dry	1	10/23/2019 09:26
4-Bromophenyl phenyl ether	U		17	62	µg/Kg-dry	1	10/23/2019 09:26
4-Chloro-3-methylphenol	U		18	62	µg/Kg-dry	1	10/23/2019 09:26
4-Chloroaniline	U		9.9	130	µg/Kg-dry	1	10/23/2019 09:26
4-Chlorophenyl phenyl ether	U		17	62	µg/Kg-dry	1	10/23/2019 09:26
4-Nitroaniline	U		98	320	µg/Kg-dry	1	10/23/2019 09:26
4-Nitrophenol	U		56	62	µg/Kg-dry	1	10/23/2019 09:26
Acenaphthene	U		9.1	13	µg/Kg-dry	1	10/23/2019 09:26
Acenaphthylene	U		11	13	µg/Kg-dry	1	10/23/2019 09:26
Acetophenone	U		9.8	62	µg/Kg-dry	1	10/23/2019 09:26
Anthracene	U		8.9	13	µg/Kg-dry	1	10/23/2019 09:26
Atrazine	U		9.9	62	µg/Kg-dry	1	10/23/2019 09:26
Benzaldehyde	U		97	130	µg/Kg-dry	1	10/23/2019 09:26
Benzo(a)anthracene	U		11	13	µg/Kg-dry	1	10/23/2019 09:26
Benzo(a)pyrene	U		7.7	13	µg/Kg-dry	1	10/23/2019 09:26
Benzo(b)fluoranthene	U		9.4	13	µg/Kg-dry	1	10/23/2019 09:26
Benzo(g,h,i)perylene	U		9.6	13	µg/Kg-dry	1	10/23/2019 09:26
Benzo(k)fluoranthene	U		9.5	13	µg/Kg-dry	1	10/23/2019 09:26
Bis(2-chloroethoxy)methane	U		6.0	62	µg/Kg-dry	1	10/23/2019 09:26
Bis(2-chloroethyl)ether	U		18	62	µg/Kg-dry	1	10/23/2019 09:26
Bis(2-ethylhexyl)phthalate	U		11	62	µg/Kg-dry	1	10/23/2019 09:26
Butyl benzyl phthalate	U		11	62	µg/Kg-dry	1	10/23/2019 09:26
Caprolactam	U		22	62	µg/Kg-dry	1	10/23/2019 09:26
Carbazole	U		6.8	62	µg/Kg-dry	1	10/23/2019 09:26
Chrysene	U		10	13	µg/Kg-dry	1	10/23/2019 09:26
Dibenzo(a,h)anthracene	U		6.8	13	µg/Kg-dry	1	10/23/2019 09:26
Dibenzofuran	U		9.2	62	µg/Kg-dry	1	10/23/2019 09:26
Diethyl phthalate	U		9.6	62	µg/Kg-dry	1	10/23/2019 09:26
Dimethyl phthalate	U		12	62	µg/Kg-dry	1	10/23/2019 09:26
Di-n-butyl phthalate	U		12	62	µg/Kg-dry	1	10/23/2019 09:26
Di-n-octyl phthalate	U		12	62	µg/Kg-dry	1	10/23/2019 09:26
Fluoranthene	U		6.0	13	µg/Kg-dry	1	10/23/2019 09:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-21-23
Collection Date: 10/16/2019 03:07 PM

Work Order: 19101554
Lab ID: 19101554-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		9.1	13	µg/Kg-dry	1	10/23/2019 09:26
Hexachlorobenzene	U		18	62	µg/Kg-dry	1	10/23/2019 09:26
Hexachlorobutadiene	U		34	62	µg/Kg-dry	1	10/23/2019 09:26
Hexachlorocyclopentadiene	U		22	62	µg/Kg-dry	1	10/23/2019 09:26
Hexachloroethane	U		26	62	µg/Kg-dry	1	10/23/2019 09:26
Indeno(1,2,3-cd)pyrene	U		8.8	13	µg/Kg-dry	1	10/23/2019 09:26
Isophorone	U		12	320	µg/Kg-dry	1	10/23/2019 09:26
Naphthalene	U		8.0	13	µg/Kg-dry	1	10/23/2019 09:26
Nitrobenzene	U		21	320	µg/Kg-dry	1	10/23/2019 09:26
N-Nitrosodi-n-propylamine	U		10	62	µg/Kg-dry	1	10/23/2019 09:26
N-Nitrosodiphenylamine	U		6.0	62	µg/Kg-dry	1	10/23/2019 09:26
Pentachlorophenol	U		23	62	µg/Kg-dry	1	10/23/2019 09:26
Phenanthrene	U		5.8	13	µg/Kg-dry	1	10/23/2019 09:26
Phenol	U		16	62	µg/Kg-dry	1	10/23/2019 09:26
Pyrene	U		2.3	13	µg/Kg-dry	1	10/23/2019 09:26
Surr: 2,4,6-Tribromophenol	79.7			38-92	%REC	1	10/23/2019 09:26
Surr: 2-Fluorobiphenyl	70.5			44-107	%REC	1	10/23/2019 09:26
Surr: 2-Fluorophenol	79.3			37-109	%REC	1	10/23/2019 09:26
Surr: 4-Terphenyl-d14	67.0			52-123	%REC	1	10/23/2019 09:26
Surr: Nitrobenzene-d5	75.1			41-94	%REC	1	10/23/2019 09:26
Surr: Phenol-d6	81.3			28-111	%REC	1	10/23/2019 09:26
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,700	6,900	µg/Kg-dry	1	10/25/2019 18:57
Surr: Toluene-d8	87.8			70-130	%REC	1	10/25/2019 18:57
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		1.0	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,1,2,2-Tetrachloroethane	U		0.83	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,1,2-Trichloroethane	U		0.87	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,1,2-Trichlorotrifluoroethane	U		1.4	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,1-Dichloroethane	U		0.81	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,1-Dichloroethene	U		1.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2,3-Trichlorobenzene	U		2.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2,4-Trichlorobenzene	U		1.4	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2-Dibromo-3-chloropropane	U		1.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2-Dibromoethane	U		0.47	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2-Dichlorobenzene	U		0.91	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2-Dichloroethane	U		0.73	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,2-Dichloropropane	U		0.57	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
1,3-Dichlorobenzene	U		0.79	6.5	µg/Kg-dry	0.992	10/27/2019 19:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-21-23
Collection Date: 10/16/2019 03:07 PM

Work Order: 19101554
Lab ID: 19101554-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.83	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
2-Butanone	U		6.6	13	µg/Kg-dry	0.992	10/27/2019 19:49
2-Hexanone	U		2.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
4-Methyl-2-pentanone	U		2.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Acetone	11	J	6.0	13	µg/Kg-dry	0.992	10/27/2019 19:49
Benzene	U		0.68	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Bromochloromethane	U		0.70	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Bromodichloromethane	U		0.78	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Bromoform	U		0.65	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Bromomethane	U		3.3	13	µg/Kg-dry	0.992	10/27/2019 19:49
Carbon disulfide	U		0.77	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Carbon tetrachloride	U		1.3	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Chlorobenzene	U		0.82	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Chloroethane	U		2.5	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Chloroform	U		1.1	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Chloromethane	U		1.3	13	µg/Kg-dry	0.992	10/27/2019 19:49
cis-1,2-Dichloroethene	U		0.70	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
cis-1,3-Dichloropropene	U		0.78	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Cyclohexane	U		2.2	13	µg/Kg-dry	0.992	10/27/2019 19:49
Dibromochloromethane	U		0.66	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Dichlorodifluoromethane	U		3.3	13	µg/Kg-dry	0.992	10/27/2019 19:49
Ethylbenzene	U		1.1	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Isopropylbenzene	U		1.1	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
m,p-Xylene	U		2.9	3.3	µg/Kg-dry	0.992	10/27/2019 19:49
Methyl acetate	U		1.6	13	µg/Kg-dry	0.992	10/27/2019 19:49
Methyl tert-butyl ether	U		0.79	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Methylcyclohexane	U		1.9	13	µg/Kg-dry	0.992	10/27/2019 19:49
Methylene chloride	U		8.1	13	µg/Kg-dry	0.992	10/27/2019 19:49
o-Xylene	U		1.6	3.3	µg/Kg-dry	0.992	10/27/2019 19:49
Styrene	U		0.98	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Tetrachloroethene	U		1.2	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Toluene	U		1.1	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
trans-1,2-Dichloroethene	U		0.65	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
trans-1,3-Dichloropropene	U		0.63	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Trichloroethene	U		0.94	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Trichlorofluoromethane	U		0.92	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Vinyl chloride	U		0.91	6.5	µg/Kg-dry	0.992	10/27/2019 19:49
Surr: 1,2-Dichloroethane-d4	113			83-132	%REC	0.992	10/27/2019 19:49
Surr: 4-Bromofluorobenzene	108			83-111	%REC	0.992	10/27/2019 19:49
Surr: Dibromofluoromethane	54.8	S		77-125	%REC	0.992	10/27/2019 19:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB01-21-23
Collection Date: 10/16/2019 03:07 PM

Work Order: 19101554
Lab ID: 19101554-02
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	101			86-108	%REC	0.992	10/27/2019 19:49
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	24		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-01-03
Collection Date: 10/16/2019 03:38 PM

Work Order: 19101554
Lab ID: 19101554-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/22/19		Analyst: KB
Aroclor 1016	U		26	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1221	U		26	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1232	U		26	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1242	U		26	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1248	U		26	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1254	U		21	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1260	U		21	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1262	U		21	75	µg/Kg-dry	1	10/25/2019 18:10
Aroclor 1268	U		21	75	µg/Kg-dry	1	10/25/2019 18:10
Surr: Decachlorobiphenyl	94.7			40-140	%REC	1	10/25/2019 18:10
Surr: Tetrachloro-m-xylene	79.9			45-124	%REC	1	10/25/2019 18:10
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	5.0		0.044	0.37	mg/Kg-dry	1	10/30/2019 00:09
Barium	36		0.34	0.37	mg/Kg-dry	1	10/30/2019 00:09
Cadmium	U		0.022	0.15	mg/Kg-dry	1	10/30/2019 00:09
Chromium	34		1.6	3.7	mg/Kg-dry	10	10/30/2019 18:27
Lead	5.2		0.18	0.37	mg/Kg-dry	1	10/30/2019 00:09
Selenium	U		0.34	0.37	mg/Kg-dry	1	10/30/2019 00:09
Silver	U		0.049	0.37	mg/Kg-dry	1	10/30/2019 00:09
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.7	mg/Kg-dry	1	10/26/2019 10:35
ORO (C21-C35)	U		1.9	5.7	mg/Kg-dry	1	10/26/2019 10:35
Surr: 4-Terphenyl-d14	50.0			25-137	%REC	1	10/26/2019 10:35
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.2	38	µg/Kg-dry	1	10/23/2019 09:47
1,2,4,5-Tetrachlorobenzene	U		30	380	µg/Kg-dry	1	10/23/2019 09:47
1,4-Dioxane	U		28	190	µg/Kg-dry	1	10/23/2019 09:47
2,2'-Oxybis(1-chloropropane)	U		9.0	38	µg/Kg-dry	1	10/23/2019 09:47
2,3,4,6-Tetrachlorophenol	U		10	77	µg/Kg-dry	1	10/23/2019 09:47
2,4,5-Trichlorophenol	U		10	38	µg/Kg-dry	1	10/23/2019 09:47
2,4,6-Trichlorophenol	U		10	38	µg/Kg-dry	1	10/23/2019 09:47
2,4-Dichlorophenol	U		8.1	38	µg/Kg-dry	1	10/23/2019 09:47
2,4-Dimethylphenol	U		7.8	38	µg/Kg-dry	1	10/23/2019 09:47
2,4-Dinitrophenol	U		21	38	µg/Kg-dry	1	10/23/2019 09:47
2,4-Dinitrotoluene	U		10	38	µg/Kg-dry	1	10/23/2019 09:47
2,6-Dinitrotoluene	U		6.3	38	µg/Kg-dry	1	10/23/2019 09:47
2-Chloronaphthalene	U		5.4	7.7	µg/Kg-dry	1	10/23/2019 09:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-01-03
Collection Date: 10/16/2019 03:38 PM

Work Order: 19101554
Lab ID: 19101554-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	38	µg/Kg-dry	1	10/23/2019 09:47
2-Methylnaphthalene	U		3.9	7.7	µg/Kg-dry	1	10/23/2019 09:47
2-Methylphenol	U		10	38	µg/Kg-dry	1	10/23/2019 09:47
2-Nitroaniline	U		8.8	38	µg/Kg-dry	1	10/23/2019 09:47
2-Nitrophenol	U		11	38	µg/Kg-dry	1	10/23/2019 09:47
3&4-Methylphenol	U		7.7	38	µg/Kg-dry	1	10/23/2019 09:47
3,3'-Dichlorobenzidine	U		5.7	190	µg/Kg-dry	1	10/23/2019 09:47
3-Nitroaniline	U		8.8	38	µg/Kg-dry	1	10/23/2019 09:47
4,6-Dinitro-2-methylphenol	U		9.6	38	µg/Kg-dry	1	10/23/2019 09:47
4-Bromophenyl phenyl ether	U		10	38	µg/Kg-dry	1	10/23/2019 09:47
4-Chloro-3-methylphenol	U		11	38	µg/Kg-dry	1	10/23/2019 09:47
4-Chloroaniline	U		6.1	77	µg/Kg-dry	1	10/23/2019 09:47
4-Chlorophenyl phenyl ether	U		11	38	µg/Kg-dry	1	10/23/2019 09:47
4-Nitroaniline	U		60	190	µg/Kg-dry	1	10/23/2019 09:47
4-Nitrophenol	U		34	38	µg/Kg-dry	1	10/23/2019 09:47
Acenaphthene	U		5.6	7.7	µg/Kg-dry	1	10/23/2019 09:47
Acenaphthylene	U		6.7	7.7	µg/Kg-dry	1	10/23/2019 09:47
Acetophenone	U		6.0	38	µg/Kg-dry	1	10/23/2019 09:47
Anthracene	U		5.4	7.7	µg/Kg-dry	1	10/23/2019 09:47
Atrazine	U		6.1	38	µg/Kg-dry	1	10/23/2019 09:47
Benzaldehyde	U		59	77	µg/Kg-dry	1	10/23/2019 09:47
Benzo(a)anthracene	U		6.6	7.7	µg/Kg-dry	1	10/23/2019 09:47
Benzo(a)pyrene	U		4.7	7.7	µg/Kg-dry	1	10/23/2019 09:47
Benzo(b)fluoranthene	U		5.7	7.7	µg/Kg-dry	1	10/23/2019 09:47
Benzo(g,h,i)perylene	U		5.9	7.7	µg/Kg-dry	1	10/23/2019 09:47
Benzo(k)fluoranthene	U		5.8	7.7	µg/Kg-dry	1	10/23/2019 09:47
Bis(2-chloroethoxy)methane	U		3.7	38	µg/Kg-dry	1	10/23/2019 09:47
Bis(2-chloroethyl)ether	U		11	38	µg/Kg-dry	1	10/23/2019 09:47
Bis(2-ethylhexyl)phthalate	U		6.7	38	µg/Kg-dry	1	10/23/2019 09:47
Butyl benzyl phthalate	U		6.5	38	µg/Kg-dry	1	10/23/2019 09:47
Caprolactam	U		13	38	µg/Kg-dry	1	10/23/2019 09:47
Carbazole	U		4.1	38	µg/Kg-dry	1	10/23/2019 09:47
Chrysene	U		6.2	7.7	µg/Kg-dry	1	10/23/2019 09:47
Dibenzo(a,h)anthracene	U		4.1	7.7	µg/Kg-dry	1	10/23/2019 09:47
Dibenzofuran	U		5.6	38	µg/Kg-dry	1	10/23/2019 09:47
Diethyl phthalate	U		5.9	38	µg/Kg-dry	1	10/23/2019 09:47
Dimethyl phthalate	U		7.5	38	µg/Kg-dry	1	10/23/2019 09:47
Di-n-butyl phthalate	U		7.0	38	µg/Kg-dry	1	10/23/2019 09:47
Di-n-octyl phthalate	U		7.4	38	µg/Kg-dry	1	10/23/2019 09:47
Fluoranthene	U		3.7	7.7	µg/Kg-dry	1	10/23/2019 09:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-01-03
Collection Date: 10/16/2019 03:38 PM

Work Order: 19101554
Lab ID: 19101554-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.6	7.7	µg/Kg-dry	1	10/23/2019 09:47
Hexachlorobenzene	U		11	38	µg/Kg-dry	1	10/23/2019 09:47
Hexachlorobutadiene	U		21	38	µg/Kg-dry	1	10/23/2019 09:47
Hexachlorocyclopentadiene	U		13	38	µg/Kg-dry	1	10/23/2019 09:47
Hexachloroethane	U		16	38	µg/Kg-dry	1	10/23/2019 09:47
Indeno(1,2,3-cd)pyrene	U		5.3	7.7	µg/Kg-dry	1	10/23/2019 09:47
Isophorone	U		7.5	190	µg/Kg-dry	1	10/23/2019 09:47
Naphthalene	U		4.9	7.7	µg/Kg-dry	1	10/23/2019 09:47
Nitrobenzene	U		13	190	µg/Kg-dry	1	10/23/2019 09:47
N-Nitrosodi-n-propylamine	U		6.3	38	µg/Kg-dry	1	10/23/2019 09:47
N-Nitrosodiphenylamine	U		3.7	38	µg/Kg-dry	1	10/23/2019 09:47
Pentachlorophenol	U		14	38	µg/Kg-dry	1	10/23/2019 09:47
Phenanthrene	U		3.6	7.7	µg/Kg-dry	1	10/23/2019 09:47
Phenol	U		9.5	38	µg/Kg-dry	1	10/23/2019 09:47
Pyrene	U		1.4	7.7	µg/Kg-dry	1	10/23/2019 09:47
Surr: 2,4,6-Tribromophenol	74.8			38-92	%REC	1	10/23/2019 09:47
Surr: 2-Fluorobiphenyl	68.7			44-107	%REC	1	10/23/2019 09:47
Surr: 2-Fluorophenol	79.7			37-109	%REC	1	10/23/2019 09:47
Surr: 4-Terphenyl-d14	64.1			52-123	%REC	1	10/23/2019 09:47
Surr: Nitrobenzene-d5	73.8			41-94	%REC	1	10/23/2019 09:47
Surr: Phenol-d6	78.6			28-111	%REC	1	10/23/2019 09:47
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,500	5,900	µg/Kg-dry	1	10/25/2019 19:14
Surr: Toluene-d8	86.2			70-130	%REC	1	10/25/2019 19:14
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.93	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,1,2,2-Tetrachloroethane	U		0.75	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,1,2-Trichloroethane	U		0.78	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,1,2-Trichlorotrifluoroethane	U		1.3	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,1-Dichloroethane	U		0.73	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,1-Dichloroethene	U		1.1	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2,3-Trichlorobenzene	U		2.1	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2,4-Trichlorobenzene	U		1.3	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2-Dibromo-3-chloropropane	U		1.2	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2-Dibromoethane	U		0.42	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2-Dichlorobenzene	U		0.82	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2-Dichloroethane	U		0.66	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,2-Dichloropropane	U		0.52	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
1,3-Dichlorobenzene	U		0.71	5.9	µg/Kg-dry	0.998	10/28/2019 06:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-01-03
Collection Date: 10/16/2019 03:38 PM

Work Order: 19101554
Lab ID: 19101554-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.75	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
2-Butanone	U		6.0	12	µg/Kg-dry	0.998	10/28/2019 06:22
2-Hexanone	U		2.1	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
4-Methyl-2-pentanone	U		2.1	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Acetone	21		5.4	12	µg/Kg-dry	0.998	10/28/2019 06:22
Benzene	U		0.61	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Bromochloromethane	U		0.63	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Bromodichloromethane	U		0.70	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Bromoform	U		0.59	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Bromomethane	U		2.9	12	µg/Kg-dry	0.998	10/28/2019 06:22
Carbon disulfide	U		0.69	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Carbon tetrachloride	U		1.2	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Chlorobenzene	U		0.74	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Chloroethane	U		2.2	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Chloroform	U		0.96	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Chloromethane	U		1.2	12	µg/Kg-dry	0.998	10/28/2019 06:22
cis-1,2-Dichloroethene	U		0.63	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
cis-1,3-Dichloropropene	U		0.70	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Cyclohexane	U		2.0	12	µg/Kg-dry	0.998	10/28/2019 06:22
Dibromochloromethane	U		0.60	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Dichlorodifluoromethane	U		2.9	12	µg/Kg-dry	0.998	10/28/2019 06:22
Ethylbenzene	U		1.0	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Isopropylbenzene	U		1.0	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
m,p-Xylene	U		2.6	2.9	µg/Kg-dry	0.998	10/28/2019 06:22
Methyl acetate	U		1.4	12	µg/Kg-dry	0.998	10/28/2019 06:22
Methyl tert-butyl ether	U		0.71	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Methylcyclohexane	U		1.7	12	µg/Kg-dry	0.998	10/28/2019 06:22
Methylene chloride	U		7.3	12	µg/Kg-dry	0.998	10/28/2019 06:22
o-Xylene	U		1.4	2.9	µg/Kg-dry	0.998	10/28/2019 06:22
Styrene	U		0.88	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Tetrachloroethene	U		1.0	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Toluene	U		1.0	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
trans-1,2-Dichloroethene	U		0.59	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
trans-1,3-Dichloropropene	U		0.56	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Trichloroethene	U		0.84	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Trichlorofluoromethane	U		0.83	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Vinyl chloride	U		0.82	5.9	µg/Kg-dry	0.998	10/28/2019 06:22
Surr: 1,2-Dichloroethane-d4	102			83-132	%REC	0.998	10/28/2019 06:22
Surr: 4-Bromofluorobenzene	108			83-111	%REC	0.998	10/28/2019 06:22
Surr: Dibromofluoromethane	45.4	S		77-125	%REC	0.998	10/28/2019 06:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-01-03
Collection Date: 10/16/2019 03:38 PM

Work Order: 19101554
Lab ID: 19101554-03
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	86.4			86-108	%REC	0.998	10/28/2019 06:22
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	15		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-27-29
Collection Date: 10/16/2019 04:13 PM

Work Order: 19101554
Lab ID: 19101554-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/22/19		Analyst: KB
Aroclor 1016	U		26	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1221	U		26	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1232	U		26	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1242	U		26	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1248	U		26	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1254	U		21	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1260	U		21	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1262	U		21	75	µg/Kg-dry	1	10/25/2019 18:25
Aroclor 1268	U		21	75	µg/Kg-dry	1	10/25/2019 18:25
Surr: Decachlorobiphenyl	98.5			40-140	%REC	1	10/25/2019 18:25
Surr: Tetrachloro-m-xylene	82.5			45-124	%REC	1	10/25/2019 18:25
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	20		0.052	0.43	mg/Kg-dry	1	10/30/2019 00:11
Barium	33		0.40	0.43	mg/Kg-dry	1	10/30/2019 00:11
Cadmium	U		0.026	0.17	mg/Kg-dry	1	10/30/2019 00:11
Chromium	11		0.19	0.43	mg/Kg-dry	1	10/30/2019 00:11
Lead	15		0.21	0.43	mg/Kg-dry	1	10/30/2019 00:11
Selenium	U		0.40	0.43	mg/Kg-dry	1	10/30/2019 00:11
Silver	U		0.057	0.43	mg/Kg-dry	1	10/30/2019 00:11
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.8	mg/Kg-dry	1	10/26/2019 10:55
ORO (C21-C35)	U		1.9	5.8	mg/Kg-dry	1	10/26/2019 10:55
Surr: 4-Terphenyl-d14	55.7			25-137	%REC	1	10/26/2019 10:55
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.3	38	µg/Kg-dry	1	10/25/2019 01:54
1,2,4,5-Tetrachlorobenzene	U		30	390	µg/Kg-dry	1	10/25/2019 01:54
1,4-Dioxane	U		28	190	µg/Kg-dry	1	10/25/2019 01:54
2,2'-Oxybis(1-chloropropane)	U		9.1	38	µg/Kg-dry	1	10/25/2019 01:54
2,3,4,6-Tetrachlorophenol	U		10	78	µg/Kg-dry	1	10/25/2019 01:54
2,4,5-Trichlorophenol	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
2,4,6-Trichlorophenol	U		10	38	µg/Kg-dry	1	10/25/2019 01:54
2,4-Dichlorophenol	U		8.2	38	µg/Kg-dry	1	10/25/2019 01:54
2,4-Dimethylphenol	U		7.9	38	µg/Kg-dry	1	10/25/2019 01:54
2,4-Dinitrophenol	U		21	38	µg/Kg-dry	1	10/25/2019 01:54
2,4-Dinitrotoluene	U		10	38	µg/Kg-dry	1	10/25/2019 01:54
2,6-Dinitrotoluene	U		6.4	38	µg/Kg-dry	1	10/25/2019 01:54
2-Chloronaphthalene	U		5.4	7.8	µg/Kg-dry	1	10/25/2019 01:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-27-29
Collection Date: 10/16/2019 04:13 PM

Work Order: 19101554
Lab ID: 19101554-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	38	µg/Kg-dry	1	10/25/2019 01:54
2-Methylnaphthalene	U		3.9	7.8	µg/Kg-dry	1	10/25/2019 01:54
2-Methylphenol	U		10	38	µg/Kg-dry	1	10/25/2019 01:54
2-Nitroaniline	U		8.9	38	µg/Kg-dry	1	10/25/2019 01:54
2-Nitrophenol	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
3&4-Methylphenol	U		7.8	38	µg/Kg-dry	1	10/25/2019 01:54
3,3'-Dichlorobenzidine	U		5.8	190	µg/Kg-dry	1	10/25/2019 01:54
3-Nitroaniline	U		8.9	38	µg/Kg-dry	1	10/25/2019 01:54
4,6-Dinitro-2-methylphenol	U		9.7	38	µg/Kg-dry	1	10/25/2019 01:54
4-Bromophenyl phenyl ether	U		10	38	µg/Kg-dry	1	10/25/2019 01:54
4-Chloro-3-methylphenol	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
4-Chloroaniline	U		6.1	78	µg/Kg-dry	1	10/25/2019 01:54
4-Chlorophenyl phenyl ether	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
4-Nitroaniline	U		60	190	µg/Kg-dry	1	10/25/2019 01:54
4-Nitrophenol	U		35	38	µg/Kg-dry	1	10/25/2019 01:54
Acenaphthene	U		5.6	7.8	µg/Kg-dry	1	10/25/2019 01:54
Acenaphthylene	U		6.7	7.8	µg/Kg-dry	1	10/25/2019 01:54
Acetophenone	U		6.1	38	µg/Kg-dry	1	10/25/2019 01:54
Anthracene	U		5.5	7.8	µg/Kg-dry	1	10/25/2019 01:54
Atrazine	U		6.1	38	µg/Kg-dry	1	10/25/2019 01:54
Benzaldehyde	U		60	78	µg/Kg-dry	1	10/25/2019 01:54
Benzo(a)anthracene	U		6.7	7.8	µg/Kg-dry	1	10/25/2019 01:54
Benzo(a)pyrene	U		4.8	7.8	µg/Kg-dry	1	10/25/2019 01:54
Benzo(b)fluoranthene	U		5.8	7.8	µg/Kg-dry	1	10/25/2019 01:54
Benzo(g,h,i)perylene	U		5.9	7.8	µg/Kg-dry	1	10/25/2019 01:54
Benzo(k)fluoranthene	U		5.9	7.8	µg/Kg-dry	1	10/25/2019 01:54
Bis(2-chloroethoxy)methane	U		3.7	38	µg/Kg-dry	1	10/25/2019 01:54
Bis(2-chloroethyl)ether	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
Bis(2-ethylhexyl)phthalate	U		6.7	38	µg/Kg-dry	1	10/25/2019 01:54
Butyl benzyl phthalate	U		6.6	38	µg/Kg-dry	1	10/25/2019 01:54
Caprolactam	U		13	38	µg/Kg-dry	1	10/25/2019 01:54
Carbazole	U		4.2	38	µg/Kg-dry	1	10/25/2019 01:54
Chrysene	U		6.3	7.8	µg/Kg-dry	1	10/25/2019 01:54
Dibenzo(a,h)anthracene	U		4.2	7.8	µg/Kg-dry	1	10/25/2019 01:54
Dibenzofuran	U		5.7	38	µg/Kg-dry	1	10/25/2019 01:54
Diethyl phthalate	U		5.9	38	µg/Kg-dry	1	10/25/2019 01:54
Dimethyl phthalate	U		7.6	38	µg/Kg-dry	1	10/25/2019 01:54
Di-n-butyl phthalate	U		7.1	38	µg/Kg-dry	1	10/25/2019 01:54
Di-n-octyl phthalate	U		7.4	38	µg/Kg-dry	1	10/25/2019 01:54
Fluoranthene	U		3.7	7.8	µg/Kg-dry	1	10/25/2019 01:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-27-29
Collection Date: 10/16/2019 04:13 PM

Work Order: 19101554
Lab ID: 19101554-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.6	7.8	µg/Kg-dry	1	10/25/2019 01:54
Hexachlorobenzene	U		11	38	µg/Kg-dry	1	10/25/2019 01:54
Hexachlorobutadiene	U		21	38	µg/Kg-dry	1	10/25/2019 01:54
Hexachlorocyclopentadiene	U		13	38	µg/Kg-dry	1	10/25/2019 01:54
Hexachloroethane	U		16	38	µg/Kg-dry	1	10/25/2019 01:54
Indeno(1,2,3-cd)pyrene	U		5.4	7.8	µg/Kg-dry	1	10/25/2019 01:54
Isophorone	U		7.6	190	µg/Kg-dry	1	10/25/2019 01:54
Naphthalene	U		5.0	7.8	µg/Kg-dry	1	10/25/2019 01:54
Nitrobenzene	U		13	190	µg/Kg-dry	1	10/25/2019 01:54
N-Nitrosodi-n-propylamine	U		6.4	38	µg/Kg-dry	1	10/25/2019 01:54
N-Nitrosodiphenylamine	U		3.7	38	µg/Kg-dry	1	10/25/2019 01:54
Pentachlorophenol	U		14	38	µg/Kg-dry	1	10/25/2019 01:54
Phenanthrene	U		3.6	7.8	µg/Kg-dry	1	10/25/2019 01:54
Phenol	U		9.6	38	µg/Kg-dry	1	10/25/2019 01:54
Pyrene	U		1.4	7.8	µg/Kg-dry	1	10/25/2019 01:54
Surr: 2,4,6-Tribromophenol	77.0			38-92	%REC	1	10/25/2019 01:54
Surr: 2-Fluorobiphenyl	75.3			44-107	%REC	1	10/25/2019 01:54
Surr: 2-Fluorophenol	84.4			37-109	%REC	1	10/25/2019 01:54
Surr: 4-Terphenyl-d14	69.3			52-123	%REC	1	10/25/2019 01:54
Surr: Nitrobenzene-d5	82.1			41-94	%REC	1	10/25/2019 01:54
Surr: Phenol-d6	85.3			28-111	%REC	1	10/25/2019 01:54
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,500	6,100	µg/Kg-dry	1	10/25/2019 19:31
Surr: Toluene-d8	87.3			70-130	%REC	1	10/25/2019 19:31
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.77	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,1,2,2-Tetrachloroethane	U		0.62	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,1,2-Trichloroethane	U		0.65	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,1,2-Trichlorotrifluoroethane	U		1.1	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,1-Dichloroethane	U		0.61	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,1-Dichloroethene	U		0.96	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2,3-Trichlorobenzene	U		1.8	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2,4-Trichlorobenzene	U		1.1	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2-Dibromo-3-chloropropane	U		0.97	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2-Dibromoethane	U		0.35	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2-Dichlorobenzene	U		0.68	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2-Dichloroethane	U		0.55	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,2-Dichloropropane	U		0.43	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
1,3-Dichlorobenzene	U		0.60	4.9	µg/Kg-dry	0.833	10/27/2019 20:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-27-29
Collection Date: 10/16/2019 04:13 PM

Work Order: 19101554
Lab ID: 19101554-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.62	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
2-Butanone	U		5.0	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
2-Hexanone	U		1.8	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
4-Methyl-2-pentanone	U		1.8	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Acetone	5.0	J	4.5	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Benzene	U		0.51	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Bromochloromethane	U		0.53	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Bromodichloromethane	U		0.59	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Bromoform	U		0.49	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Bromomethane	U		2.4	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Carbon disulfide	U		0.58	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Carbon tetrachloride	U		0.98	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Chlorobenzene	U		0.62	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Chloroethane	U		1.9	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Chloroform	U		0.80	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Chloromethane	U		0.98	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
cis-1,2-Dichloroethene	U		0.53	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
cis-1,3-Dichloropropene	U		0.59	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Cyclohexane	U		1.7	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Dibromochloromethane	U		0.50	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Dichlorodifluoromethane	U		2.4	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Ethylbenzene	U		0.85	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Isopropylbenzene	U		0.83	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.833	10/27/2019 20:22
Methyl acetate	U		1.2	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Methyl tert-butyl ether	U		0.60	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Methylcyclohexane	U		1.5	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
Methylene chloride	U		6.1	9.8	µg/Kg-dry	0.833	10/27/2019 20:22
o-Xylene	U		1.2	2.4	µg/Kg-dry	0.833	10/27/2019 20:22
Styrene	U		0.73	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Tetrachloroethene	U		0.87	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Toluene	U		0.84	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
trans-1,2-Dichloroethene	U		0.49	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
trans-1,3-Dichloropropene	U		0.47	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Trichloroethene	U		0.70	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Trichlorofluoromethane	U		0.69	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Vinyl chloride	U		0.68	4.9	µg/Kg-dry	0.833	10/27/2019 20:22
Surr: 1,2-Dichloroethane-d4	114			83-132	%REC	0.833	10/27/2019 20:22
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.833	10/27/2019 20:22
Surr: Dibromofluoromethane	50.5	S		77-125	%REC	0.833	10/27/2019 20:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB02-27-29
Collection Date: 10/16/2019 04:13 PM

Work Order: 19101554
Lab ID: 19101554-04
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	97.2			86-108	%REC	0.833	10/27/2019 20:22
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	15		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-01-03
Collection Date: 10/16/2019 04:53 PM

Work Order: 19101554
Lab ID: 19101554-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/22/19		Analyst: KB
Aroclor 1016	U		40	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1221	U		40	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1232	U		40	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1242	U		40	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1248	U		40	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1254	U		32	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1260	U		32	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1262	U		32	120	µg/Kg-dry	1	10/25/2019 18:39
Aroclor 1268	U		32	120	µg/Kg-dry	1	10/25/2019 18:39
Surr: Decachlorobiphenyl	97.3			40-140	%REC	1	10/25/2019 18:39
Surr: Tetrachloro-m-xylene	80.0			45-124	%REC	1	10/25/2019 18:39
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	6.5		0.056	0.47	mg/Kg-dry	1	10/30/2019 00:13
Barium	180		4.3	4.7	mg/Kg-dry	10	10/30/2019 18:28
Cadmium	0.091	J	0.028	0.19	mg/Kg-dry	1	10/30/2019 00:13
Chromium	23		2.0	4.7	mg/Kg-dry	10	10/30/2019 18:28
Lead	66		0.22	0.47	mg/Kg-dry	1	10/30/2019 00:13
Selenium	U		0.43	0.47	mg/Kg-dry	1	10/30/2019 00:13
Silver	U		0.061	0.47	mg/Kg-dry	1	10/30/2019 00:13
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	13		1.7	5.8	mg/Kg-dry	1	10/26/2019 11:15
ORO (C21-C35)	3.7	J	1.9	5.8	mg/Kg-dry	1	10/26/2019 11:15
Surr: 4-Terphenyl-d14	61.1			25-137	%REC	1	10/26/2019 11:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.1	37	µg/Kg-dry	1	10/25/2019 02:15
1,2,4,5-Tetrachlorobenzene	U		29	370	µg/Kg-dry	1	10/25/2019 02:15
1,4-Dioxane	U		27	190	µg/Kg-dry	1	10/25/2019 02:15
2,2'-Oxybis(1-chloropropane)	U		8.7	37	µg/Kg-dry	1	10/25/2019 02:15
2,3,4,6-Tetrachlorophenol	U		9.7	75	µg/Kg-dry	1	10/25/2019 02:15
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/25/2019 02:15
2,4,6-Trichlorophenol	U		9.9	37	µg/Kg-dry	1	10/25/2019 02:15
2,4-Dichlorophenol	U		7.9	37	µg/Kg-dry	1	10/25/2019 02:15
2,4-Dimethylphenol	U		7.6	37	µg/Kg-dry	1	10/25/2019 02:15
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/25/2019 02:15
2,4-Dinitrotoluene	U		9.7	37	µg/Kg-dry	1	10/25/2019 02:15
2,6-Dinitrotoluene	U		6.2	37	µg/Kg-dry	1	10/25/2019 02:15
2-Chloronaphthalene	U		5.2	7.5	µg/Kg-dry	1	10/25/2019 02:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-01-03
Collection Date: 10/16/2019 04:53 PM

Work Order: 19101554
Lab ID: 19101554-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/25/2019 02:15
2-Methylnaphthalene	130		3.8	7.5	µg/Kg-dry	1	10/25/2019 02:15
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/25/2019 02:15
2-Nitroaniline	U		8.6	37	µg/Kg-dry	1	10/25/2019 02:15
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/25/2019 02:15
3&4-Methylphenol	U		7.5	37	µg/Kg-dry	1	10/25/2019 02:15
3,3'-Dichlorobenzidine	U		5.5	190	µg/Kg-dry	1	10/25/2019 02:15
3-Nitroaniline	U		8.6	37	µg/Kg-dry	1	10/25/2019 02:15
4,6-Dinitro-2-methylphenol	U		9.4	37	µg/Kg-dry	1	10/25/2019 02:15
4-Bromophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/25/2019 02:15
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/25/2019 02:15
4-Chloroaniline	U		5.9	75	µg/Kg-dry	1	10/25/2019 02:15
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/25/2019 02:15
4-Nitroaniline	U		58	190	µg/Kg-dry	1	10/25/2019 02:15
4-Nitrophenol	U		33	37	µg/Kg-dry	1	10/25/2019 02:15
Acenaphthene	U		5.4	7.5	µg/Kg-dry	1	10/25/2019 02:15
Acenaphthylene	10		6.5	7.5	µg/Kg-dry	1	10/25/2019 02:15
Acetophenone	U		5.8	37	µg/Kg-dry	1	10/25/2019 02:15
Anthracene	28		5.3	7.5	µg/Kg-dry	1	10/25/2019 02:15
Atrazine	U		5.9	37	µg/Kg-dry	1	10/25/2019 02:15
Benzaldehyde	U		57	75	µg/Kg-dry	1	10/25/2019 02:15
Benzo(a)anthracene	69		6.4	7.5	µg/Kg-dry	1	10/25/2019 02:15
Benzo(a)pyrene	62		4.6	7.5	µg/Kg-dry	1	10/25/2019 02:15
Benzo(b)fluoranthene	93		5.6	7.5	µg/Kg-dry	1	10/25/2019 02:15
Benzo(g,h,i)perylene	50		5.7	7.5	µg/Kg-dry	1	10/25/2019 02:15
Benzo(k)fluoranthene	36		5.7	7.5	µg/Kg-dry	1	10/25/2019 02:15
Bis(2-chloroethoxy)methane	U		3.6	37	µg/Kg-dry	1	10/25/2019 02:15
Bis(2-chloroethyl)ether	U		11	37	µg/Kg-dry	1	10/25/2019 02:15
Bis(2-ethylhexyl)phthalate	U		6.5	37	µg/Kg-dry	1	10/25/2019 02:15
Butyl benzyl phthalate	U		6.3	37	µg/Kg-dry	1	10/25/2019 02:15
Caprolactam	U		13	37	µg/Kg-dry	1	10/25/2019 02:15
Carbazole	U		4.0	37	µg/Kg-dry	1	10/25/2019 02:15
Chrysene	72		6.0	7.5	µg/Kg-dry	1	10/25/2019 02:15
Dibenzo(a,h)anthracene	16		4.0	7.5	µg/Kg-dry	1	10/25/2019 02:15
Dibenzofuran	54		5.5	37	µg/Kg-dry	1	10/25/2019 02:15
Diethyl phthalate	U		5.7	37	µg/Kg-dry	1	10/25/2019 02:15
Dimethyl phthalate	U		7.3	37	µg/Kg-dry	1	10/25/2019 02:15
Di-n-butyl phthalate	U		6.8	37	µg/Kg-dry	1	10/25/2019 02:15
Di-n-octyl phthalate	U		7.2	37	µg/Kg-dry	1	10/25/2019 02:15
Fluoranthene	160		3.6	7.5	µg/Kg-dry	1	10/25/2019 02:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-01-03
Collection Date: 10/16/2019 04:53 PM

Work Order: 19101554
Lab ID: 19101554-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.4	7.5	µg/Kg-dry	1	10/25/2019 02:15
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/25/2019 02:15
Hexachlorobutadiene	U		20	37	µg/Kg-dry	1	10/25/2019 02:15
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/25/2019 02:15
Hexachloroethane	U		15	37	µg/Kg-dry	1	10/25/2019 02:15
Indeno(1,2,3-cd)pyrene	43		5.2	7.5	µg/Kg-dry	1	10/25/2019 02:15
Isophorone	U		7.3	190	µg/Kg-dry	1	10/25/2019 02:15
Naphthalene	51		4.8	7.5	µg/Kg-dry	1	10/25/2019 02:15
Nitrobenzene	U		13	190	µg/Kg-dry	1	10/25/2019 02:15
N-Nitrosodi-n-propylamine	U		6.2	37	µg/Kg-dry	1	10/25/2019 02:15
N-Nitrosodiphenylamine	U		3.6	37	µg/Kg-dry	1	10/25/2019 02:15
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/25/2019 02:15
Phenanthrene	200		3.5	7.5	µg/Kg-dry	1	10/25/2019 02:15
Phenol	U		9.3	37	µg/Kg-dry	1	10/25/2019 02:15
Pyrene	140		1.4	7.5	µg/Kg-dry	1	10/25/2019 02:15
Surr: 2,4,6-Tribromophenol	78.2			38-92	%REC	1	10/25/2019 02:15
Surr: 2-Fluorobiphenyl	75.6			44-107	%REC	1	10/25/2019 02:15
Surr: 2-Fluorophenol	79.5			37-109	%REC	1	10/25/2019 02:15
Surr: 4-Terphenyl-d14	67.7			52-123	%REC	1	10/25/2019 02:15
Surr: Nitrobenzene-d5	82.5			41-94	%REC	1	10/25/2019 02:15
Surr: Phenol-d6	78.5			28-111	%REC	1	10/25/2019 02:15
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	9,900		1,900	7,800	µg/Kg-dry	1	10/25/2019 19:48
Surr: Toluene-d8	89.6			70-130	%REC	1	10/25/2019 19:48
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C		Analyst: MF		
1,1,1-Trichloroethane	U		0.86	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,1,2,2-Tetrachloroethane	U		0.69	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,1,2-Trichloroethane	U		0.73	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,1,2-Trichlorotrifluoroethane	U		1.2	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,1-Dichloroethane	U		0.67	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,1-Dichloroethene	U		1.1	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2,3-Trichlorobenzene	U		1.9	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2,4-Trichlorobenzene	U		1.2	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2-Dibromo-3-chloropropane	U		1.1	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2-Dibromoethane	U		0.39	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2-Dichlorobenzene	U		0.76	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2-Dichloroethane	U		0.61	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,2-Dichloropropane	U		0.48	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
1,3-Dichlorobenzene	U		0.66	5.4	µg/Kg-dry	0.916	10/29/2019 22:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-01-03
Collection Date: 10/16/2019 04:53 PM

Work Order: 19101554
Lab ID: 19101554-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.69	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
2-Butanone	U		5.5	11	µg/Kg-dry	0.916	10/29/2019 22:21
2-Hexanone	U		1.9	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
4-Methyl-2-pentanone	U		1.9	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Acetone	38		5.0	11	µg/Kg-dry	0.916	10/29/2019 22:21
Benzene	U		0.56	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Bromochloromethane	U		0.58	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Bromodichloromethane	U		0.65	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Bromoform	U		0.54	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Bromomethane	U		2.7	11	µg/Kg-dry	0.916	10/29/2019 22:21
Carbon disulfide	U		0.64	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Carbon tetrachloride	U		1.1	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Chlorobenzene	U		0.68	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Chloroethane	U		2.1	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Chloroform	U		0.89	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Chloromethane	U		1.1	11	µg/Kg-dry	0.916	10/29/2019 22:21
cis-1,2-Dichloroethene	U		0.58	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
cis-1,3-Dichloropropene	U		0.65	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Cyclohexane	U		1.8	11	µg/Kg-dry	0.916	10/29/2019 22:21
Dibromochloromethane	U		0.55	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Dichlorodifluoromethane	U		2.7	11	µg/Kg-dry	0.916	10/29/2019 22:21
Ethylbenzene	U		0.94	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Isopropylbenzene	U		0.92	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
m,p-Xylene	U		2.4	2.7	µg/Kg-dry	0.916	10/29/2019 22:21
Methyl acetate	U		1.3	11	µg/Kg-dry	0.916	10/29/2019 22:21
Methyl tert-butyl ether	U		0.66	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Methylcyclohexane	U		1.6	11	µg/Kg-dry	0.916	10/29/2019 22:21
Methylene chloride	U		6.7	11	µg/Kg-dry	0.916	10/29/2019 22:21
o-Xylene	U		1.3	2.7	µg/Kg-dry	0.916	10/29/2019 22:21
Styrene	U		0.81	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Tetrachloroethene	U		0.96	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Toluene	U		0.93	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
trans-1,2-Dichloroethene	U		0.54	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
trans-1,3-Dichloropropene	U		0.52	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Trichloroethene	U		0.78	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Trichlorofluoromethane	U		0.77	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Vinyl chloride	U		0.76	5.4	µg/Kg-dry	0.916	10/29/2019 22:21
Surr: 1,2-Dichloroethane-d4	113			83-132	%REC	0.916	10/29/2019 22:21
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.916	10/29/2019 22:21
Surr: Dibromofluoromethane	43.8	S		77-125	%REC	0.916	10/29/2019 22:21

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-01-03
Collection Date: 10/16/2019 04:53 PM

Work Order: 19101554
Lab ID: 19101554-05
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	91.8			86-108	%REC	0.916	10/29/2019 22:21
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	15		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-18-20
Collection Date: 10/16/2019 05:04 PM

Work Order: 19101554
Lab ID: 19101554-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		28	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1221	U		28	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1232	U		28	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1242	U		28	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1248	U		28	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1254	U		23	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1260	U		23	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1262	U		23	82	µg/Kg-dry	1	10/30/2019 04:12
Aroclor 1268	U		23	82	µg/Kg-dry	1	10/30/2019 04:12
Surr: Decachlorobiphenyl	82.9			40-140	%REC	1	10/30/2019 04:12
Surr: Tetrachloro-m-xylene	80.1			45-124	%REC	1	10/30/2019 04:12
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	11		0.052	0.43	mg/Kg-dry	1	10/30/2019 00:15
Barium	88		0.40	0.43	mg/Kg-dry	1	10/30/2019 00:15
Cadmium	U		0.026	0.17	mg/Kg-dry	1	10/30/2019 00:15
Chromium	33		1.9	4.3	mg/Kg-dry	10	10/30/2019 18:30
Lead	14		0.21	0.43	mg/Kg-dry	1	10/30/2019 00:15
Selenium	U		0.40	0.43	mg/Kg-dry	1	10/30/2019 00:15
Silver	U		0.057	0.43	mg/Kg-dry	1	10/30/2019 00:15
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.8	6.1	mg/Kg-dry	1	10/26/2019 11:35
ORO (C21-C35)	U		2.0	6.1	mg/Kg-dry	1	10/26/2019 11:35
Surr: 4-Terphenyl-d14	61.6			25-137	%REC	1	10/26/2019 11:35
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.5	39	µg/Kg-dry	1	10/25/2019 02:37
1,2,4,5-Tetrachlorobenzene	U		31	400	µg/Kg-dry	1	10/25/2019 02:37
1,4-Dioxane	U		29	200	µg/Kg-dry	1	10/25/2019 02:37
2,2'-Oxybis(1-chloropropane)	U		9.3	39	µg/Kg-dry	1	10/25/2019 02:37
2,3,4,6-Tetrachlorophenol	U		10	80	µg/Kg-dry	1	10/25/2019 02:37
2,4,5-Trichlorophenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
2,4,6-Trichlorophenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
2,4-Dichlorophenol	U		8.4	39	µg/Kg-dry	1	10/25/2019 02:37
2,4-Dimethylphenol	U		8.1	39	µg/Kg-dry	1	10/25/2019 02:37
2,4-Dinitrophenol	U		21	39	µg/Kg-dry	1	10/25/2019 02:37
2,4-Dinitrotoluene	U		10	39	µg/Kg-dry	1	10/25/2019 02:37
2,6-Dinitrotoluene	U		6.6	39	µg/Kg-dry	1	10/25/2019 02:37
2-Chloronaphthalene	U		5.6	8.0	µg/Kg-dry	1	10/25/2019 02:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-18-20
Collection Date: 10/16/2019 05:04 PM

Work Order: 19101554
Lab ID: 19101554-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		13	39	µg/Kg-dry	1	10/25/2019 02:37
2-Methylnaphthalene	U		4.0	8.0	µg/Kg-dry	1	10/25/2019 02:37
2-Methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
2-Nitroaniline	U		9.1	39	µg/Kg-dry	1	10/25/2019 02:37
2-Nitrophenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
3&4-Methylphenol	U		8.0	39	µg/Kg-dry	1	10/25/2019 02:37
3,3'-Dichlorobenzidine	U		5.9	200	µg/Kg-dry	1	10/25/2019 02:37
3-Nitroaniline	U		9.1	39	µg/Kg-dry	1	10/25/2019 02:37
4,6-Dinitro-2-methylphenol	U		10	39	µg/Kg-dry	1	10/25/2019 02:37
4-Bromophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
4-Chloro-3-methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
4-Chloroaniline	U		6.3	80	µg/Kg-dry	1	10/25/2019 02:37
4-Chlorophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
4-Nitroaniline	U		62	200	µg/Kg-dry	1	10/25/2019 02:37
4-Nitrophenol	U		36	39	µg/Kg-dry	1	10/25/2019 02:37
Acenaphthene	U		5.7	8.0	µg/Kg-dry	1	10/25/2019 02:37
Acenaphthylene	U		6.9	8.0	µg/Kg-dry	1	10/25/2019 02:37
Acetophenone	U		6.2	39	µg/Kg-dry	1	10/25/2019 02:37
Anthracene	U		5.6	8.0	µg/Kg-dry	1	10/25/2019 02:37
Atrazine	U		6.3	39	µg/Kg-dry	1	10/25/2019 02:37
Benzaldehyde	U		61	80	µg/Kg-dry	1	10/25/2019 02:37
Benzo(a)anthracene	U		6.9	8.0	µg/Kg-dry	1	10/25/2019 02:37
Benzo(a)pyrene	U		4.9	8.0	µg/Kg-dry	1	10/25/2019 02:37
Benzo(b)fluoranthene	U		5.9	8.0	µg/Kg-dry	1	10/25/2019 02:37
Benzo(g,h,i)perylene	U		6.1	8.0	µg/Kg-dry	1	10/25/2019 02:37
Benzo(k)fluoranthene	U		6.0	8.0	µg/Kg-dry	1	10/25/2019 02:37
Bis(2-chloroethoxy)methane	U		3.8	39	µg/Kg-dry	1	10/25/2019 02:37
Bis(2-chloroethyl)ether	U		11	39	µg/Kg-dry	1	10/25/2019 02:37
Bis(2-ethylhexyl)phthalate	U		6.9	39	µg/Kg-dry	1	10/25/2019 02:37
Butyl benzyl phthalate	U		6.7	39	µg/Kg-dry	1	10/25/2019 02:37
Caprolactam	U		14	39	µg/Kg-dry	1	10/25/2019 02:37
Carbazole	U		4.3	39	µg/Kg-dry	1	10/25/2019 02:37
Chrysene	U		6.4	8.0	µg/Kg-dry	1	10/25/2019 02:37
Dibenzo(a,h)anthracene	U		4.3	8.0	µg/Kg-dry	1	10/25/2019 02:37
Dibenzofuran	U		5.8	39	µg/Kg-dry	1	10/25/2019 02:37
Diethyl phthalate	U		6.1	39	µg/Kg-dry	1	10/25/2019 02:37
Dimethyl phthalate	U		7.8	39	µg/Kg-dry	1	10/25/2019 02:37
Di-n-butyl phthalate	U		7.3	39	µg/Kg-dry	1	10/25/2019 02:37
Di-n-octyl phthalate	U		7.6	39	µg/Kg-dry	1	10/25/2019 02:37
Fluoranthene	U		3.8	8.0	µg/Kg-dry	1	10/25/2019 02:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-18-20
Collection Date: 10/16/2019 05:04 PM

Work Order: 19101554
Lab ID: 19101554-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.8	8.0	µg/Kg-dry	1	10/25/2019 02:37
Hexachlorobenzene	U		12	39	µg/Kg-dry	1	10/25/2019 02:37
Hexachlorobutadiene	U		22	39	µg/Kg-dry	1	10/25/2019 02:37
Hexachlorocyclopentadiene	U		14	39	µg/Kg-dry	1	10/25/2019 02:37
Hexachloroethane	U		16	39	µg/Kg-dry	1	10/25/2019 02:37
Indeno(1,2,3-cd)pyrene	U		5.5	8.0	µg/Kg-dry	1	10/25/2019 02:37
Isophorone	U		7.8	200	µg/Kg-dry	1	10/25/2019 02:37
Naphthalene	U		5.1	8.0	µg/Kg-dry	1	10/25/2019 02:37
Nitrobenzene	U		13	200	µg/Kg-dry	1	10/25/2019 02:37
N-Nitrosodi-n-propylamine	U		6.6	39	µg/Kg-dry	1	10/25/2019 02:37
N-Nitrosodiphenylamine	U		3.8	39	µg/Kg-dry	1	10/25/2019 02:37
Pentachlorophenol	U		15	39	µg/Kg-dry	1	10/25/2019 02:37
Phenanthrene	U		3.7	8.0	µg/Kg-dry	1	10/25/2019 02:37
Phenol	U		9.9	39	µg/Kg-dry	1	10/25/2019 02:37
Pyrene	U		1.4	8.0	µg/Kg-dry	1	10/25/2019 02:37
Surr: 2,4,6-Tribromophenol	64.1			38-92	%REC	1	10/25/2019 02:37
Surr: 2-Fluorobiphenyl	73.3			44-107	%REC	1	10/25/2019 02:37
Surr: 2-Fluorophenol	75.9			37-109	%REC	1	10/25/2019 02:37
Surr: 4-Terphenyl-d14	63.3			52-123	%REC	1	10/25/2019 02:37
Surr: Nitrobenzene-d5	82.8			41-94	%REC	1	10/25/2019 02:37
Surr: Phenol-d6	77.2			28-111	%REC	1	10/25/2019 02:37
GASOLINE RANGE ORGANICS BY GC-MS				Method: SW8260GRO		Prep: SW5035 / 10/21/19	
GRO (C6-C10)	2,400	J	1,600	6,500	µg/Kg-dry	1	10/25/2019 20:05
Surr: Toluene-d8	86.8			70-130	%REC	1	10/25/2019 20:05
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL				Method: SW8260C		Analyst: MF	
1,1,1-Trichloroethane	U		0.89	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,1,2,2-Tetrachloroethane	U		0.72	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,1,2-Trichloroethane	U		0.76	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,1,2-Trichlorotrifluoroethane	U		1.2	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,1-Dichloroethane	U		0.70	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,1-Dichloroethene	U		1.1	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2,3-Trichlorobenzene	U		2.0	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2,4-Trichlorobenzene	U		1.2	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2-Dibromo-3-chloropropane	U		1.1	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2-Dibromoethane	U		0.41	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2-Dichlorobenzene	U		0.79	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2-Dichloroethane	U		0.63	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,2-Dichloropropane	U		0.50	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
1,3-Dichlorobenzene	U		0.69	5.7	µg/Kg-dry	0.912	10/27/2019 20:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-18-20
Collection Date: 10/16/2019 05:04 PM

Work Order: 19101554
Lab ID: 19101554-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.72	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
2-Butanone	U		5.8	11	µg/Kg-dry	0.912	10/27/2019 20:39
2-Hexanone	U		2.0	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
4-Methyl-2-pentanone	U		2.0	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Acetone	6.2	J	5.2	11	µg/Kg-dry	0.912	10/27/2019 20:39
Benzene	U		0.59	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Bromochloromethane	U		0.61	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Bromodichloromethane	U		0.68	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Bromoform	U		0.57	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Bromomethane	U		2.8	11	µg/Kg-dry	0.912	10/27/2019 20:39
Carbon disulfide	U		0.67	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Carbon tetrachloride	U		1.1	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Chlorobenzene	U		0.71	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Chloroethane	U		2.2	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Chloroform	U		0.93	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Chloromethane	U		1.1	11	µg/Kg-dry	0.912	10/27/2019 20:39
cis-1,2-Dichloroethene	U		0.61	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
cis-1,3-Dichloropropene	U		0.68	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Cyclohexane	U		1.9	11	µg/Kg-dry	0.912	10/27/2019 20:39
Dibromochloromethane	U		0.58	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Dichlorodifluoromethane	U		2.8	11	µg/Kg-dry	0.912	10/27/2019 20:39
Ethylbenzene	U		0.99	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Isopropylbenzene	U		0.96	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
m,p-Xylene	U		2.5	2.8	µg/Kg-dry	0.912	10/27/2019 20:39
Methyl acetate	U		1.4	11	µg/Kg-dry	0.912	10/27/2019 20:39
Methyl tert-butyl ether	U		0.69	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Methylcyclohexane	U		1.7	11	µg/Kg-dry	0.912	10/27/2019 20:39
Methylene chloride	U		7.0	11	µg/Kg-dry	0.912	10/27/2019 20:39
o-Xylene	U		1.4	2.8	µg/Kg-dry	0.912	10/27/2019 20:39
Styrene	U		0.85	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Tetrachloroethene	U		1.0	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Toluene	U		0.97	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
trans-1,2-Dichloroethene	U		0.57	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
trans-1,3-Dichloropropene	U		0.54	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Trichloroethene	U		0.82	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Trichlorofluoromethane	U		0.80	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Vinyl chloride	U		0.79	5.7	µg/Kg-dry	0.912	10/27/2019 20:39
Surr: 1,2-Dichloroethane-d4	105			83-132	%REC	0.912	10/27/2019 20:39
Surr: 4-Bromofluorobenzene	107			83-111	%REC	0.912	10/27/2019 20:39
Surr: Dibromofluoromethane	53.6	S		77-125	%REC	0.912	10/27/2019 20:39

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB03-18-20
Collection Date: 10/16/2019 05:04 PM

Work Order: 19101554
Lab ID: 19101554-06
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	95.6			86-108	%REC	0.912	10/27/2019 20:39
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	19		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03
Collection Date: 10/17/2019 08:22 AM

Work Order: 19101554
Lab ID: 19101554-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		27	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1221	U		27	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1232	U		27	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1242	U		27	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1248	U		27	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1254	U		22	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1260	U		22	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1262	U		22	78	µg/Kg-dry	1	10/30/2019 04:26
Aroclor 1268	U		22	78	µg/Kg-dry	1	10/30/2019 04:26
Surr: Decachlorobiphenyl	73.1			40-140	%REC	1	10/30/2019 04:26
Surr: Tetrachloro-m-xylene	70.0			45-124	%REC	1	10/30/2019 04:26
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	12		0.048	0.40	mg/Kg-dry	1	10/30/2019 00:17
Barium	160		3.6	4.0	mg/Kg-dry	10	10/30/2019 18:31
Cadmium	0.13	J	0.024	0.16	mg/Kg-dry	1	10/30/2019 00:17
Chromium	33		1.7	4.0	mg/Kg-dry	10	10/30/2019 18:31
Lead	210		1.9	4.0	mg/Kg-dry	10	10/30/2019 18:31
Selenium	0.39	J	0.36	0.40	mg/Kg-dry	1	10/30/2019 00:17
Silver	0.16	J	0.052	0.40	mg/Kg-dry	1	10/30/2019 00:17
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.8	5.8	mg/Kg-dry	1	10/26/2019 11:56
ORO (C21-C35)	U		2.0	5.8	mg/Kg-dry	1	10/26/2019 11:56
Surr: 4-Terphenyl-d14	66.3			25-137	%REC	1	10/26/2019 11:56
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.3	39	µg/Kg-dry	1	10/25/2019 02:58
1,2,4,5-Tetrachlorobenzene	U		30	390	µg/Kg-dry	1	10/25/2019 02:58
1,4-Dioxane	U		28	200	µg/Kg-dry	1	10/25/2019 02:58
2,2'-Oxybis(1-chloropropane)	U		9.2	39	µg/Kg-dry	1	10/25/2019 02:58
2,3,4,6-Tetrachlorophenol	U		10	79	µg/Kg-dry	1	10/25/2019 02:58
2,4,5-Trichlorophenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
2,4,6-Trichlorophenol	U		10	39	µg/Kg-dry	1	10/25/2019 02:58
2,4-Dichlorophenol	U		8.2	39	µg/Kg-dry	1	10/25/2019 02:58
2,4-Dimethylphenol	U		8.0	39	µg/Kg-dry	1	10/25/2019 02:58
2,4-Dinitrophenol	U		21	39	µg/Kg-dry	1	10/25/2019 02:58
2,4-Dinitrotoluene	U		10	39	µg/Kg-dry	1	10/25/2019 02:58
2,6-Dinitrotoluene	U		6.4	39	µg/Kg-dry	1	10/25/2019 02:58
2-Chloronaphthalene	U		5.5	7.8	µg/Kg-dry	1	10/25/2019 02:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03
Collection Date: 10/17/2019 08:22 AM

Work Order: 19101554
Lab ID: 19101554-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	39	µg/Kg-dry	1	10/25/2019 02:58
2-Methylnaphthalene	21		4.0	7.8	µg/Kg-dry	1	10/25/2019 02:58
2-Methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
2-Nitroaniline	U		9.0	39	µg/Kg-dry	1	10/25/2019 02:58
2-Nitrophenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
3&4-Methylphenol	U		7.9	39	µg/Kg-dry	1	10/25/2019 02:58
3,3'-Dichlorobenzidine	U		5.8	200	µg/Kg-dry	1	10/25/2019 02:58
3-Nitroaniline	U		9.0	39	µg/Kg-dry	1	10/25/2019 02:58
4,6-Dinitro-2-methylphenol	U		9.8	39	µg/Kg-dry	1	10/25/2019 02:58
4-Bromophenyl phenyl ether	U		10	39	µg/Kg-dry	1	10/25/2019 02:58
4-Chloro-3-methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
4-Chloroaniline	U		6.2	79	µg/Kg-dry	1	10/25/2019 02:58
4-Chlorophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
4-Nitroaniline	U		61	200	µg/Kg-dry	1	10/25/2019 02:58
4-Nitrophenol	U		35	39	µg/Kg-dry	1	10/25/2019 02:58
Acenaphthene	U		5.7	7.8	µg/Kg-dry	1	10/25/2019 02:58
Acenaphthylene	14		6.8	7.8	µg/Kg-dry	1	10/25/2019 02:58
Acetophenone	U		6.1	39	µg/Kg-dry	1	10/25/2019 02:58
Anthracene	16		5.5	7.8	µg/Kg-dry	1	10/25/2019 02:58
Atrazine	U		6.2	39	µg/Kg-dry	1	10/25/2019 02:58
Benzaldehyde	U		60	79	µg/Kg-dry	1	10/25/2019 02:58
Benzo(a)anthracene	66		6.8	7.8	µg/Kg-dry	1	10/25/2019 02:58
Benzo(a)pyrene	66		4.8	7.8	µg/Kg-dry	1	10/25/2019 02:58
Benzo(b)fluoranthene	94		5.8	7.8	µg/Kg-dry	1	10/25/2019 02:58
Benzo(g,h,i)perylene	54		6.0	7.8	µg/Kg-dry	1	10/25/2019 02:58
Benzo(k)fluoranthene	39		5.9	7.8	µg/Kg-dry	1	10/25/2019 02:58
Bis(2-chloroethoxy)methane	U		3.8	39	µg/Kg-dry	1	10/25/2019 02:58
Bis(2-chloroethyl)ether	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
Bis(2-ethylhexyl)phthalate	U		6.8	39	µg/Kg-dry	1	10/25/2019 02:58
Butyl benzyl phthalate	U		6.6	39	µg/Kg-dry	1	10/25/2019 02:58
Caprolactam	U		13	39	µg/Kg-dry	1	10/25/2019 02:58
Carbazole	U		4.2	39	µg/Kg-dry	1	10/25/2019 02:58
Chrysene	62		6.3	7.8	µg/Kg-dry	1	10/25/2019 02:58
Dibenzo(a,h)anthracene	15		4.2	7.8	µg/Kg-dry	1	10/25/2019 02:58
Dibenzofuran	U		5.7	39	µg/Kg-dry	1	10/25/2019 02:58
Diethyl phthalate	U		6.0	39	µg/Kg-dry	1	10/25/2019 02:58
Dimethyl phthalate	U		7.6	39	µg/Kg-dry	1	10/25/2019 02:58
Di-n-butyl phthalate	U		7.2	39	µg/Kg-dry	1	10/25/2019 02:58
Di-n-octyl phthalate	U		7.5	39	µg/Kg-dry	1	10/25/2019 02:58
Fluoranthene	130		3.8	7.8	µg/Kg-dry	1	10/25/2019 02:58

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03
Collection Date: 10/17/2019 08:22 AM

Work Order: 19101554
Lab ID: 19101554-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.7	7.8	µg/Kg-dry	1	10/25/2019 02:58
Hexachlorobenzene	U		11	39	µg/Kg-dry	1	10/25/2019 02:58
Hexachlorobutadiene	U		21	39	µg/Kg-dry	1	10/25/2019 02:58
Hexachlorocyclopentadiene	U		13	39	µg/Kg-dry	1	10/25/2019 02:58
Hexachloroethane	U		16	39	µg/Kg-dry	1	10/25/2019 02:58
Indeno(1,2,3-cd)pyrene	48		5.4	7.8	µg/Kg-dry	1	10/25/2019 02:58
Isophorone	U		7.6	200	µg/Kg-dry	1	10/25/2019 02:58
Naphthalene	11		5.0	7.8	µg/Kg-dry	1	10/25/2019 02:58
Nitrobenzene	U		13	200	µg/Kg-dry	1	10/25/2019 02:58
N-Nitrosodi-n-propylamine	U		6.4	39	µg/Kg-dry	1	10/25/2019 02:58
N-Nitrosodiphenylamine	U		3.8	39	µg/Kg-dry	1	10/25/2019 02:58
Pentachlorophenol	U		14	39	µg/Kg-dry	1	10/25/2019 02:58
Phenanthrene	95		3.6	7.8	µg/Kg-dry	1	10/25/2019 02:58
Phenol	U		9.7	39	µg/Kg-dry	1	10/25/2019 02:58
Pyrene	110		1.4	7.8	µg/Kg-dry	1	10/25/2019 02:58
Surr: 2,4,6-Tribromophenol	71.7			38-92	%REC	1	10/25/2019 02:58
Surr: 2-Fluorobiphenyl	73.5			44-107	%REC	1	10/25/2019 02:58
Surr: 2-Fluorophenol	75.3			37-109	%REC	1	10/25/2019 02:58
Surr: 4-Terphenyl-d14	65.5			52-123	%REC	1	10/25/2019 02:58
Surr: Nitrobenzene-d5	82.6			41-94	%REC	1	10/25/2019 02:58
Surr: Phenol-d6	76.9			28-111	%REC	1	10/25/2019 02:58
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,500	5,900	µg/Kg-dry	1	10/25/2019 20:23
Surr: Toluene-d8	87.3			70-130	%REC	1	10/25/2019 20:23
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C		Analyst: MF		
1,1,1-Trichloroethane	U		0.80	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,1,2,2-Tetrachloroethane	U		0.65	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,1,2-Trichloroethane	U		0.68	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,1,2-Trichlorotrifluoroethane	U		1.1	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,1-Dichloroethane	U		0.63	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,1-Dichloroethene	U		0.99	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2,3-Trichlorobenzene	U		1.8	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2,4-Trichlorobenzene	U		1.1	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2-Dibromo-3-chloropropane	U		1.0	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2-Dibromoethane	U		0.37	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2-Dichlorobenzene	U		0.71	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2-Dichloroethane	U		0.57	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,2-Dichloropropane	U		0.45	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
1,3-Dichlorobenzene	U		0.62	5.1	µg/Kg-dry	0.859	10/27/2019 20:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03
Collection Date: 10/17/2019 08:22 AM

Work Order: 19101554
Lab ID: 19101554-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.65	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
2-Butanone	5.6	J	5.2	10	µg/Kg-dry	0.859	10/27/2019 20:56
2-Hexanone	U		1.8	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
4-Methyl-2-pentanone	U		1.8	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Acetone	38		4.7	10	µg/Kg-dry	0.859	10/27/2019 20:56
Benzene	U		0.53	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Bromochloromethane	U		0.55	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Bromodichloromethane	U		0.61	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Bromoform	U		0.51	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Bromomethane	U		2.5	10	µg/Kg-dry	0.859	10/27/2019 20:56
Carbon disulfide	U		0.60	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Carbon tetrachloride	U		1.0	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Chlorobenzene	U		0.64	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Chloroethane	U		1.9	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Chloroform	U		0.83	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Chloromethane	U		1.0	10	µg/Kg-dry	0.859	10/27/2019 20:56
cis-1,2-Dichloroethene	U		0.55	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
cis-1,3-Dichloropropene	U		0.61	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Cyclohexane	U		1.7	10	µg/Kg-dry	0.859	10/27/2019 20:56
Dibromochloromethane	U		0.52	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Dichlorodifluoromethane	U		2.5	10	µg/Kg-dry	0.859	10/27/2019 20:56
Ethylbenzene	U		0.88	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Isopropylbenzene	U		0.86	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
m,p-Xylene	U		2.2	2.5	µg/Kg-dry	0.859	10/27/2019 20:56
Methyl acetate	U		1.2	10	µg/Kg-dry	0.859	10/27/2019 20:56
Methyl tert-butyl ether	U		0.62	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Methylcyclohexane	U		1.5	10	µg/Kg-dry	0.859	10/27/2019 20:56
Methylene chloride	U		6.3	10	µg/Kg-dry	0.859	10/27/2019 20:56
o-Xylene	U		1.2	2.5	µg/Kg-dry	0.859	10/27/2019 20:56
Styrene	U		0.76	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Tetrachloroethene	U		0.90	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Toluene	U		0.87	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
trans-1,2-Dichloroethene	U		0.51	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
trans-1,3-Dichloropropene	U		0.49	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Trichloroethene	U		0.73	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Trichlorofluoromethane	U		0.72	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Vinyl chloride	U		0.71	5.1	µg/Kg-dry	0.859	10/27/2019 20:56
Surr: 1,2-Dichloroethane-d4	109			83-132	%REC	0.859	10/27/2019 20:56
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.859	10/27/2019 20:56
Surr: Dibromofluoromethane	46.6	S		77-125	%REC	0.859	10/27/2019 20:56

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03
Collection Date: 10/17/2019 08:22 AM

Work Order: 19101554
Lab ID: 19101554-07
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	95.8			86-108	%REC	0.859	10/27/2019 20:56
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	15		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-23-25
Collection Date: 10/17/2019 09:00 AM

Work Order: 19101554
Lab ID: 19101554-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		27	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1221	U		27	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1232	U		27	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1242	U		27	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1248	U		27	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1254	U		22	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1260	U		22	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1262	U		22	79	µg/Kg-dry	1	10/30/2019 04:41
Aroclor 1268	U		22	79	µg/Kg-dry	1	10/30/2019 04:41
Surr: Decachlorobiphenyl	71.3			40-140	%REC	1	10/30/2019 04:41
Surr: Tetrachloro-m-xylene	83.3			45-124	%REC	1	10/30/2019 04:41
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	20		0.056	0.47	mg/Kg-dry	1	10/30/2019 00:18
Barium	40		0.43	0.47	mg/Kg-dry	1	10/30/2019 00:18
Cadmium	U		0.028	0.19	mg/Kg-dry	1	10/30/2019 00:18
Chromium	10		0.21	0.47	mg/Kg-dry	1	10/30/2019 00:18
Lead	26		0.22	0.47	mg/Kg-dry	1	10/30/2019 00:18
Selenium	U		0.43	0.47	mg/Kg-dry	1	10/30/2019 00:18
Silver	U		0.062	0.47	mg/Kg-dry	1	10/30/2019 00:18
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.7	mg/Kg-dry	1	10/26/2019 12:16
ORO (C21-C35)	U		1.9	5.7	mg/Kg-dry	1	10/26/2019 12:16
Surr: 4-Terphenyl-d14	60.4			25-137	%REC	1	10/26/2019 12:16
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		9.3	57	µg/Kg-dry	1	10/25/2019 03:19
1,2,4,5-Tetrachlorobenzene	U		44	570	µg/Kg-dry	1	10/25/2019 03:19
1,4-Dioxane	U		41	290	µg/Kg-dry	1	10/25/2019 03:19
2,2'-Oxybis(1-chloropropane)	U		13	57	µg/Kg-dry	1	10/25/2019 03:19
2,3,4,6-Tetrachlorophenol	U		15	110	µg/Kg-dry	1	10/25/2019 03:19
2,4,5-Trichlorophenol	U		16	57	µg/Kg-dry	1	10/25/2019 03:19
2,4,6-Trichlorophenol	U		15	57	µg/Kg-dry	1	10/25/2019 03:19
2,4-Dichlorophenol	U		12	57	µg/Kg-dry	1	10/25/2019 03:19
2,4-Dimethylphenol	U		12	57	µg/Kg-dry	1	10/25/2019 03:19
2,4-Dinitrophenol	U		31	57	µg/Kg-dry	1	10/25/2019 03:19
2,4-Dinitrotoluene	U		15	57	µg/Kg-dry	1	10/25/2019 03:19
2,6-Dinitrotoluene	U		9.4	57	µg/Kg-dry	1	10/25/2019 03:19
2-Chloronaphthalene	U		8.0	11	µg/Kg-dry	1	10/25/2019 03:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-23-25
Collection Date: 10/17/2019 09:00 AM

Work Order: 19101554
Lab ID: 19101554-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		18	57	µg/Kg-dry	1	10/25/2019 03:19
2-Methylnaphthalene	U		5.8	11	µg/Kg-dry	1	10/25/2019 03:19
2-Methylphenol	U		15	57	µg/Kg-dry	1	10/25/2019 03:19
2-Nitroaniline	U		13	57	µg/Kg-dry	1	10/25/2019 03:19
2-Nitrophenol	U		16	57	µg/Kg-dry	1	10/25/2019 03:19
3&4-Methylphenol	U		11	57	µg/Kg-dry	1	10/25/2019 03:19
3,3'-Dichlorobenzidine	U		8.5	290	µg/Kg-dry	1	10/25/2019 03:19
3-Nitroaniline	U		13	57	µg/Kg-dry	1	10/25/2019 03:19
4,6-Dinitro-2-methylphenol	U		14	57	µg/Kg-dry	1	10/25/2019 03:19
4-Bromophenyl phenyl ether	U		15	57	µg/Kg-dry	1	10/25/2019 03:19
4-Chloro-3-methylphenol	U		16	57	µg/Kg-dry	1	10/25/2019 03:19
4-Chloroaniline	U		9.0	110	µg/Kg-dry	1	10/25/2019 03:19
4-Chlorophenyl phenyl ether	U		16	57	µg/Kg-dry	1	10/25/2019 03:19
4-Nitroaniline	U		89	290	µg/Kg-dry	1	10/25/2019 03:19
4-Nitrophenol	U		51	57	µg/Kg-dry	1	10/25/2019 03:19
Acenaphthene	U		8.3	11	µg/Kg-dry	1	10/25/2019 03:19
Acenaphthylene	U		9.9	11	µg/Kg-dry	1	10/25/2019 03:19
Acetophenone	U		9.0	57	µg/Kg-dry	1	10/25/2019 03:19
Anthracene	U		8.1	11	µg/Kg-dry	1	10/25/2019 03:19
Atrazine	U		9.0	57	µg/Kg-dry	1	10/25/2019 03:19
Benzaldehyde	U		88	110	µg/Kg-dry	1	10/25/2019 03:19
Benzo(a)anthracene	U		9.9	11	µg/Kg-dry	1	10/25/2019 03:19
Benzo(a)pyrene	U		7.0	11	µg/Kg-dry	1	10/25/2019 03:19
Benzo(b)fluoranthene	U		8.5	11	µg/Kg-dry	1	10/25/2019 03:19
Benzo(g,h,i)perylene	U		8.8	11	µg/Kg-dry	1	10/25/2019 03:19
Benzo(k)fluoranthene	U		8.7	11	µg/Kg-dry	1	10/25/2019 03:19
Bis(2-chloroethoxy)methane	U		5.5	57	µg/Kg-dry	1	10/25/2019 03:19
Bis(2-chloroethyl)ether	U		16	57	µg/Kg-dry	1	10/25/2019 03:19
Bis(2-ethylhexyl)phthalate	U		9.9	57	µg/Kg-dry	1	10/25/2019 03:19
Butyl benzyl phthalate	U		9.7	57	µg/Kg-dry	1	10/25/2019 03:19
Caprolactam	U		20	57	µg/Kg-dry	1	10/25/2019 03:19
Carbazole	U		6.2	57	µg/Kg-dry	1	10/25/2019 03:19
Chrysene	U		9.2	11	µg/Kg-dry	1	10/25/2019 03:19
Dibenzo(a,h)anthracene	U		6.2	11	µg/Kg-dry	1	10/25/2019 03:19
Dibenzofuran	U		8.4	57	µg/Kg-dry	1	10/25/2019 03:19
Diethyl phthalate	U		8.7	57	µg/Kg-dry	1	10/25/2019 03:19
Dimethyl phthalate	U		11	57	µg/Kg-dry	1	10/25/2019 03:19
Di-n-butyl phthalate	U		10	57	µg/Kg-dry	1	10/25/2019 03:19
Di-n-octyl phthalate	U		11	57	µg/Kg-dry	1	10/25/2019 03:19
Fluoranthene	U		5.5	11	µg/Kg-dry	1	10/25/2019 03:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-23-25
Collection Date: 10/17/2019 09:00 AM

Work Order: 19101554
Lab ID: 19101554-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		8.3	11	µg/Kg-dry	1	10/25/2019 03:19
Hexachlorobenzene	U		17	57	µg/Kg-dry	1	10/25/2019 03:19
Hexachlorobutadiene	U		31	57	µg/Kg-dry	1	10/25/2019 03:19
Hexachlorocyclopentadiene	U		20	57	µg/Kg-dry	1	10/25/2019 03:19
Hexachloroethane	U		24	57	µg/Kg-dry	1	10/25/2019 03:19
Indeno(1,2,3-cd)pyrene	U		8.0	11	µg/Kg-dry	1	10/25/2019 03:19
Isophorone	U		11	290	µg/Kg-dry	1	10/25/2019 03:19
Naphthalene	U		7.3	11	µg/Kg-dry	1	10/25/2019 03:19
Nitrobenzene	U		19	290	µg/Kg-dry	1	10/25/2019 03:19
N-Nitrosodi-n-propylamine	U		9.4	57	µg/Kg-dry	1	10/25/2019 03:19
N-Nitrosodiphenylamine	U		5.5	57	µg/Kg-dry	1	10/25/2019 03:19
Pentachlorophenol	U		21	57	µg/Kg-dry	1	10/25/2019 03:19
Phenanthrene	U		5.3	11	µg/Kg-dry	1	10/25/2019 03:19
Phenol	U		14	57	µg/Kg-dry	1	10/25/2019 03:19
Pyrene	U		2.1	11	µg/Kg-dry	1	10/25/2019 03:19
Surr: 2,4,6-Tribromophenol	71.6			38-92	%REC	1	10/25/2019 03:19
Surr: 2-Fluorobiphenyl	72.2			44-107	%REC	1	10/25/2019 03:19
Surr: 2-Fluorophenol	83.5			37-109	%REC	1	10/25/2019 03:19
Surr: 4-Terphenyl-d14	67.8			52-123	%REC	1	10/25/2019 03:19
Surr: Nitrobenzene-d5	80.7			41-94	%REC	1	10/25/2019 03:19
Surr: Phenol-d6	83.6			28-111	%REC	1	10/25/2019 03:19
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,700	6,800	µg/Kg-dry	1	10/25/2019 20:40
Surr: Toluene-d8	86.0			70-130	%REC	1	10/25/2019 20:40
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C		Analyst: MF		
1,1,1-Trichloroethane	U		0.77	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,1,2,2-Tetrachloroethane	U		0.62	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,1,2-Trichloroethane	U		0.65	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,1,2-Trichlorotrifluoroethane	U		1.1	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,1-Dichloroethane	U		0.60	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,1-Dichloroethene	U		0.95	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2,3-Trichlorobenzene	U		1.7	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2,4-Trichlorobenzene	U		1.1	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2-Dibromo-3-chloropropane	U		0.96	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2-Dibromoethane	U		0.35	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2-Dichlorobenzene	U		0.68	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2-Dichloroethane	U		0.54	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,2-Dichloropropane	U		0.43	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
1,3-Dichlorobenzene	U		0.59	4.9	µg/Kg-dry	0.794	10/27/2019 21:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-23-25
Collection Date: 10/17/2019 09:00 AM

Work Order: 19101554
Lab ID: 19101554-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.62	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
2-Butanone	U		5.0	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
2-Hexanone	U		1.7	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
4-Methyl-2-pentanone	U		1.7	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Acetone	5.1	J	4.5	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Benzene	U		0.50	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Bromochloromethane	U		0.52	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Bromodichloromethane	U		0.58	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Bromoform	U		0.49	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Bromomethane	U		2.4	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Carbon disulfide	U		0.57	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Carbon tetrachloride	U		0.97	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Chlorobenzene	U		0.61	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Chloroethane	U		1.8	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Chloroform	U		0.80	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Chloromethane	U		0.97	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
cis-1,2-Dichloroethene	U		0.52	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
cis-1,3-Dichloropropene	U		0.58	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Cyclohexane	U		1.7	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Dibromochloromethane	U		0.50	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Dichlorodifluoromethane	U		2.4	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Ethylbenzene	U		0.84	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Isopropylbenzene	U		0.83	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.794	10/27/2019 21:13
Methyl acetate	U		1.2	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Methyl tert-butyl ether	U		0.59	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Methylcyclohexane	U		1.4	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
Methylene chloride	U		6.0	9.7	µg/Kg-dry	0.794	10/27/2019 21:13
o-Xylene	U		1.2	2.4	µg/Kg-dry	0.794	10/27/2019 21:13
Styrene	U		0.73	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Tetrachloroethene	U		0.86	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Toluene	U		0.83	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
trans-1,2-Dichloroethene	U		0.49	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
trans-1,3-Dichloropropene	U		0.47	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Trichloroethene	U		0.70	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Trichlorofluoromethane	U		0.69	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Vinyl chloride	U		0.68	4.9	µg/Kg-dry	0.794	10/27/2019 21:13
Surr: 1,2-Dichloroethane-d4	110			83-132	%REC	0.794	10/27/2019 21:13
Surr: 4-Bromofluorobenzene	106			83-111	%REC	0.794	10/27/2019 21:13
Surr: Dibromofluoromethane	34.8	S		77-125	%REC	0.794	10/27/2019 21:13

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-23-25
Collection Date: 10/17/2019 09:00 AM

Work Order: 19101554
Lab ID: 19101554-08
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	99.3			86-108	%REC	0.794	10/27/2019 21:13
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	18		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03D
Collection Date: 10/17/2019 09:10 AM

Work Order: 19101554
Lab ID: 19101554-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		26	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1221	U		26	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1232	U		26	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1242	U		26	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1248	U		26	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1254	U		21	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1260	U		21	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1262	U		21	77	µg/Kg-dry	1	10/30/2019 04:55
Aroclor 1268	U		21	77	µg/Kg-dry	1	10/30/2019 04:55
Surr: Decachlorobiphenyl	77.8			40-140	%REC	1	10/30/2019 04:55
Surr: Tetrachloro-m-xylene	73.5			45-124	%REC	1	10/30/2019 04:55
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	11		0.056	0.46	mg/Kg-dry	1	10/30/2019 00:23
Barium	130		0.43	0.46	mg/Kg-dry	1	10/30/2019 00:23
Cadmium	0.081	J	0.028	0.19	mg/Kg-dry	1	10/30/2019 00:23
Chromium	32		2.0	4.6	mg/Kg-dry	10	10/30/2019 18:33
Lead	81		0.22	0.46	mg/Kg-dry	1	10/30/2019 00:23
Selenium	U		0.43	0.46	mg/Kg-dry	1	10/30/2019 00:23
Silver	0.079	J	0.061	0.46	mg/Kg-dry	1	10/30/2019 00:23
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.8	mg/Kg-dry	1	10/26/2019 12:36
ORO (C21-C35)	U		1.9	5.8	mg/Kg-dry	1	10/26/2019 12:36
Surr: 4-Terphenyl-d14	64.6			25-137	%REC	1	10/26/2019 12:36
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.3	38	µg/Kg-dry	1	10/25/2019 03:40
1,2,4,5-Tetrachlorobenzene	U		30	390	µg/Kg-dry	1	10/25/2019 03:40
1,4-Dioxane	U		28	190	µg/Kg-dry	1	10/25/2019 03:40
2,2'-Oxybis(1-chloropropane)	U		9.0	38	µg/Kg-dry	1	10/25/2019 03:40
2,3,4,6-Tetrachlorophenol	U		10	77	µg/Kg-dry	1	10/25/2019 03:40
2,4,5-Trichlorophenol	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
2,4,6-Trichlorophenol	U		10	38	µg/Kg-dry	1	10/25/2019 03:40
2,4-Dichlorophenol	U		8.1	38	µg/Kg-dry	1	10/25/2019 03:40
2,4-Dimethylphenol	U		7.9	38	µg/Kg-dry	1	10/25/2019 03:40
2,4-Dinitrophenol	U		21	38	µg/Kg-dry	1	10/25/2019 03:40
2,4-Dinitrotoluene	U		10	38	µg/Kg-dry	1	10/25/2019 03:40
2,6-Dinitrotoluene	U		6.4	38	µg/Kg-dry	1	10/25/2019 03:40
2-Chloronaphthalene	U		5.4	7.7	µg/Kg-dry	1	10/25/2019 03:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03D
Collection Date: 10/17/2019 09:10 AM

Work Order: 19101554
Lab ID: 19101554-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	38	µg/Kg-dry	1	10/25/2019 03:40
2-Methylnaphthalene	15		3.9	7.7	µg/Kg-dry	1	10/25/2019 03:40
2-Methylphenol	U		10	38	µg/Kg-dry	1	10/25/2019 03:40
2-Nitroaniline	U		8.8	38	µg/Kg-dry	1	10/25/2019 03:40
2-Nitrophenol	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
3&4-Methylphenol	U		7.7	38	µg/Kg-dry	1	10/25/2019 03:40
3,3'-Dichlorobenzidine	U		5.7	190	µg/Kg-dry	1	10/25/2019 03:40
3-Nitroaniline	U		8.8	38	µg/Kg-dry	1	10/25/2019 03:40
4,6-Dinitro-2-methylphenol	U		9.7	38	µg/Kg-dry	1	10/25/2019 03:40
4-Bromophenyl phenyl ether	U		10	38	µg/Kg-dry	1	10/25/2019 03:40
4-Chloro-3-methylphenol	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
4-Chloroaniline	U		6.1	77	µg/Kg-dry	1	10/25/2019 03:40
4-Chlorophenyl phenyl ether	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
4-Nitroaniline	U		60	190	µg/Kg-dry	1	10/25/2019 03:40
4-Nitrophenol	U		34	38	µg/Kg-dry	1	10/25/2019 03:40
Acenaphthene	U		5.6	7.7	µg/Kg-dry	1	10/25/2019 03:40
Acenaphthylene	U		6.7	7.7	µg/Kg-dry	1	10/25/2019 03:40
Acetophenone	U		6.0	38	µg/Kg-dry	1	10/25/2019 03:40
Anthracene	U		5.4	7.7	µg/Kg-dry	1	10/25/2019 03:40
Atrazine	U		6.1	38	µg/Kg-dry	1	10/25/2019 03:40
Benzaldehyde	U		59	77	µg/Kg-dry	1	10/25/2019 03:40
Benzo(a)anthracene	31		6.7	7.7	µg/Kg-dry	1	10/25/2019 03:40
Benzo(a)pyrene	34		4.7	7.7	µg/Kg-dry	1	10/25/2019 03:40
Benzo(b)fluoranthene	46		5.7	7.7	µg/Kg-dry	1	10/25/2019 03:40
Benzo(g,h,i)perylene	34		5.9	7.7	µg/Kg-dry	1	10/25/2019 03:40
Benzo(k)fluoranthene	24		5.8	7.7	µg/Kg-dry	1	10/25/2019 03:40
Bis(2-chloroethoxy)methane	U		3.7	38	µg/Kg-dry	1	10/25/2019 03:40
Bis(2-chloroethyl)ether	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
Bis(2-ethylhexyl)phthalate	U		6.7	38	µg/Kg-dry	1	10/25/2019 03:40
Butyl benzyl phthalate	U		6.5	38	µg/Kg-dry	1	10/25/2019 03:40
Caprolactam	U		13	38	µg/Kg-dry	1	10/25/2019 03:40
Carbazole	U		4.2	38	µg/Kg-dry	1	10/25/2019 03:40
Chrysene	29		6.2	7.7	µg/Kg-dry	1	10/25/2019 03:40
Dibenzo(a,h)anthracene	14		4.2	7.7	µg/Kg-dry	1	10/25/2019 03:40
Dibenzofuran	U		5.7	38	µg/Kg-dry	1	10/25/2019 03:40
Diethyl phthalate	U		5.9	38	µg/Kg-dry	1	10/25/2019 03:40
Dimethyl phthalate	U		7.5	38	µg/Kg-dry	1	10/25/2019 03:40
Di-n-butyl phthalate	U		7.1	38	µg/Kg-dry	1	10/25/2019 03:40
Di-n-octyl phthalate	U		7.4	38	µg/Kg-dry	1	10/25/2019 03:40
Fluoranthene	57		3.7	7.7	µg/Kg-dry	1	10/25/2019 03:40

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03D
Collection Date: 10/17/2019 09:10 AM

Work Order: 19101554
Lab ID: 19101554-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.6	7.7	µg/Kg-dry	1	10/25/2019 03:40
Hexachlorobenzene	U		11	38	µg/Kg-dry	1	10/25/2019 03:40
Hexachlorobutadiene	U		21	38	µg/Kg-dry	1	10/25/2019 03:40
Hexachlorocyclopentadiene	U		13	38	µg/Kg-dry	1	10/25/2019 03:40
Hexachloroethane	U		16	38	µg/Kg-dry	1	10/25/2019 03:40
Indeno(1,2,3-cd)pyrene	27		5.4	7.7	µg/Kg-dry	1	10/25/2019 03:40
Isophorone	U		7.5	190	µg/Kg-dry	1	10/25/2019 03:40
Naphthalene	8.5		4.9	7.7	µg/Kg-dry	1	10/25/2019 03:40
Nitrobenzene	U		13	190	µg/Kg-dry	1	10/25/2019 03:40
N-Nitrosodi-n-propylamine	U		6.4	38	µg/Kg-dry	1	10/25/2019 03:40
N-Nitrosodiphenylamine	U		3.7	38	µg/Kg-dry	1	10/25/2019 03:40
Pentachlorophenol	U		14	38	µg/Kg-dry	1	10/25/2019 03:40
Phenanthrene	50		3.6	7.7	µg/Kg-dry	1	10/25/2019 03:40
Phenol	U		9.6	38	µg/Kg-dry	1	10/25/2019 03:40
Pyrene	54		1.4	7.7	µg/Kg-dry	1	10/25/2019 03:40
Surr: 2,4,6-Tribromophenol	61.5			38-92	%REC	1	10/25/2019 03:40
Surr: 2-Fluorobiphenyl	68.9			44-107	%REC	1	10/25/2019 03:40
Surr: 2-Fluorophenol	73.0			37-109	%REC	1	10/25/2019 03:40
Surr: 4-Terphenyl-d14	59.8			52-123	%REC	1	10/25/2019 03:40
Surr: Nitrobenzene-d5	77.3			41-94	%REC	1	10/25/2019 03:40
Surr: Phenol-d6	74.5			28-111	%REC	1	10/25/2019 03:40
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,500	6,100	µg/Kg-dry	1	10/25/2019 20:57
Surr: Toluene-d8	86.6			70-130	%REC	1	10/25/2019 20:57
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.81	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,1,2,2-Tetrachloroethane	U		0.65	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,1,2-Trichloroethane	U		0.69	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,1,2-Trichlorotrifluoroethane	U		1.1	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,1-Dichloroethane	U		0.63	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,1-Dichloroethene	U		1.0	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2,3-Trichlorobenzene	U		1.8	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2,4-Trichlorobenzene	U		1.1	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2-Dibromo-3-chloropropane	U		1.0	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2-Dibromoethane	U		0.37	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2-Dichlorobenzene	U		0.72	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2-Dichloroethane	U		0.57	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,2-Dichloropropane	U		0.45	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
1,3-Dichlorobenzene	U		0.62	5.1	µg/Kg-dry	0.864	10/27/2019 21:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03D
Collection Date: 10/17/2019 09:10 AM

Work Order: 19101554
Lab ID: 19101554-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.65	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
2-Butanone	U		5.2	10	µg/Kg-dry	0.864	10/27/2019 21:30
2-Hexanone	U		1.8	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
4-Methyl-2-pentanone	U		1.8	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Acetone	19		4.7	10	µg/Kg-dry	0.864	10/27/2019 21:30
Benzene	U		0.53	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Bromochloromethane	U		0.55	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Bromodichloromethane	U		0.61	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Bromoform	U		0.51	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Bromomethane	U		2.6	10	µg/Kg-dry	0.864	10/27/2019 21:30
Carbon disulfide	U		0.60	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Carbon tetrachloride	U		1.0	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Chlorobenzene	U		0.64	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Chloroethane	U		1.9	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Chloroform	U		0.84	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Chloromethane	U		1.0	10	µg/Kg-dry	0.864	10/27/2019 21:30
cis-1,2-Dichloroethene	U		0.55	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
cis-1,3-Dichloropropene	U		0.61	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Cyclohexane	U		1.7	10	µg/Kg-dry	0.864	10/27/2019 21:30
Dibromochloromethane	U		0.52	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Dichlorodifluoromethane	U		2.6	10	µg/Kg-dry	0.864	10/27/2019 21:30
Ethylbenzene	U		0.89	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Isopropylbenzene	U		0.87	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
m,p-Xylene	U		2.3	2.6	µg/Kg-dry	0.864	10/27/2019 21:30
Methyl acetate	U		1.2	10	µg/Kg-dry	0.864	10/27/2019 21:30
Methyl tert-butyl ether	U		0.62	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Methylcyclohexane	U		1.5	10	µg/Kg-dry	0.864	10/27/2019 21:30
Methylene chloride	U		6.3	10	µg/Kg-dry	0.864	10/27/2019 21:30
o-Xylene	U		1.2	2.6	µg/Kg-dry	0.864	10/27/2019 21:30
Styrene	U		0.77	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Tetrachloroethene	U		0.91	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Toluene	U		0.88	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
trans-1,2-Dichloroethene	U		0.51	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
trans-1,3-Dichloropropene	U		0.49	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Trichloroethene	U		0.74	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Trichlorofluoromethane	U		0.73	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Vinyl chloride	U		0.72	5.1	µg/Kg-dry	0.864	10/27/2019 21:30
Surr: 1,2-Dichloroethane-d4	110			83-132	%REC	0.864	10/27/2019 21:30
Surr: 4-Bromofluorobenzene	106			83-111	%REC	0.864	10/27/2019 21:30
Surr: Dibromofluoromethane	46.6	S		77-125	%REC	0.864	10/27/2019 21:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-01-03D
Collection Date: 10/17/2019 09:10 AM

Work Order: 19101554
Lab ID: 19101554-09
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	94.7			86-108	%REC	0.864	10/27/2019 21:30
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	16		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03
Collection Date: 10/17/2019 09:19 AM

Work Order: 19101554
Lab ID: 19101554-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		25	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1221	U		25	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1232	U		25	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1242	U		25	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1248	U		25	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1254	U		20	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1260	U		20	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1262	U		20	73	µg/Kg-dry	1	10/30/2019 05:09
Aroclor 1268	U		20	73	µg/Kg-dry	1	10/30/2019 05:09
Surr: Decachlorobiphenyl	92.6			40-140	%REC	1	10/30/2019 05:09
Surr: Tetrachloro-m-xylene	81.2			45-124	%REC	1	10/30/2019 05:09
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	80		0.047	0.39	mg/Kg-dry	1	10/30/2019 00:25
Barium	35		0.36	0.39	mg/Kg-dry	1	10/30/2019 00:25
Cadmium	U		0.023	0.16	mg/Kg-dry	1	10/30/2019 00:25
Chromium	76		1.7	3.9	mg/Kg-dry	10	10/30/2019 18:38
Lead	21		0.19	0.39	mg/Kg-dry	1	10/30/2019 00:25
Selenium	U		0.36	0.39	mg/Kg-dry	1	10/30/2019 00:25
Silver	U		0.052	0.39	mg/Kg-dry	1	10/30/2019 00:25
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.6	5.3	mg/Kg-dry	1	10/26/2019 12:56
ORO (C21-C35)	U		1.8	5.3	mg/Kg-dry	1	10/26/2019 12:56
Surr: 4-Terphenyl-d14	55.1			25-137	%REC	1	10/26/2019 12:56
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		5.9	36	µg/Kg-dry	1	10/25/2019 04:01
1,2,4,5-Tetrachlorobenzene	U		28	360	µg/Kg-dry	1	10/25/2019 04:01
1,4-Dioxane	U		26	180	µg/Kg-dry	1	10/25/2019 04:01
2,2'-Oxybis(1-chloropropane)	U		8.5	36	µg/Kg-dry	1	10/25/2019 04:01
2,3,4,6-Tetrachlorophenol	U		9.4	73	µg/Kg-dry	1	10/25/2019 04:01
2,4,5-Trichlorophenol	U		9.9	36	µg/Kg-dry	1	10/25/2019 04:01
2,4,6-Trichlorophenol	U		9.6	36	µg/Kg-dry	1	10/25/2019 04:01
2,4-Dichlorophenol	U		7.6	36	µg/Kg-dry	1	10/25/2019 04:01
2,4-Dimethylphenol	U		7.4	36	µg/Kg-dry	1	10/25/2019 04:01
2,4-Dinitrophenol	U		20	36	µg/Kg-dry	1	10/25/2019 04:01
2,4-Dinitrotoluene	U		9.4	36	µg/Kg-dry	1	10/25/2019 04:01
2,6-Dinitrotoluene	U		6.0	36	µg/Kg-dry	1	10/25/2019 04:01
2-Chloronaphthalene	U		5.1	7.3	µg/Kg-dry	1	10/25/2019 04:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03
Collection Date: 10/17/2019 09:19 AM

Work Order: 19101554
Lab ID: 19101554-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		11	36	µg/Kg-dry	1	10/25/2019 04:01
2-Methylnaphthalene	U		3.7	7.3	µg/Kg-dry	1	10/25/2019 04:01
2-Methylphenol	U		9.8	36	µg/Kg-dry	1	10/25/2019 04:01
2-Nitroaniline	U		8.3	36	µg/Kg-dry	1	10/25/2019 04:01
2-Nitrophenol	U		10	36	µg/Kg-dry	1	10/25/2019 04:01
3&4-Methylphenol	U		7.3	36	µg/Kg-dry	1	10/25/2019 04:01
3,3'-Dichlorobenzidine	U		5.4	180	µg/Kg-dry	1	10/25/2019 04:01
3-Nitroaniline	U		8.3	36	µg/Kg-dry	1	10/25/2019 04:01
4,6-Dinitro-2-methylphenol	U		9.1	36	µg/Kg-dry	1	10/25/2019 04:01
4-Bromophenyl phenyl ether	U		9.7	36	µg/Kg-dry	1	10/25/2019 04:01
4-Chloro-3-methylphenol	U		10	36	µg/Kg-dry	1	10/25/2019 04:01
4-Chloroaniline	U		5.7	73	µg/Kg-dry	1	10/25/2019 04:01
4-Chlorophenyl phenyl ether	U		10	36	µg/Kg-dry	1	10/25/2019 04:01
4-Nitroaniline	U		56	180	µg/Kg-dry	1	10/25/2019 04:01
4-Nitrophenol	U		32	36	µg/Kg-dry	1	10/25/2019 04:01
Acenaphthene	U		5.2	7.3	µg/Kg-dry	1	10/25/2019 04:01
Acenaphthylene	U		6.3	7.3	µg/Kg-dry	1	10/25/2019 04:01
Acetophenone	U		5.7	36	µg/Kg-dry	1	10/25/2019 04:01
Anthracene	U		5.1	7.3	µg/Kg-dry	1	10/25/2019 04:01
Atrazine	U		5.7	36	µg/Kg-dry	1	10/25/2019 04:01
Benzaldehyde	U		56	73	µg/Kg-dry	1	10/25/2019 04:01
Benzo(a)anthracene	U		6.3	7.3	µg/Kg-dry	1	10/25/2019 04:01
Benzo(a)pyrene	U		4.4	7.3	µg/Kg-dry	1	10/25/2019 04:01
Benzo(b)fluoranthene	U		5.4	7.3	µg/Kg-dry	1	10/25/2019 04:01
Benzo(g,h,i)perylene	U		5.6	7.3	µg/Kg-dry	1	10/25/2019 04:01
Benzo(k)fluoranthene	U		5.5	7.3	µg/Kg-dry	1	10/25/2019 04:01
Bis(2-chloroethoxy)methane	U		3.5	36	µg/Kg-dry	1	10/25/2019 04:01
Bis(2-chloroethyl)ether	U		10	36	µg/Kg-dry	1	10/25/2019 04:01
Bis(2-ethylhexyl)phthalate	U		6.3	36	µg/Kg-dry	1	10/25/2019 04:01
Butyl benzyl phthalate	U		6.1	36	µg/Kg-dry	1	10/25/2019 04:01
Caprolactam	U		12	36	µg/Kg-dry	1	10/25/2019 04:01
Carbazole	U		3.9	36	µg/Kg-dry	1	10/25/2019 04:01
Chrysene	U		5.9	7.3	µg/Kg-dry	1	10/25/2019 04:01
Dibenzo(a,h)anthracene	U		3.9	7.3	µg/Kg-dry	1	10/25/2019 04:01
Dibenzofuran	U		5.3	36	µg/Kg-dry	1	10/25/2019 04:01
Diethyl phthalate	U		5.5	36	µg/Kg-dry	1	10/25/2019 04:01
Dimethyl phthalate	U		7.1	36	µg/Kg-dry	1	10/25/2019 04:01
Di-n-butyl phthalate	U		6.6	36	µg/Kg-dry	1	10/25/2019 04:01
Di-n-octyl phthalate	U		7.0	36	µg/Kg-dry	1	10/25/2019 04:01
Fluoranthene	U		3.5	7.3	µg/Kg-dry	1	10/25/2019 04:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03
Collection Date: 10/17/2019 09:19 AM

Work Order: 19101554
Lab ID: 19101554-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.3	7.3	µg/Kg-dry	1	10/25/2019 04:01
Hexachlorobenzene	U		11	36	µg/Kg-dry	1	10/25/2019 04:01
Hexachlorobutadiene	U		20	36	µg/Kg-dry	1	10/25/2019 04:01
Hexachlorocyclopentadiene	U		12	36	µg/Kg-dry	1	10/25/2019 04:01
Hexachloroethane	U		15	36	µg/Kg-dry	1	10/25/2019 04:01
Indeno(1,2,3-cd)pyrene	U		5.0	7.3	µg/Kg-dry	1	10/25/2019 04:01
Isophorone	U		7.1	180	µg/Kg-dry	1	10/25/2019 04:01
Naphthalene	U		4.6	7.3	µg/Kg-dry	1	10/25/2019 04:01
Nitrobenzene	U		12	180	µg/Kg-dry	1	10/25/2019 04:01
N-Nitrosodi-n-propylamine	U		6.0	36	µg/Kg-dry	1	10/25/2019 04:01
N-Nitrosodiphenylamine	U		3.5	36	µg/Kg-dry	1	10/25/2019 04:01
Pentachlorophenol	U		13	36	µg/Kg-dry	1	10/25/2019 04:01
Phenanthrene	U		3.4	7.3	µg/Kg-dry	1	10/25/2019 04:01
Phenol	U		9.0	36	µg/Kg-dry	1	10/25/2019 04:01
Pyrene	U		1.3	7.3	µg/Kg-dry	1	10/25/2019 04:01
Surr: 2,4,6-Tribromophenol	70.9			38-92	%REC	1	10/25/2019 04:01
Surr: 2-Fluorobiphenyl	72.7			44-107	%REC	1	10/25/2019 04:01
Surr: 2-Fluorophenol	85.5			37-109	%REC	1	10/25/2019 04:01
Surr: 4-Terphenyl-d14	66.4			52-123	%REC	1	10/25/2019 04:01
Surr: Nitrobenzene-d5	79.1			41-94	%REC	1	10/25/2019 04:01
Surr: Phenol-d6	84.3			28-111	%REC	1	10/25/2019 04:01
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,300	5,400	µg/Kg-dry	1	10/25/2019 21:14
Surr: Toluene-d8	88.0			70-130	%REC	1	10/25/2019 21:14
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.73	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,1,2,2-Tetrachloroethane	U		0.59	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,1,2-Trichloroethane	U		0.62	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,1,2-Trichlorotrifluoroethane	U		1.0	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,1-Dichloroethane	U		0.57	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,1-Dichloroethene	U		0.90	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2,3-Trichlorobenzene	U		1.7	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2,4-Trichlorobenzene	U		1.0	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2-Dibromo-3-chloropropane	U		0.91	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2-Dibromoethane	U		0.33	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2-Dichlorobenzene	U		0.65	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2-Dichloroethane	U		0.52	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,2-Dichloropropane	U		0.41	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
1,3-Dichlorobenzene	U		0.56	4.6	µg/Kg-dry	0.826	10/27/2019 21:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03
Collection Date: 10/17/2019 09:19 AM

Work Order: 19101554
Lab ID: 19101554-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.59	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
2-Butanone	U		4.7	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
2-Hexanone	U		1.7	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
4-Methyl-2-pentanone	U		1.7	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Acetone	25		4.2	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Benzene	U		0.48	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Bromochloromethane	U		0.50	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Bromodichloromethane	U		0.55	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Bromoform	U		0.46	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Bromomethane	U		2.3	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Carbon disulfide	U		0.54	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Carbon tetrachloride	U		0.92	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Chlorobenzene	U		0.58	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Chloroethane	U		1.8	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Chloroform	U		0.76	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Chloromethane	U		0.92	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
cis-1,2-Dichloroethene	U		0.50	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
cis-1,3-Dichloropropene	U		0.55	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Cyclohexane	U		1.6	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Dibromochloromethane	U		0.47	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Dichlorodifluoromethane	U		2.3	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Ethylbenzene	U		0.80	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Isopropylbenzene	U		0.78	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
m,p-Xylene	U		2.0	2.3	µg/Kg-dry	0.826	10/27/2019 21:46
Methyl acetate	U		1.1	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Methyl tert-butyl ether	U		0.56	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Methylcyclohexane	U		1.4	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
Methylene chloride	U		5.7	9.2	µg/Kg-dry	0.826	10/27/2019 21:46
o-Xylene	U		1.1	2.3	µg/Kg-dry	0.826	10/27/2019 21:46
Styrene	U		0.69	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Tetrachloroethene	U		0.82	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Toluene	U		0.79	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
trans-1,2-Dichloroethene	U		0.46	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
trans-1,3-Dichloropropene	U		0.44	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Trichloroethene	U		0.66	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Trichlorofluoromethane	U		0.65	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Vinyl chloride	U		0.65	4.6	µg/Kg-dry	0.826	10/27/2019 21:46
Surr: 1,2-Dichloroethane-d4	111			83-132	%REC	0.826	10/27/2019 21:46
Surr: 4-Bromofluorobenzene	100			83-111	%REC	0.826	10/27/2019 21:46
Surr: Dibromofluoromethane	42.9	S		77-125	%REC	0.826	10/27/2019 21:46

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03
Collection Date: 10/17/2019 09:19 AM

Work Order: 19101554
Lab ID: 19101554-10
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	92.0			86-108	%REC	0.826	10/27/2019 21:46
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	10		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-13-15
Collection Date: 10/17/2019 10:05 AM

Work Order: 19101554
Lab ID: 19101554-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		30	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1221	U		30	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1232	U		30	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1242	U		30	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1248	U		30	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1254	U		24	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1260	U		24	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1262	U		24	87	µg/Kg-dry	1	10/30/2019 06:07
Aroclor 1268	U		24	87	µg/Kg-dry	1	10/30/2019 06:07
Surr: Decachlorobiphenyl	82.5			40-140	%REC	1	10/30/2019 06:07
Surr: Tetrachloro-m-xylene	77.2			45-124	%REC	1	10/30/2019 06:07
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	29		0.062	0.51	mg/Kg-dry	1	10/30/2019 20:39
Barium	86		0.47	0.51	mg/Kg-dry	1	10/30/2019 20:39
Cadmium	U		0.031	0.21	mg/Kg-dry	1	10/30/2019 20:39
Chromium	28		2.3	5.1	mg/Kg-dry	10	10/31/2019 14:09
Lead	20		0.25	0.51	mg/Kg-dry	1	10/30/2019 20:39
Selenium	U		0.47	0.51	mg/Kg-dry	1	10/30/2019 20:39
Silver	U		0.068	0.51	mg/Kg-dry	1	10/30/2019 20:39
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		2.0	6.6	mg/Kg-dry	1	10/26/2019 13:16
ORO (C21-C35)	U		2.2	6.6	mg/Kg-dry	1	10/26/2019 13:16
Surr: 4-Terphenyl-d14	63.8			25-137	%REC	1	10/26/2019 13:16
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.9	42	µg/Kg-dry	1	10/25/2019 04:22
1,2,4,5-Tetrachlorobenzene	U		33	430	µg/Kg-dry	1	10/25/2019 04:22
1,4-Dioxane	U		31	210	µg/Kg-dry	1	10/25/2019 04:22
2,2'-Oxybis(1-chloropropane)	U		10	42	µg/Kg-dry	1	10/25/2019 04:22
2,3,4,6-Tetrachlorophenol	U		11	86	µg/Kg-dry	1	10/25/2019 04:22
2,4,5-Trichlorophenol	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
2,4,6-Trichlorophenol	U		11	42	µg/Kg-dry	1	10/25/2019 04:22
2,4-Dichlorophenol	U		9.0	42	µg/Kg-dry	1	10/25/2019 04:22
2,4-Dimethylphenol	U		8.7	42	µg/Kg-dry	1	10/25/2019 04:22
2,4-Dinitrophenol	U		23	42	µg/Kg-dry	1	10/25/2019 04:22
2,4-Dinitrotoluene	U		11	42	µg/Kg-dry	1	10/25/2019 04:22
2,6-Dinitrotoluene	U		7.0	42	µg/Kg-dry	1	10/25/2019 04:22
2-Chloronaphthalene	U		6.0	8.5	µg/Kg-dry	1	10/25/2019 04:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-13-15
Collection Date: 10/17/2019 10:05 AM

Work Order: 19101554
Lab ID: 19101554-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		13	42	µg/Kg-dry	1	10/25/2019 04:22
2-Methylnaphthalene	U		4.3	8.5	µg/Kg-dry	1	10/25/2019 04:22
2-Methylphenol	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
2-Nitroaniline	U		9.8	42	µg/Kg-dry	1	10/25/2019 04:22
2-Nitrophenol	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
3&4-Methylphenol	U		8.6	42	µg/Kg-dry	1	10/25/2019 04:22
3,3'-Dichlorobenzidine	U		6.3	210	µg/Kg-dry	1	10/25/2019 04:22
3-Nitroaniline	U		9.8	42	µg/Kg-dry	1	10/25/2019 04:22
4,6-Dinitro-2-methylphenol	U		11	42	µg/Kg-dry	1	10/25/2019 04:22
4-Bromophenyl phenyl ether	U		11	42	µg/Kg-dry	1	10/25/2019 04:22
4-Chloro-3-methylphenol	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
4-Chloroaniline	U		6.7	86	µg/Kg-dry	1	10/25/2019 04:22
4-Chlorophenyl phenyl ether	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
4-Nitroaniline	U		66	210	µg/Kg-dry	1	10/25/2019 04:22
4-Nitrophenol	U		38	42	µg/Kg-dry	1	10/25/2019 04:22
Acenaphthene	U		6.2	8.5	µg/Kg-dry	1	10/25/2019 04:22
Acenaphthylene	U		7.4	8.5	µg/Kg-dry	1	10/25/2019 04:22
Acetophenone	U		6.7	42	µg/Kg-dry	1	10/25/2019 04:22
Anthracene	U		6.0	8.5	µg/Kg-dry	1	10/25/2019 04:22
Atrazine	U		6.7	42	µg/Kg-dry	1	10/25/2019 04:22
Benzaldehyde	U		66	86	µg/Kg-dry	1	10/25/2019 04:22
Benzo(a)anthracene	U		7.4	8.5	µg/Kg-dry	1	10/25/2019 04:22
Benzo(a)pyrene	U		5.2	8.5	µg/Kg-dry	1	10/25/2019 04:22
Benzo(b)fluoranthene	U		6.4	8.5	µg/Kg-dry	1	10/25/2019 04:22
Benzo(g,h,i)perylene	U		6.5	8.5	µg/Kg-dry	1	10/25/2019 04:22
Benzo(k)fluoranthene	U		6.5	8.5	µg/Kg-dry	1	10/25/2019 04:22
Bis(2-chloroethoxy)methane	U		4.1	42	µg/Kg-dry	1	10/25/2019 04:22
Bis(2-chloroethyl)ether	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
Bis(2-ethylhexyl)phthalate	U		7.4	42	µg/Kg-dry	1	10/25/2019 04:22
Butyl benzyl phthalate	U		7.2	42	µg/Kg-dry	1	10/25/2019 04:22
Caprolactam	U		15	42	µg/Kg-dry	1	10/25/2019 04:22
Carbazole	U		4.6	42	µg/Kg-dry	1	10/25/2019 04:22
Chrysene	U		6.9	8.5	µg/Kg-dry	1	10/25/2019 04:22
Dibenzo(a,h)anthracene	U		4.6	8.5	µg/Kg-dry	1	10/25/2019 04:22
Dibenzofuran	U		6.3	42	µg/Kg-dry	1	10/25/2019 04:22
Diethyl phthalate	U		6.5	42	µg/Kg-dry	1	10/25/2019 04:22
Dimethyl phthalate	U		8.3	42	µg/Kg-dry	1	10/25/2019 04:22
Di-n-butyl phthalate	U		7.8	42	µg/Kg-dry	1	10/25/2019 04:22
Di-n-octyl phthalate	U		8.2	42	µg/Kg-dry	1	10/25/2019 04:22
Fluoranthene	U		4.1	8.5	µg/Kg-dry	1	10/25/2019 04:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-13-15
Collection Date: 10/17/2019 10:05 AM

Work Order: 19101554
Lab ID: 19101554-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		6.2	8.5	µg/Kg-dry	1	10/25/2019 04:22
Hexachlorobenzene	U		12	42	µg/Kg-dry	1	10/25/2019 04:22
Hexachlorobutadiene	U		23	42	µg/Kg-dry	1	10/25/2019 04:22
Hexachlorocyclopentadiene	U		15	42	µg/Kg-dry	1	10/25/2019 04:22
Hexachloroethane	U		18	42	µg/Kg-dry	1	10/25/2019 04:22
Indeno(1,2,3-cd)pyrene	U		5.9	8.5	µg/Kg-dry	1	10/25/2019 04:22
Isophorone	U		8.3	210	µg/Kg-dry	1	10/25/2019 04:22
Naphthalene	U		5.5	8.5	µg/Kg-dry	1	10/25/2019 04:22
Nitrobenzene	U		14	210	µg/Kg-dry	1	10/25/2019 04:22
N-Nitrosodi-n-propylamine	U		7.0	42	µg/Kg-dry	1	10/25/2019 04:22
N-Nitrosodiphenylamine	U		4.1	42	µg/Kg-dry	1	10/25/2019 04:22
Pentachlorophenol	U		16	42	µg/Kg-dry	1	10/25/2019 04:22
Phenanthrene	U		4.0	8.5	µg/Kg-dry	1	10/25/2019 04:22
Phenol	U		11	42	µg/Kg-dry	1	10/25/2019 04:22
Pyrene	U		1.5	8.5	µg/Kg-dry	1	10/25/2019 04:22
Surr: 2,4,6-Tribromophenol	50.9			38-92	%REC	1	10/25/2019 04:22
Surr: 2-Fluorobiphenyl	68.4			44-107	%REC	1	10/25/2019 04:22
Surr: 2-Fluorophenol	56.5			37-109	%REC	1	10/25/2019 04:22
Surr: 4-Terphenyl-d14	60.9			52-123	%REC	1	10/25/2019 04:22
Surr: Nitrobenzene-d5	75.4			41-94	%REC	1	10/25/2019 04:22
Surr: Phenol-d6	58.3			28-111	%REC	1	10/25/2019 04:22
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,700	6,900	µg/Kg-dry	1	10/26/2019 03:10
Surr: Toluene-d8	84.8			70-130	%REC	1	10/26/2019 03:10
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C		Analyst: MF		
1,1,1-Trichloroethane	U		1.0	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,1,2,2-Tetrachloroethane	U		0.84	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,1,2-Trichloroethane	U		0.88	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,1,2-Trichlorotrifluoroethane	U		1.5	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,1-Dichloroethane	U		0.82	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,1-Dichloroethene	U		1.3	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2,3-Trichlorobenzene	U		2.4	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2,4-Trichlorobenzene	U		1.5	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2-Dibromo-3-chloropropane	U		1.3	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2-Dibromoethane	U		0.47	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2-Dichlorobenzene	U		0.92	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2-Dichloroethane	U		0.74	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,2-Dichloropropane	U		0.58	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
1,3-Dichlorobenzene	U		0.80	6.6	µg/Kg-dry	0.992	10/27/2019 22:03

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-13-15
Collection Date: 10/17/2019 10:05 AM

Work Order: 19101554
Lab ID: 19101554-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.84	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
2-Butanone	U		6.7	13	µg/Kg-dry	0.992	10/27/2019 22:03
2-Hexanone	U		2.4	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
4-Methyl-2-pentanone	U		2.4	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Acetone	12	J	6.1	13	µg/Kg-dry	0.992	10/27/2019 22:03
Benzene	U		0.69	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Bromochloromethane	U		0.71	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Bromodichloromethane	U		0.79	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Bromoform	U		0.66	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Bromomethane	U		3.3	13	µg/Kg-dry	0.992	10/27/2019 22:03
Carbon disulfide	U		0.78	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Carbon tetrachloride	U		1.3	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Chlorobenzene	U		0.83	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Chloroethane	U		2.5	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Chloroform	U		1.1	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Chloromethane	U		1.3	13	µg/Kg-dry	0.992	10/27/2019 22:03
cis-1,2-Dichloroethene	U		0.71	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
cis-1,3-Dichloropropene	U		0.79	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Cyclohexane	U		2.2	13	µg/Kg-dry	0.992	10/27/2019 22:03
Dibromochloromethane	U		0.67	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Dichlorodifluoromethane	U		3.3	13	µg/Kg-dry	0.992	10/27/2019 22:03
Ethylbenzene	U		1.1	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Isopropylbenzene	U		1.1	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
m,p-Xylene	U		2.9	3.3	µg/Kg-dry	0.992	10/27/2019 22:03
Methyl acetate	U		1.6	13	µg/Kg-dry	0.992	10/27/2019 22:03
Methyl tert-butyl ether	U		0.80	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Methylcyclohexane	U		2.0	13	µg/Kg-dry	0.992	10/27/2019 22:03
Methylene chloride	U		8.2	13	µg/Kg-dry	0.992	10/27/2019 22:03
o-Xylene	U		1.6	3.3	µg/Kg-dry	0.992	10/27/2019 22:03
Styrene	U		0.99	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Tetrachloroethene	U		1.2	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Toluene	U		1.1	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
trans-1,2-Dichloroethene	U		0.66	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
trans-1,3-Dichloropropene	U		0.63	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Trichloroethene	U		0.95	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Trichlorofluoromethane	U		0.94	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Vinyl chloride	U		0.92	6.6	µg/Kg-dry	0.992	10/27/2019 22:03
Surr: 1,2-Dichloroethane-d4	112			83-132	%REC	0.992	10/27/2019 22:03
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.992	10/27/2019 22:03
Surr: Dibromofluoromethane	55.3	S		77-125	%REC	0.992	10/27/2019 22:03

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-13-15
Collection Date: 10/17/2019 10:05 AM

Work Order: 19101554
Lab ID: 19101554-11
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	96.5			86-108	%REC	0.992	10/27/2019 22:03
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	25		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03D
Collection Date: 10/17/2019 10:10 AM

Work Order: 19101554
Lab ID: 19101554-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		25	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1221	U		25	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1232	U		25	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1242	U		25	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1248	U		25	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1254	U		20	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1260	U		20	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1262	U		20	72	µg/Kg-dry	1	10/30/2019 06:21
Aroclor 1268	U		20	72	µg/Kg-dry	1	10/30/2019 06:21
Surr: Decachlorobiphenyl	90.8			40-140	%REC	1	10/30/2019 06:21
Surr: Tetrachloro-m-xylene	82.3			45-124	%REC	1	10/30/2019 06:21
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	70		0.053	0.44	mg/Kg-dry	1	10/30/2019 20:40
Barium	29		0.41	0.44	mg/Kg-dry	1	10/30/2019 20:40
Cadmium	U		0.026	0.18	mg/Kg-dry	1	10/30/2019 20:40
Chromium	51		1.9	4.4	mg/Kg-dry	10	10/31/2019 14:10
Lead	17		0.21	0.44	mg/Kg-dry	1	10/30/2019 20:40
Selenium	U		0.41	0.44	mg/Kg-dry	1	10/30/2019 20:40
Silver	U		0.058	0.44	mg/Kg-dry	1	10/30/2019 20:40
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.6	mg/Kg-dry	1	10/26/2019 13:36
ORO (C21-C35)	U		1.9	5.6	mg/Kg-dry	1	10/26/2019 13:36
Surr: 4-Terphenyl-d14	59.2			25-137	%REC	1	10/26/2019 13:36
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.0	37	µg/Kg-dry	1	10/25/2019 04:44
1,2,4,5-Tetrachlorobenzene	U		29	370	µg/Kg-dry	1	10/25/2019 04:44
1,4-Dioxane	U		27	190	µg/Kg-dry	1	10/25/2019 04:44
2,2'-Oxybis(1-chloropropane)	U		8.7	37	µg/Kg-dry	1	10/25/2019 04:44
2,3,4,6-Tetrachlorophenol	U		9.7	75	µg/Kg-dry	1	10/25/2019 04:44
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/25/2019 04:44
2,4,6-Trichlorophenol	U		9.9	37	µg/Kg-dry	1	10/25/2019 04:44
2,4-Dichlorophenol	U		7.8	37	µg/Kg-dry	1	10/25/2019 04:44
2,4-Dimethylphenol	U		7.6	37	µg/Kg-dry	1	10/25/2019 04:44
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/25/2019 04:44
2,4-Dinitrotoluene	U		9.7	37	µg/Kg-dry	1	10/25/2019 04:44
2,6-Dinitrotoluene	U		6.1	37	µg/Kg-dry	1	10/25/2019 04:44
2-Chloronaphthalene	U		5.2	7.4	µg/Kg-dry	1	10/25/2019 04:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03D
Collection Date: 10/17/2019 10:10 AM

Work Order: 19101554
Lab ID: 19101554-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/25/2019 04:44
2-Methylnaphthalene	U		3.8	7.4	µg/Kg-dry	1	10/25/2019 04:44
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/25/2019 04:44
2-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/25/2019 04:44
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/25/2019 04:44
3&4-Methylphenol	U		7.5	37	µg/Kg-dry	1	10/25/2019 04:44
3,3'-Dichlorobenzidine	U		5.5	190	µg/Kg-dry	1	10/25/2019 04:44
3-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/25/2019 04:44
4,6-Dinitro-2-methylphenol	U		9.3	37	µg/Kg-dry	1	10/25/2019 04:44
4-Bromophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/25/2019 04:44
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/25/2019 04:44
4-Chloroaniline	U		5.9	75	µg/Kg-dry	1	10/25/2019 04:44
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/25/2019 04:44
4-Nitroaniline	U		58	190	µg/Kg-dry	1	10/25/2019 04:44
4-Nitrophenol	U		33	37	µg/Kg-dry	1	10/25/2019 04:44
Acenaphthene	U		5.4	7.4	µg/Kg-dry	1	10/25/2019 04:44
Acenaphthylene	U		6.4	7.4	µg/Kg-dry	1	10/25/2019 04:44
Acetophenone	U		5.8	37	µg/Kg-dry	1	10/25/2019 04:44
Anthracene	U		5.2	7.4	µg/Kg-dry	1	10/25/2019 04:44
Atrazine	U		5.8	37	µg/Kg-dry	1	10/25/2019 04:44
Benzaldehyde	U		57	75	µg/Kg-dry	1	10/25/2019 04:44
Benzo(a)anthracene	U		6.4	7.4	µg/Kg-dry	1	10/25/2019 04:44
Benzo(a)pyrene	U		4.5	7.4	µg/Kg-dry	1	10/25/2019 04:44
Benzo(b)fluoranthene	U		5.5	7.4	µg/Kg-dry	1	10/25/2019 04:44
Benzo(g,h,i)perylene	U		5.7	7.4	µg/Kg-dry	1	10/25/2019 04:44
Benzo(k)fluoranthene	U		5.6	7.4	µg/Kg-dry	1	10/25/2019 04:44
Bis(2-chloroethoxy)methane	U		3.6	37	µg/Kg-dry	1	10/25/2019 04:44
Bis(2-chloroethyl)ether	U		11	37	µg/Kg-dry	1	10/25/2019 04:44
Bis(2-ethylhexyl)phthalate	U		6.4	37	µg/Kg-dry	1	10/25/2019 04:44
Butyl benzyl phthalate	U		6.3	37	µg/Kg-dry	1	10/25/2019 04:44
Caprolactam	U		13	37	µg/Kg-dry	1	10/25/2019 04:44
Carbazole	U		4.0	37	µg/Kg-dry	1	10/25/2019 04:44
Chrysene	U		6.0	7.4	µg/Kg-dry	1	10/25/2019 04:44
Dibenzo(a,h)anthracene	U		4.0	7.4	µg/Kg-dry	1	10/25/2019 04:44
Dibenzofuran	U		5.5	37	µg/Kg-dry	1	10/25/2019 04:44
Diethyl phthalate	U		5.7	37	µg/Kg-dry	1	10/25/2019 04:44
Dimethyl phthalate	U		7.2	37	µg/Kg-dry	1	10/25/2019 04:44
Di-n-butyl phthalate	U		6.8	37	µg/Kg-dry	1	10/25/2019 04:44
Di-n-octyl phthalate	U		7.1	37	µg/Kg-dry	1	10/25/2019 04:44
Fluoranthene	U		3.6	7.4	µg/Kg-dry	1	10/25/2019 04:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03D
Collection Date: 10/17/2019 10:10 AM

Work Order: 19101554
Lab ID: 19101554-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.4	7.4	µg/Kg-dry	1	10/25/2019 04:44
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/25/2019 04:44
Hexachlorobutadiene	U		20	37	µg/Kg-dry	1	10/25/2019 04:44
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/25/2019 04:44
Hexachloroethane	U		15	37	µg/Kg-dry	1	10/25/2019 04:44
Indeno(1,2,3-cd)pyrene	U		5.2	7.4	µg/Kg-dry	1	10/25/2019 04:44
Isophorone	U		7.2	190	µg/Kg-dry	1	10/25/2019 04:44
Naphthalene	U		4.7	7.4	µg/Kg-dry	1	10/25/2019 04:44
Nitrobenzene	U		12	190	µg/Kg-dry	1	10/25/2019 04:44
N-Nitrosodi-n-propylamine	U		6.1	37	µg/Kg-dry	1	10/25/2019 04:44
N-Nitrosodiphenylamine	U		3.6	37	µg/Kg-dry	1	10/25/2019 04:44
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/25/2019 04:44
Phenanthrene	U		3.4	7.4	µg/Kg-dry	1	10/25/2019 04:44
Phenol	U		9.2	37	µg/Kg-dry	1	10/25/2019 04:44
Pyrene	U		1.3	7.4	µg/Kg-dry	1	10/25/2019 04:44
Surr: 2,4,6-Tribromophenol	73.9			38-92	%REC	1	10/25/2019 04:44
Surr: 2-Fluorobiphenyl	70.8			44-107	%REC	1	10/25/2019 04:44
Surr: 2-Fluorophenol	83.3			37-109	%REC	1	10/25/2019 04:44
Surr: 4-Terphenyl-d14	67.9			52-123	%REC	1	10/25/2019 04:44
Surr: Nitrobenzene-d5	77.1			41-94	%REC	1	10/25/2019 04:44
Surr: Phenol-d6	83.2			28-111	%REC	1	10/25/2019 04:44
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,300	5,300	µg/Kg-dry	1	10/25/2019 21:31
Surr: Toluene-d8	85.4			70-130	%REC	1	10/25/2019 21:31
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.88	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,1,2,2-Tetrachloroethane	U		0.72	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,1,2-Trichloroethane	U		0.75	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,1,2-Trichlorotrifluoroethane	U		1.2	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,1-Dichloroethane	U		0.69	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,1-Dichloroethene	U		1.1	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2,3-Trichlorobenzene	U		2.0	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2,4-Trichlorobenzene	U		1.2	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2-Dibromo-3-chloropropane	U		1.1	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2-Dibromoethane	U		0.40	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2-Dichlorobenzene	U		0.78	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2-Dichloroethane	U		0.63	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,2-Dichloropropane	U		0.49	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
1,3-Dichlorobenzene	U		0.68	5.6	µg/Kg-dry	0.998	10/27/2019 22:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03D
Collection Date: 10/17/2019 10:10 AM

Work Order: 19101554
Lab ID: 19101554-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.72	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
2-Butanone	U		5.7	11	µg/Kg-dry	0.998	10/27/2019 22:20
2-Hexanone	U		2.0	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
4-Methyl-2-pentanone	U		2.0	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Acetone	47		5.2	11	µg/Kg-dry	0.998	10/27/2019 22:20
Benzene	U		0.58	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Bromochloromethane	U		0.60	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Bromodichloromethane	U		0.67	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Bromoform	U		0.56	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Bromomethane	U		2.8	11	µg/Kg-dry	0.998	10/27/2019 22:20
Carbon disulfide	U		0.66	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Carbon tetrachloride	U		1.1	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Chlorobenzene	U		0.71	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Chloroethane	U		2.1	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Chloroform	U		0.92	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Chloromethane	U		1.1	11	µg/Kg-dry	0.998	10/27/2019 22:20
cis-1,2-Dichloroethene	U		0.60	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
cis-1,3-Dichloropropene	U		0.67	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Cyclohexane	U		1.9	11	µg/Kg-dry	0.998	10/27/2019 22:20
Dibromochloromethane	U		0.57	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Dichlorodifluoromethane	U		2.8	11	µg/Kg-dry	0.998	10/27/2019 22:20
Ethylbenzene	U		0.97	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Isopropylbenzene	U		0.95	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
m,p-Xylene	U		2.5	2.8	µg/Kg-dry	0.998	10/27/2019 22:20
Methyl acetate	U		1.3	11	µg/Kg-dry	0.998	10/27/2019 22:20
Methyl tert-butyl ether	U		0.68	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Methylcyclohexane	U		1.7	11	µg/Kg-dry	0.998	10/27/2019 22:20
Methylene chloride	U		6.9	11	µg/Kg-dry	0.998	10/27/2019 22:20
o-Xylene	U		1.3	2.8	µg/Kg-dry	0.998	10/27/2019 22:20
Styrene	U		0.84	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Tetrachloroethene	U		1.0	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Toluene	U		0.96	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
trans-1,2-Dichloroethene	U		0.56	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
trans-1,3-Dichloropropene	U		0.54	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Trichloroethene	U		0.81	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Trichlorofluoromethane	U		0.79	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Vinyl chloride	U		0.78	5.6	µg/Kg-dry	0.998	10/27/2019 22:20
Surr: 1,2-Dichloroethane-d4	114			83-132	%REC	0.998	10/27/2019 22:20
Surr: 4-Bromofluorobenzene	108			83-111	%REC	0.998	10/27/2019 22:20
Surr: Dibromofluoromethane	34.2	S		77-125	%REC	0.998	10/27/2019 22:20

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB05-01-03D
Collection Date: 10/17/2019 10:10 AM

Work Order: 19101554
Lab ID: 19101554-12
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	95.8			86-108	%REC	0.998	10/27/2019 22:20
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	11		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-01-03
Collection Date: 10/17/2019 10:54 AM

Work Order: 19101554
Lab ID: 19101554-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		27	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1221	U		27	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1232	U		27	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1242	U		27	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1248	U		27	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1254	U		22	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1260	U		22	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1262	U		22	80	µg/Kg-dry	1	10/30/2019 03:29
Aroclor 1268	U		22	80	µg/Kg-dry	1	10/30/2019 03:29
Surr: Decachlorobiphenyl	56.7			40-140	%REC	1	10/30/2019 03:29
Surr: Tetrachloro-m-xylene	58.7			45-124	%REC	1	10/30/2019 03:29
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	5.0		0.057	0.48	mg/Kg-dry	1	10/30/2019 20:42
Barium	130		0.44	0.48	mg/Kg-dry	1	10/30/2019 20:42
Cadmium	U		0.029	0.19	mg/Kg-dry	1	10/30/2019 20:42
Chromium	22		2.1	4.8	mg/Kg-dry	10	10/31/2019 14:12
Lead	10		0.23	0.48	mg/Kg-dry	1	10/30/2019 20:42
Selenium	U		0.44	0.48	mg/Kg-dry	1	10/30/2019 20:42
Silver	U		0.063	0.48	mg/Kg-dry	1	10/30/2019 20:42
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/22/19		Analyst: RM
DRO (C10-C21)	U		1.9	6.2	mg/Kg-dry	1	10/26/2019 13:56
ORO (C21-C35)	U		2.1	6.2	mg/Kg-dry	1	10/26/2019 13:56
Surr: 4-Terphenyl-d14	60.0			25-137	%REC	1	10/26/2019 13:56
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.8	41	µg/Kg-dry	1	10/23/2019 02:16
1,2,4,5-Tetrachlorobenzene	U		32	420	µg/Kg-dry	1	10/23/2019 02:16
1,4-Dioxane	U		30	210	µg/Kg-dry	1	10/23/2019 02:16
2,2'-Oxybis(1-chloropropane)	U		9.8	41	µg/Kg-dry	1	10/23/2019 02:16
2,3,4,6-Tetrachlorophenol	U		11	84	µg/Kg-dry	1	10/23/2019 02:16
2,4,5-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/23/2019 02:16
2,4,6-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/23/2019 02:16
2,4-Dichlorophenol	U		8.8	41	µg/Kg-dry	1	10/23/2019 02:16
2,4-Dimethylphenol	U		8.5	41	µg/Kg-dry	1	10/23/2019 02:16
2,4-Dinitrophenol	U		22	41	µg/Kg-dry	1	10/23/2019 02:16
2,4-Dinitrotoluene	U		11	41	µg/Kg-dry	1	10/23/2019 02:16
2,6-Dinitrotoluene	U		6.9	41	µg/Kg-dry	1	10/23/2019 02:16
2-Chloronaphthalene	U		5.8	8.3	µg/Kg-dry	1	10/23/2019 02:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-01-03
Collection Date: 10/17/2019 10:54 AM

Work Order: 19101554
Lab ID: 19101554-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		13	41	µg/Kg-dry	1	10/23/2019 02:16
2-Methylnaphthalene	U		4.2	8.3	µg/Kg-dry	1	10/23/2019 02:16
2-Methylphenol	U		11	41	µg/Kg-dry	1	10/23/2019 02:16
2-Nitroaniline	U		9.5	41	µg/Kg-dry	1	10/23/2019 02:16
2-Nitrophenol	U		12	41	µg/Kg-dry	1	10/23/2019 02:16
3&4-Methylphenol	U		8.4	41	µg/Kg-dry	1	10/23/2019 02:16
3,3'-Dichlorobenzidine	U		6.2	210	µg/Kg-dry	1	10/23/2019 02:16
3-Nitroaniline	U		9.5	41	µg/Kg-dry	1	10/23/2019 02:16
4,6-Dinitro-2-methylphenol	U		10	41	µg/Kg-dry	1	10/23/2019 02:16
4-Bromophenyl phenyl ether	U		11	41	µg/Kg-dry	1	10/23/2019 02:16
4-Chloro-3-methylphenol	U		12	41	µg/Kg-dry	1	10/23/2019 02:16
4-Chloroaniline	U		6.6	84	µg/Kg-dry	1	10/23/2019 02:16
4-Chlorophenyl phenyl ether	U		12	41	µg/Kg-dry	1	10/23/2019 02:16
4-Nitroaniline	U		65	210	µg/Kg-dry	1	10/23/2019 02:16
4-Nitrophenol	U		37	41	µg/Kg-dry	1	10/23/2019 02:16
Acenaphthene	U		6.0	8.3	µg/Kg-dry	1	10/23/2019 02:16
Acenaphthylene	U		7.2	8.3	µg/Kg-dry	1	10/23/2019 02:16
Acetophenone	U		6.5	41	µg/Kg-dry	1	10/23/2019 02:16
Anthracene	U		5.9	8.3	µg/Kg-dry	1	10/23/2019 02:16
Atrazine	U		6.6	41	µg/Kg-dry	1	10/23/2019 02:16
Benzaldehyde	U		64	84	µg/Kg-dry	1	10/23/2019 02:16
Benzo(a)anthracene	U		7.2	8.3	µg/Kg-dry	1	10/23/2019 02:16
Benzo(a)pyrene	U		5.1	8.3	µg/Kg-dry	1	10/23/2019 02:16
Benzo(b)fluoranthene	U		6.2	8.3	µg/Kg-dry	1	10/23/2019 02:16
Benzo(g,h,i)perylene	U		6.4	8.3	µg/Kg-dry	1	10/23/2019 02:16
Benzo(k)fluoranthene	U		6.3	8.3	µg/Kg-dry	1	10/23/2019 02:16
Bis(2-chloroethoxy)methane	U		4.0	41	µg/Kg-dry	1	10/23/2019 02:16
Bis(2-chloroethyl)ether	U		12	41	µg/Kg-dry	1	10/23/2019 02:16
Bis(2-ethylhexyl)phthalate	U		7.2	41	µg/Kg-dry	1	10/23/2019 02:16
Butyl benzyl phthalate	U		7.0	41	µg/Kg-dry	1	10/23/2019 02:16
Caprolactam	U		14	41	µg/Kg-dry	1	10/23/2019 02:16
Carbazole	U		4.5	41	µg/Kg-dry	1	10/23/2019 02:16
Chrysene	U		6.7	8.3	µg/Kg-dry	1	10/23/2019 02:16
Dibenzo(a,h)anthracene	U		4.5	8.3	µg/Kg-dry	1	10/23/2019 02:16
Dibenzofuran	U		6.1	41	µg/Kg-dry	1	10/23/2019 02:16
Diethyl phthalate	U		6.4	41	µg/Kg-dry	1	10/23/2019 02:16
Dimethyl phthalate	U		8.1	41	µg/Kg-dry	1	10/23/2019 02:16
Di-n-butyl phthalate	U		7.6	41	µg/Kg-dry	1	10/23/2019 02:16
Di-n-octyl phthalate	U		8.0	41	µg/Kg-dry	1	10/23/2019 02:16
Fluoranthene	U		4.0	8.3	µg/Kg-dry	1	10/23/2019 02:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-01-03
Collection Date: 10/17/2019 10:54 AM

Work Order: 19101554
Lab ID: 19101554-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		6.0	8.3	µg/Kg-dry	1	10/23/2019 02:16
Hexachlorobenzene	U		12	41	µg/Kg-dry	1	10/23/2019 02:16
Hexachlorobutadiene	U		23	41	µg/Kg-dry	1	10/23/2019 02:16
Hexachlorocyclopentadiene	U		14	41	µg/Kg-dry	1	10/23/2019 02:16
Hexachloroethane	U		17	41	µg/Kg-dry	1	10/23/2019 02:16
Indeno(1,2,3-cd)pyrene	U		5.8	8.3	µg/Kg-dry	1	10/23/2019 02:16
Isophorone	U		8.1	210	µg/Kg-dry	1	10/23/2019 02:16
Naphthalene	U		5.3	8.3	µg/Kg-dry	1	10/23/2019 02:16
Nitrobenzene	U		14	210	µg/Kg-dry	1	10/23/2019 02:16
N-Nitrosodi-n-propylamine	U		6.9	41	µg/Kg-dry	1	10/23/2019 02:16
N-Nitrosodiphenylamine	U		4.0	41	µg/Kg-dry	1	10/23/2019 02:16
Pentachlorophenol	U		15	41	µg/Kg-dry	1	10/23/2019 02:16
Phenanthrene	U		3.9	8.3	µg/Kg-dry	1	10/23/2019 02:16
Phenol	U		10	41	µg/Kg-dry	1	10/23/2019 02:16
Pyrene	U		1.5	8.3	µg/Kg-dry	1	10/23/2019 02:16
Surr: 2,4,6-Tribromophenol	71.9			38-92	%REC	1	10/23/2019 02:16
Surr: 2-Fluorobiphenyl	71.1			44-107	%REC	1	10/23/2019 02:16
Surr: 2-Fluorophenol	82.8			37-109	%REC	1	10/23/2019 02:16
Surr: 4-Terphenyl-d14	64.7			52-123	%REC	1	10/23/2019 02:16
Surr: Nitrobenzene-d5	77.4			41-94	%REC	1	10/23/2019 02:16
Surr: Phenol-d6	82.0			28-111	%REC	1	10/23/2019 02:16
GASOLINE RANGE ORGANICS BY GC-MS				Method: SW8260GRO		Prep: SW5035 / 10/21/19	Analyst: WH
GRO (C6-C10)	2,800	J	1,600	6,200	µg/Kg-dry	1	10/25/2019 21:48
Surr: Toluene-d8	87.0			70-130	%REC	1	10/25/2019 21:48
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL				Method: SW8260C			Analyst: MF
1,1,1-Trichloroethane	U		0.80	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,1,2,2-Tetrachloroethane	U		0.65	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,1,2-Trichloroethane	U		0.68	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,1,2-Trichlorotrifluoroethane	U		1.1	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,1-Dichloroethane	U		0.63	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,1-Dichloroethene	U		0.99	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2,3-Trichlorobenzene	U		1.8	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2,4-Trichlorobenzene	U		1.1	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2-Dibromo-3-chloropropane	U		1.0	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2-Dibromoethane	U		0.36	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2-Dichlorobenzene	U		0.71	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2-Dichloroethane	U		0.57	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,2-Dichloropropane	U		0.45	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
1,3-Dichlorobenzene	U		0.62	5.1	µg/Kg-dry	0.808	10/27/2019 22:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-01-03
Collection Date: 10/17/2019 10:54 AM

Work Order: 19101554
Lab ID: 19101554-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.65	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
2-Butanone	U		5.2	10	µg/Kg-dry	0.808	10/27/2019 22:37
2-Hexanone	U		1.8	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
4-Methyl-2-pentanone	U		1.8	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Acetone	U		4.7	10	µg/Kg-dry	0.808	10/27/2019 22:37
Benzene	U		0.53	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Bromochloromethane	U		0.55	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Bromodichloromethane	U		0.61	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Bromoform	U		0.51	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Bromomethane	U		2.5	10	µg/Kg-dry	0.808	10/27/2019 22:37
Carbon disulfide	U		0.60	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Carbon tetrachloride	U		1.0	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Chlorobenzene	U		0.64	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Chloroethane	U		1.9	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Chloroform	U		0.83	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Chloromethane	U		1.0	10	µg/Kg-dry	0.808	10/27/2019 22:37
cis-1,2-Dichloroethene	U		0.55	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
cis-1,3-Dichloropropene	U		0.61	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Cyclohexane	U		1.7	10	µg/Kg-dry	0.808	10/27/2019 22:37
Dibromochloromethane	U		0.52	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Dichlorodifluoromethane	U		2.5	10	µg/Kg-dry	0.808	10/27/2019 22:37
Ethylbenzene	1.6	J	0.88	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Isopropylbenzene	U		0.86	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
m,p-Xylene	5.7		2.2	2.5	µg/Kg-dry	0.808	10/27/2019 22:37
Methyl acetate	U		1.2	10	µg/Kg-dry	0.808	10/27/2019 22:37
Methyl tert-butyl ether	U		0.62	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Methylcyclohexane	U		1.5	10	µg/Kg-dry	0.808	10/27/2019 22:37
Methylene chloride	U		6.3	10	µg/Kg-dry	0.808	10/27/2019 22:37
o-Xylene	2.2	J	1.2	2.5	µg/Kg-dry	0.808	10/27/2019 22:37
Styrene	U		0.76	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Tetrachloroethene	U		0.90	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Toluene	U		0.87	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
trans-1,2-Dichloroethene	U		0.51	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
trans-1,3-Dichloropropene	U		0.49	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Trichloroethene	U		0.73	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Trichlorofluoromethane	U		0.72	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Vinyl chloride	U		0.71	5.1	µg/Kg-dry	0.808	10/27/2019 22:37
Surr: 1,2-Dichloroethane-d4	107			83-132	%REC	0.808	10/27/2019 22:37
Surr: 4-Bromofluorobenzene	102			83-111	%REC	0.808	10/27/2019 22:37
Surr: Dibromofluoromethane	47.4	S		77-125	%REC	0.808	10/27/2019 22:37

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-01-03
Collection Date: 10/17/2019 10:54 AM

Work Order: 19101554
Lab ID: 19101554-13
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	92.0			86-108	%REC	0.808	10/27/2019 22:37
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	20		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-11-13
Collection Date: 10/17/2019 11:03 AM

Work Order: 19101554
Lab ID: 19101554-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		27	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1221	U		27	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1232	U		27	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1242	U		27	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1248	U		27	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1254	U		22	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1260	U		22	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1262	U		22	78	µg/Kg-dry	1	10/30/2019 06:36
Aroclor 1268	U		22	78	µg/Kg-dry	1	10/30/2019 06:36
Surr: Decachlorobiphenyl	89.5			40-140	%REC	1	10/30/2019 06:36
Surr: Tetrachloro-m-xylene	80.0			45-124	%REC	1	10/30/2019 06:36
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	8.2		0.054	0.45	mg/Kg-dry	1	10/30/2019 20:44
Barium	12		0.41	0.45	mg/Kg-dry	1	10/30/2019 20:44
Cadmium	U		0.027	0.18	mg/Kg-dry	1	10/30/2019 20:44
Chromium	9.3		0.20	0.45	mg/Kg-dry	1	10/30/2019 20:44
Lead	11		0.22	0.45	mg/Kg-dry	1	10/30/2019 20:44
Selenium	U		0.41	0.45	mg/Kg-dry	1	10/30/2019 20:44
Silver	U		0.059	0.45	mg/Kg-dry	1	10/30/2019 20:44
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/23/19		Analyst: RM
DRO (C10-C21)	U		1.7	5.8	mg/Kg-dry	1	10/26/2019 08:15
ORO (C21-C35)	U		1.9	5.8	mg/Kg-dry	1	10/26/2019 08:15
Surr: 4-Terphenyl-d14	86.6			25-137	%REC	1	10/26/2019 08:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.0	37	µg/Kg-dry	1	10/25/2019 05:05
1,2,4,5-Tetrachlorobenzene	U		29	370	µg/Kg-dry	1	10/25/2019 05:05
1,4-Dioxane	U		26	190	µg/Kg-dry	1	10/25/2019 05:05
2,2'-Oxybis(1-chloropropane)	U		8.7	37	µg/Kg-dry	1	10/25/2019 05:05
2,3,4,6-Tetrachlorophenol	U		9.6	74	µg/Kg-dry	1	10/25/2019 05:05
2,4,5-Trichlorophenol	U		10	37	µg/Kg-dry	1	10/25/2019 05:05
2,4,6-Trichlorophenol	U		9.8	37	µg/Kg-dry	1	10/25/2019 05:05
2,4-Dichlorophenol	U		7.8	37	µg/Kg-dry	1	10/25/2019 05:05
2,4-Dimethylphenol	U		7.5	37	µg/Kg-dry	1	10/25/2019 05:05
2,4-Dinitrophenol	U		20	37	µg/Kg-dry	1	10/25/2019 05:05
2,4-Dinitrotoluene	U		9.6	37	µg/Kg-dry	1	10/25/2019 05:05
2,6-Dinitrotoluene	U		6.1	37	µg/Kg-dry	1	10/25/2019 05:05
2-Chloronaphthalene	U		5.2	7.4	µg/Kg-dry	1	10/25/2019 05:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-11-13
Collection Date: 10/17/2019 11:03 AM

Work Order: 19101554
Lab ID: 19101554-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	37	µg/Kg-dry	1	10/25/2019 05:05
2-Methylnaphthalene	U		3.8	7.4	µg/Kg-dry	1	10/25/2019 05:05
2-Methylphenol	U		10	37	µg/Kg-dry	1	10/25/2019 05:05
2-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/25/2019 05:05
2-Nitrophenol	U		11	37	µg/Kg-dry	1	10/25/2019 05:05
3&4-Methylphenol	U		7.4	37	µg/Kg-dry	1	10/25/2019 05:05
3,3'-Dichlorobenzidine	U		5.5	190	µg/Kg-dry	1	10/25/2019 05:05
3-Nitroaniline	U		8.5	37	µg/Kg-dry	1	10/25/2019 05:05
4,6-Dinitro-2-methylphenol	U		9.3	37	µg/Kg-dry	1	10/25/2019 05:05
4-Bromophenyl phenyl ether	U		9.9	37	µg/Kg-dry	1	10/25/2019 05:05
4-Chloro-3-methylphenol	U		11	37	µg/Kg-dry	1	10/25/2019 05:05
4-Chloroaniline	U		5.8	74	µg/Kg-dry	1	10/25/2019 05:05
4-Chlorophenyl phenyl ether	U		10	37	µg/Kg-dry	1	10/25/2019 05:05
4-Nitroaniline	U		57	190	µg/Kg-dry	1	10/25/2019 05:05
4-Nitrophenol	U		33	37	µg/Kg-dry	1	10/25/2019 05:05
Acenaphthene	U		5.3	7.4	µg/Kg-dry	1	10/25/2019 05:05
Acenaphthylene	U		6.4	7.4	µg/Kg-dry	1	10/25/2019 05:05
Acetophenone	U		5.8	37	µg/Kg-dry	1	10/25/2019 05:05
Anthracene	U		5.2	7.4	µg/Kg-dry	1	10/25/2019 05:05
Atrazine	U		5.8	37	µg/Kg-dry	1	10/25/2019 05:05
Benzaldehyde	U		57	74	µg/Kg-dry	1	10/25/2019 05:05
Benzo(a)anthracene	U		6.4	7.4	µg/Kg-dry	1	10/25/2019 05:05
Benzo(a)pyrene	U		4.5	7.4	µg/Kg-dry	1	10/25/2019 05:05
Benzo(b)fluoranthene	U		5.5	7.4	µg/Kg-dry	1	10/25/2019 05:05
Benzo(g,h,i)perylene	U		5.7	7.4	µg/Kg-dry	1	10/25/2019 05:05
Benzo(k)fluoranthene	U		5.6	7.4	µg/Kg-dry	1	10/25/2019 05:05
Bis(2-chloroethoxy)methane	U		3.5	37	µg/Kg-dry	1	10/25/2019 05:05
Bis(2-chloroethyl)ether	U		10	37	µg/Kg-dry	1	10/25/2019 05:05
Bis(2-ethylhexyl)phthalate	U		6.4	37	µg/Kg-dry	1	10/25/2019 05:05
Butyl benzyl phthalate	U		6.2	37	µg/Kg-dry	1	10/25/2019 05:05
Caprolactam	U		13	37	µg/Kg-dry	1	10/25/2019 05:05
Carbazole	U		4.0	37	µg/Kg-dry	1	10/25/2019 05:05
Chrysene	U		6.0	7.4	µg/Kg-dry	1	10/25/2019 05:05
Dibenzo(a,h)anthracene	U		4.0	7.4	µg/Kg-dry	1	10/25/2019 05:05
Dibenzofuran	U		5.4	37	µg/Kg-dry	1	10/25/2019 05:05
Diethyl phthalate	U		5.7	37	µg/Kg-dry	1	10/25/2019 05:05
Dimethyl phthalate	U		7.2	37	µg/Kg-dry	1	10/25/2019 05:05
Di-n-butyl phthalate	U		6.8	37	µg/Kg-dry	1	10/25/2019 05:05
Di-n-octyl phthalate	U		7.1	37	µg/Kg-dry	1	10/25/2019 05:05
Fluoranthene	U		3.5	7.4	µg/Kg-dry	1	10/25/2019 05:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-11-13
Collection Date: 10/17/2019 11:03 AM

Work Order: 19101554
Lab ID: 19101554-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.4	7.4	µg/Kg-dry	1	10/25/2019 05:05
Hexachlorobenzene	U		11	37	µg/Kg-dry	1	10/25/2019 05:05
Hexachlorobutadiene	U		20	37	µg/Kg-dry	1	10/25/2019 05:05
Hexachlorocyclopentadiene	U		13	37	µg/Kg-dry	1	10/25/2019 05:05
Hexachloroethane	U		15	37	µg/Kg-dry	1	10/25/2019 05:05
Indeno(1,2,3-cd)pyrene	U		5.1	7.4	µg/Kg-dry	1	10/25/2019 05:05
Isophorone	U		7.2	190	µg/Kg-dry	1	10/25/2019 05:05
Naphthalene	U		4.7	7.4	µg/Kg-dry	1	10/25/2019 05:05
Nitrobenzene	U		12	190	µg/Kg-dry	1	10/25/2019 05:05
N-Nitrosodi-n-propylamine	U		6.1	37	µg/Kg-dry	1	10/25/2019 05:05
N-Nitrosodiphenylamine	U		3.5	37	µg/Kg-dry	1	10/25/2019 05:05
Pentachlorophenol	U		14	37	µg/Kg-dry	1	10/25/2019 05:05
Phenanthrene	U		3.4	7.4	µg/Kg-dry	1	10/25/2019 05:05
Phenol	U		9.2	37	µg/Kg-dry	1	10/25/2019 05:05
Pyrene	U		1.3	7.4	µg/Kg-dry	1	10/25/2019 05:05
Surr: 2,4,6-Tribromophenol	70.8			38-92	%REC	1	10/25/2019 05:05
Surr: 2-Fluorobiphenyl	71.8			44-107	%REC	1	10/25/2019 05:05
Surr: 2-Fluorophenol	83.9			37-109	%REC	1	10/25/2019 05:05
Surr: 4-Terphenyl-d14	63.8			52-123	%REC	1	10/25/2019 05:05
Surr: Nitrobenzene-d5	79.8			41-94	%REC	1	10/25/2019 05:05
Surr: Phenol-d6	84.9			28-111	%REC	1	10/25/2019 05:05
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,400	5,500	µg/Kg-dry	1	10/26/2019 03:27
Surr: Toluene-d8	84.2			70-130	%REC	1	10/26/2019 03:27
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.73	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,1,2,2-Tetrachloroethane	U		0.59	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,1,2-Trichloroethane	U		0.62	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,1,2-Trichlorotrifluoroethane	U		1.0	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,1-Dichloroethane	U		0.58	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,1-Dichloroethene	U		0.91	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2,3-Trichlorobenzene	U		1.7	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2,4-Trichlorobenzene	U		1.0	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2-Dibromo-3-chloropropane	U		0.92	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2-Dibromoethane	U		0.33	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2-Dichlorobenzene	U		0.65	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2-Dichloroethane	U		0.52	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,2-Dichloropropane	U		0.41	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
1,3-Dichlorobenzene	U		0.57	4.6	µg/Kg-dry	0.79	10/27/2019 22:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-11-13
Collection Date: 10/17/2019 11:03 AM

Work Order: 19101554
Lab ID: 19101554-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.59	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
2-Butanone	U		4.7	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
2-Hexanone	U		1.7	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
4-Methyl-2-pentanone	U		1.7	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Acetone	U		4.3	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Benzene	U		0.48	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Bromochloromethane	U		0.50	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Bromodichloromethane	U		0.56	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Bromoform	U		0.46	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Bromomethane	U		2.3	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Carbon disulfide	U		0.55	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Carbon tetrachloride	U		0.93	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Chlorobenzene	U		0.58	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Chloroethane	U		1.8	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Chloroform	U		0.76	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Chloromethane	U		0.93	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
cis-1,2-Dichloroethene	U		0.50	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
cis-1,3-Dichloropropene	U		0.56	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Cyclohexane	U		1.6	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Dibromochloromethane	U		0.47	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Dichlorodifluoromethane	U		2.3	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Ethylbenzene	U		0.81	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Isopropylbenzene	U		0.79	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
m,p-Xylene	U		2.0	2.3	µg/Kg-dry	0.79	10/27/2019 22:54
Methyl acetate	U		1.1	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Methyl tert-butyl ether	U		0.57	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Methylcyclohexane	U		1.4	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
Methylene chloride	U		5.8	9.3	µg/Kg-dry	0.79	10/27/2019 22:54
o-Xylene	U		1.1	2.3	µg/Kg-dry	0.79	10/27/2019 22:54
Styrene	U		0.70	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Tetrachloroethene	U		0.83	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Toluene	U		0.80	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
trans-1,2-Dichloroethene	U		0.46	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
trans-1,3-Dichloropropene	U		0.45	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Trichloroethene	U		0.67	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Trichlorofluoromethane	U		0.66	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Vinyl chloride	U		0.65	4.6	µg/Kg-dry	0.79	10/27/2019 22:54
Surr: 1,2-Dichloroethane-d4	110			83-132	%REC	0.79	10/27/2019 22:54
Surr: 4-Bromofluorobenzene	97.2			83-111	%REC	0.79	10/27/2019 22:54
Surr: Dibromofluoromethane	37.9	S		77-125	%REC	0.79	10/27/2019 22:54

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB06-11-13
Collection Date: 10/17/2019 11:03 AM

Work Order: 19101554
Lab ID: 19101554-14
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	95.8			86-108	%REC	0.79	10/27/2019 22:54
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	15		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-01-03
Collection Date: 10/17/2019 11:27 AM

Work Order: 19101554
Lab ID: 19101554-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		28	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1221	U		28	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1232	U		28	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1242	U		28	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1248	U		28	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1254	U		23	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1260	U		23	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1262	U		23	81	µg/Kg-dry	1	10/30/2019 06:50
Aroclor 1268	U		23	81	µg/Kg-dry	1	10/30/2019 06:50
Surr: Decachlorobiphenyl	87.5			40-140	%REC	1	10/30/2019 06:50
Surr: Tetrachloro-m-xylene	81.2			45-124	%REC	1	10/30/2019 06:50
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	3.7		0.051	0.43	mg/Kg-dry	1	10/30/2019 20:45
Barium	110		0.39	0.43	mg/Kg-dry	1	10/30/2019 20:45
Cadmium	U		0.026	0.17	mg/Kg-dry	1	10/30/2019 20:45
Chromium	14		0.19	0.43	mg/Kg-dry	1	10/30/2019 20:45
Lead	10		0.20	0.43	mg/Kg-dry	1	10/30/2019 20:45
Selenium	U		0.39	0.43	mg/Kg-dry	1	10/30/2019 20:45
Silver	U		0.056	0.43	mg/Kg-dry	1	10/30/2019 20:45
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/23/19		Analyst: RM
DRO (C10-C21)	U		1.8	6.2	mg/Kg-dry	1	10/26/2019 14:56
ORO (C21-C35)	U		2.1	6.2	mg/Kg-dry	1	10/26/2019 14:56
Surr: 4-Terphenyl-d14	80.6			25-137	%REC	1	10/26/2019 14:56
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.4	39	µg/Kg-dry	1	10/25/2019 05:26
1,2,4,5-Tetrachlorobenzene	U		31	390	µg/Kg-dry	1	10/25/2019 05:26
1,4-Dioxane	U		28	200	µg/Kg-dry	1	10/25/2019 05:26
2,2'-Oxybis(1-chloropropane)	U		9.2	39	µg/Kg-dry	1	10/25/2019 05:26
2,3,4,6-Tetrachlorophenol	U		10	79	µg/Kg-dry	1	10/25/2019 05:26
2,4,5-Trichlorophenol	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
2,4,6-Trichlorophenol	U		10	39	µg/Kg-dry	1	10/25/2019 05:26
2,4-Dichlorophenol	U		8.3	39	µg/Kg-dry	1	10/25/2019 05:26
2,4-Dimethylphenol	U		8.0	39	µg/Kg-dry	1	10/25/2019 05:26
2,4-Dinitrophenol	U		21	39	µg/Kg-dry	1	10/25/2019 05:26
2,4-Dinitrotoluene	U		10	39	µg/Kg-dry	1	10/25/2019 05:26
2,6-Dinitrotoluene	U		6.5	39	µg/Kg-dry	1	10/25/2019 05:26
2-Chloronaphthalene	U		5.5	7.9	µg/Kg-dry	1	10/25/2019 05:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-01-03
Collection Date: 10/17/2019 11:27 AM

Work Order: 19101554
Lab ID: 19101554-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		12	39	µg/Kg-dry	1	10/25/2019 05:26
2-Methylnaphthalene	U		4.0	7.9	µg/Kg-dry	1	10/25/2019 05:26
2-Methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
2-Nitroaniline	U		9.0	39	µg/Kg-dry	1	10/25/2019 05:26
2-Nitrophenol	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
3&4-Methylphenol	U		7.9	39	µg/Kg-dry	1	10/25/2019 05:26
3,3'-Dichlorobenzidine	U		5.8	200	µg/Kg-dry	1	10/25/2019 05:26
3-Nitroaniline	U		9.0	39	µg/Kg-dry	1	10/25/2019 05:26
4,6-Dinitro-2-methylphenol	U		9.9	39	µg/Kg-dry	1	10/25/2019 05:26
4-Bromophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
4-Chloro-3-methylphenol	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
4-Chloroaniline	U		6.2	79	µg/Kg-dry	1	10/25/2019 05:26
4-Chlorophenyl phenyl ether	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
4-Nitroaniline	U		61	200	µg/Kg-dry	1	10/25/2019 05:26
4-Nitrophenol	U		35	39	µg/Kg-dry	1	10/25/2019 05:26
Acenaphthene	U		5.7	7.9	µg/Kg-dry	1	10/25/2019 05:26
Acenaphthylene	U		6.8	7.9	µg/Kg-dry	1	10/25/2019 05:26
Acetophenone	U		6.2	39	µg/Kg-dry	1	10/25/2019 05:26
Anthracene	U		5.6	7.9	µg/Kg-dry	1	10/25/2019 05:26
Atrazine	U		6.2	39	µg/Kg-dry	1	10/25/2019 05:26
Benzaldehyde	U		60	79	µg/Kg-dry	1	10/25/2019 05:26
Benzo(a)anthracene	U		6.8	7.9	µg/Kg-dry	1	10/25/2019 05:26
Benzo(a)pyrene	U		4.8	7.9	µg/Kg-dry	1	10/25/2019 05:26
Benzo(b)fluoranthene	U		5.9	7.9	µg/Kg-dry	1	10/25/2019 05:26
Benzo(g,h,i)perylene	U		6.0	7.9	µg/Kg-dry	1	10/25/2019 05:26
Benzo(k)fluoranthene	U		6.0	7.9	µg/Kg-dry	1	10/25/2019 05:26
Bis(2-chloroethoxy)methane	U		3.8	39	µg/Kg-dry	1	10/25/2019 05:26
Bis(2-chloroethyl)ether	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
Bis(2-ethylhexyl)phthalate	U		6.8	39	µg/Kg-dry	1	10/25/2019 05:26
Butyl benzyl phthalate	U		6.7	39	µg/Kg-dry	1	10/25/2019 05:26
Caprolactam	U		13	39	µg/Kg-dry	1	10/25/2019 05:26
Carbazole	U		4.3	39	µg/Kg-dry	1	10/25/2019 05:26
Chrysene	U		6.4	7.9	µg/Kg-dry	1	10/25/2019 05:26
Dibenzo(a,h)anthracene	U		4.3	7.9	µg/Kg-dry	1	10/25/2019 05:26
Dibenzofuran	U		5.8	39	µg/Kg-dry	1	10/25/2019 05:26
Diethyl phthalate	U		6.0	39	µg/Kg-dry	1	10/25/2019 05:26
Dimethyl phthalate	U		7.7	39	µg/Kg-dry	1	10/25/2019 05:26
Di-n-butyl phthalate	U		7.2	39	µg/Kg-dry	1	10/25/2019 05:26
Di-n-octyl phthalate	U		7.6	39	µg/Kg-dry	1	10/25/2019 05:26
Fluoranthene	U		3.8	7.9	µg/Kg-dry	1	10/25/2019 05:26

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-01-03
Collection Date: 10/17/2019 11:27 AM

Work Order: 19101554
Lab ID: 19101554-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.7	7.9	µg/Kg-dry	1	10/25/2019 05:26
Hexachlorobenzene	U		11	39	µg/Kg-dry	1	10/25/2019 05:26
Hexachlorobutadiene	U		21	39	µg/Kg-dry	1	10/25/2019 05:26
Hexachlorocyclopentadiene	U		13	39	µg/Kg-dry	1	10/25/2019 05:26
Hexachloroethane	U		16	39	µg/Kg-dry	1	10/25/2019 05:26
Indeno(1,2,3-cd)pyrene	U		5.5	7.9	µg/Kg-dry	1	10/25/2019 05:26
Isophorone	U		7.7	200	µg/Kg-dry	1	10/25/2019 05:26
Naphthalene	U		5.0	7.9	µg/Kg-dry	1	10/25/2019 05:26
Nitrobenzene	U		13	200	µg/Kg-dry	1	10/25/2019 05:26
N-Nitrosodi-n-propylamine	U		6.5	39	µg/Kg-dry	1	10/25/2019 05:26
N-Nitrosodiphenylamine	U		3.8	39	µg/Kg-dry	1	10/25/2019 05:26
Pentachlorophenol	U		15	39	µg/Kg-dry	1	10/25/2019 05:26
Phenanthrene	U		3.7	7.9	µg/Kg-dry	1	10/25/2019 05:26
Phenol	U		9.8	39	µg/Kg-dry	1	10/25/2019 05:26
Pyrene	U		1.4	7.9	µg/Kg-dry	1	10/25/2019 05:26
Surr: 2,4,6-Tribromophenol	66.4			38-92	%REC	1	10/25/2019 05:26
Surr: 2-Fluorobiphenyl	71.6			44-107	%REC	1	10/25/2019 05:26
Surr: 2-Fluorophenol	84.7			37-109	%REC	1	10/25/2019 05:26
Surr: 4-Terphenyl-d14	62.2			52-123	%REC	1	10/25/2019 05:26
Surr: Nitrobenzene-d5	78.5			41-94	%REC	1	10/25/2019 05:26
Surr: Phenol-d6	83.9			28-111	%REC	1	10/25/2019 05:26
GASOLINE RANGE ORGANICS BY GC-MS				Method: SW8260GRO	Prep: SW5035 / 10/21/19	Analyst: WH	
GRO (C6-C10)	2,400	J	1,500	6,000	µg/Kg-dry	1	10/26/2019 03:44
Surr: Toluene-d8	83.8			70-130	%REC	1	10/26/2019 03:44
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL				Method: SW8260C	Analyst: MF		
1,1,1-Trichloroethane	U		0.84	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,1,2,2-Tetrachloroethane	U		0.68	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,1,2-Trichloroethane	U		0.71	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,1,2-Trichlorotrifluoroethane	U		1.2	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,1-Dichloroethane	U		0.66	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,1-Dichloroethene	U		1.0	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2,3-Trichlorobenzene	U		1.9	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2,4-Trichlorobenzene	U		1.2	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2-Dibromo-3-chloropropane	U		1.1	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2-Dibromoethane	U		0.38	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2-Dichlorobenzene	U		0.74	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2-Dichloroethane	U		0.59	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,2-Dichloropropane	U		0.47	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
1,3-Dichlorobenzene	U		0.65	5.3	µg/Kg-dry	0.859	10/27/2019 23:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-01-03
Collection Date: 10/17/2019 11:27 AM

Work Order: 19101554
Lab ID: 19101554-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.68	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
2-Butanone	U		5.4	11	µg/Kg-dry	0.859	10/27/2019 23:11
2-Hexanone	U		1.9	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
4-Methyl-2-pentanone	U		1.9	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Acetone	33		4.9	11	µg/Kg-dry	0.859	10/27/2019 23:11
Benzene	U		0.55	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Bromochloromethane	U		0.57	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Bromodichloromethane	U		0.64	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Bromoform	U		0.53	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Bromomethane	U		2.7	11	µg/Kg-dry	0.859	10/27/2019 23:11
Carbon disulfide	U		0.63	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Carbon tetrachloride	U		1.1	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Chlorobenzene	U		0.67	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Chloroethane	U		2.0	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Chloroform	U		0.87	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Chloromethane	U		1.1	11	µg/Kg-dry	0.859	10/27/2019 23:11
cis-1,2-Dichloroethene	U		0.57	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
cis-1,3-Dichloropropene	U		0.64	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Cyclohexane	U		1.8	11	µg/Kg-dry	0.859	10/27/2019 23:11
Dibromochloromethane	U		0.54	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Dichlorodifluoromethane	U		2.7	11	µg/Kg-dry	0.859	10/27/2019 23:11
Ethylbenzene	U		0.92	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Isopropylbenzene	U		0.90	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
m,p-Xylene	U		2.3	2.7	µg/Kg-dry	0.859	10/27/2019 23:11
Methyl acetate	U		1.3	11	µg/Kg-dry	0.859	10/27/2019 23:11
Methyl tert-butyl ether	U		0.65	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Methylcyclohexane	U		1.6	11	µg/Kg-dry	0.859	10/27/2019 23:11
Methylene chloride	U		6.6	11	µg/Kg-dry	0.859	10/27/2019 23:11
o-Xylene	U		1.3	2.7	µg/Kg-dry	0.859	10/27/2019 23:11
Styrene	U		0.80	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Tetrachloroethene	U		0.95	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Toluene	U		0.91	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
trans-1,2-Dichloroethene	U		0.53	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
trans-1,3-Dichloropropene	U		0.51	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Trichloroethene	U		0.76	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Trichlorofluoromethane	U		0.75	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Vinyl chloride	U		0.74	5.3	µg/Kg-dry	0.859	10/27/2019 23:11
Surr: 1,2-Dichloroethane-d4	113			83-132	%REC	0.859	10/27/2019 23:11
Surr: 4-Bromofluorobenzene	103			83-111	%REC	0.859	10/27/2019 23:11
Surr: Dibromofluoromethane	50.6	S		77-125	%REC	0.859	10/27/2019 23:11

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-01-03
Collection Date: 10/17/2019 11:27 AM

Work Order: 19101554
Lab ID: 19101554-15
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	94.7			86-108	%REC	0.859	10/27/2019 23:11
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	19		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: Field Blank
Collection Date: 10/17/2019 12:10 PM

Work Order: 19101554
Lab ID: 19101554-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082			Prep: SW3511 / 10/28/19	Analyst: KB
Aroclor 1016	U		0.090	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1221	U		0.090	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1232	U		0.090	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1242	U		0.090	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1248	U		0.090	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1254	U		0.091	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1260	U		0.091	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1262	U		0.091	0.20	µg/L	1	10/28/2019 18:08
Aroclor 1268	U		0.091	0.20	µg/L	1	10/28/2019 18:08
Surr: Decachlorobiphenyl	95.2			30-150	%REC	1	10/28/2019 18:08
Surr: Tetrachloro-m-xylene	75.8			50-150	%REC	1	10/28/2019 18:08
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:14
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:14
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:14
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:14
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:14
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:14
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:14
METALS BY ICP-MS (DISSOLVED)							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:12
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:12
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:12
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:12
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:12
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:12
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:12
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270			Prep: SW3510 / 10/21/19	Analyst: RM
DRO (C10-C21)	U		0.013	0.10	mg/L	1	10/26/2019 12:15
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 12:15
Surr: 4-Terphenyl-d14	82.4			23-120	%REC	1	10/26/2019 12:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D			Prep: SW3510 / 10/21/19	Analyst: RM
1,1'-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 08:00
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 08:00
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 08:00
2,2'-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 08:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: Field Blank
Collection Date: 10/17/2019 12:10 PM

Work Order: 19101554
Lab ID: 19101554-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 08:00
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 08:00
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 08:00
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 08:00
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 08:00
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 08:00
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 08:00
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 08:00
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 08:00
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 08:00
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 08:00
2-Methylphenol	U		0.25	1.0	µg/L	1	10/23/2019 08:00
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 08:00
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 08:00
3&4-Methylphenol	U		0.21	1.0	µg/L	1	10/23/2019 08:00
3,3'-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 08:00
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 08:00
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 08:00
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 08:00
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 08:00
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 08:00
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 08:00
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 08:00
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 08:00
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 08:00
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 08:00
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 08:00
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 08:00
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 08:00
Benzaldehyde	0.89	J	0.52	1.0	µg/L	1	10/23/2019 08:00
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 08:00
Benzo(a)pyrene	0.12		0.044	0.10	µg/L	1	10/23/2019 08:00
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 08:00
Benzo(g,h,i)perylene	0.11		0.030	0.10	µg/L	1	10/23/2019 08:00
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 08:00
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 08:00
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 08:00
Bis(2-ethylhexyl)phthalate	U		0.40	1.0	µg/L	1	10/23/2019 08:00
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 08:00
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 08:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: Field Blank
Collection Date: 10/17/2019 12:10 PM

Work Order: 19101554
Lab ID: 19101554-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 08:00
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 08:00
Dibenzo(a,h)anthracene	0.11		0.073	0.10	µg/L	1	10/23/2019 08:00
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 08:00
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 08:00
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 08:00
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 08:00
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 08:00
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 08:00
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 08:00
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 08:00
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 08:00
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 08:00
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 08:00
Indeno(1,2,3-cd)pyrene	0.12		0.067	0.10	µg/L	1	10/23/2019 08:00
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 08:00
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 08:00
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 08:00
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 08:00
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 08:00
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 08:00
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 08:00
Phenol	0.51	J	0.21	1.0	µg/L	1	10/23/2019 08:00
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 08:00
Surr: 2,4,6-Tribromophenol	81.8			27-83	%REC	1	10/23/2019 08:00
Surr: 2-Fluorobiphenyl	70.0			26-79	%REC	1	10/23/2019 08:00
Surr: 2-Fluorophenol	39.1			13-56	%REC	1	10/23/2019 08:00
Surr: 4-Terphenyl-d14	67.4			43-106	%REC	1	10/23/2019 08:00
Surr: Nitrobenzene-d5	72.3			29-80	%REC	1	10/23/2019 08:00
Surr: Phenol-d6	21.9			10-35	%REC	1	10/23/2019 08:00
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO			Analyst: WH	
GRO (C6-C10)	U		25	100	µg/L	1	10/25/2019 18:23
Surr: Toluene-d8	82.8			70-130	%REC	1	10/25/2019 18:23
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: WH	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 22:09
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/28/2019 22:09
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 22:09
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/28/2019 22:09
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 22:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: Field Blank
Collection Date: 10/17/2019 12:10 PM

Work Order: 19101554
Lab ID: 19101554-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/28/2019 22:09
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/28/2019 22:09
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/28/2019 22:09
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/28/2019 22:09
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/28/2019 22:09
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/28/2019 22:09
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 22:09
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/28/2019 22:09
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/28/2019 22:09
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/28/2019 22:09
2-Butanone	U		0.52	5.0	µg/L	1	10/28/2019 22:09
2-Hexanone	U		0.59	5.0	µg/L	1	10/28/2019 22:09
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/28/2019 22:09
Acetone	3.1	J	1.1	10	µg/L	1	10/28/2019 22:09
Benzene	U		0.46	1.0	µg/L	1	10/28/2019 22:09
Bromochloromethane	U		0.45	1.0	µg/L	1	10/28/2019 22:09
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/28/2019 22:09
Bromoform	U		0.56	1.0	µg/L	1	10/28/2019 22:09
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 18:23
Carbon disulfide	U		0.49	1.0	µg/L	1	10/28/2019 22:09
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/28/2019 22:09
Chlorobenzene	U		0.40	1.0	µg/L	1	10/28/2019 22:09
Chloroethane	U		0.68	1.0	µg/L	1	10/28/2019 22:09
Chloroform	U		0.46	1.0	µg/L	1	10/28/2019 22:09
Chloromethane	U		0.83	1.0	µg/L	1	10/28/2019 22:09
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/28/2019 22:09
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/28/2019 22:09
Cyclohexane	U		0.63	2.0	µg/L	1	10/28/2019 22:09
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/28/2019 22:09
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/28/2019 22:09
Ethylbenzene	U		0.34	1.0	µg/L	1	10/28/2019 22:09
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/28/2019 22:09
m,p-Xylene	U		0.81	2.0	µg/L	1	10/28/2019 22:09
Methyl acetate	U		0.59	2.0	µg/L	1	10/28/2019 22:09
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/28/2019 22:09
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/28/2019 22:09
Methylene chloride	U		0.86	5.0	µg/L	1	10/28/2019 22:09
o-Xylene	U		0.31	1.0	µg/L	1	10/28/2019 22:09
Styrene	U		0.33	1.0	µg/L	1	10/28/2019 22:09
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/28/2019 22:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: Field Blank
Collection Date: 10/17/2019 12:10 PM

Work Order: 19101554
Lab ID: 19101554-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	U		0.45	1.0	µg/L	1	10/28/2019 22:09
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/28/2019 22:09
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/28/2019 22:09
Trichloroethene	U		0.43	1.0	µg/L	1	10/28/2019 22:09
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/28/2019 22:09
Vinyl chloride	U		0.53	1.0	µg/L	1	10/28/2019 22:09
Surr: 1,2-Dichloroethane-d4	102			75-120	%REC	1	10/25/2019 18:23
Surr: 1,2-Dichloroethane-d4	102			75-120	%REC	1	10/28/2019 22:09
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	10/25/2019 18:23
Surr: 4-Bromofluorobenzene	96.8			80-110	%REC	1	10/28/2019 22:09
Surr: Dibromofluoromethane	98.7			85-115	%REC	1	10/25/2019 18:23
Surr: Dibromofluoromethane	96.4			85-115	%REC	1	10/28/2019 22:09
Surr: Toluene-d8	89.8			85-110	%REC	1	10/25/2019 18:23
Surr: Toluene-d8	98.8			85-110	%REC	1	10/28/2019 22:09

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-37-39
Collection Date: 10/17/2019 12:34 PM

Work Order: 19101554
Lab ID: 19101554-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		29	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1221	U		29	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1232	U		29	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1242	U		29	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1248	U		29	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1254	U		24	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1260	U		24	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1262	U		24	85	µg/Kg-dry	1	10/30/2019 07:04
Aroclor 1268	U		24	85	µg/Kg-dry	1	10/30/2019 07:04
Surr: Decachlorobiphenyl	90.6			40-140	%REC	1	10/30/2019 07:04
Surr: Tetrachloro-m-xylene	79.5			45-124	%REC	1	10/30/2019 07:04
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	9.5		0.059	0.49	mg/Kg-dry	1	10/30/2019 20:47
Barium	110		0.45	0.49	mg/Kg-dry	1	10/30/2019 20:47
Cadmium	0.033	J	0.029	0.20	mg/Kg-dry	1	10/30/2019 20:47
Chromium	12		0.22	0.49	mg/Kg-dry	1	10/30/2019 20:47
Lead	13		0.24	0.49	mg/Kg-dry	1	10/30/2019 20:47
Selenium	U		0.45	0.49	mg/Kg-dry	1	10/30/2019 20:47
Silver	U		0.065	0.49	mg/Kg-dry	1	10/30/2019 20:47
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/23/19		Analyst: RM
DRO (C10-C21)	U		1.9	6.4	mg/Kg-dry	1	10/26/2019 09:15
ORO (C21-C35)	U		2.2	6.4	mg/Kg-dry	1	10/26/2019 09:15
Surr: 4-Terphenyl-d14	75.6			25-137	%REC	1	10/26/2019 09:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.8	41	µg/Kg-dry	1	10/25/2019 05:47
1,2,4,5-Tetrachlorobenzene	U		33	420	µg/Kg-dry	1	10/25/2019 05:47
1,4-Dioxane	U		30	210	µg/Kg-dry	1	10/25/2019 05:47
2,2'-Oxybis(1-chloropropane)	U		9.8	41	µg/Kg-dry	1	10/25/2019 05:47
2,3,4,6-Tetrachlorophenol	U		11	84	µg/Kg-dry	1	10/25/2019 05:47
2,4,5-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
2,4,6-Trichlorophenol	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
2,4-Dichlorophenol	U		8.8	41	µg/Kg-dry	1	10/25/2019 05:47
2,4-Dimethylphenol	U		8.5	41	µg/Kg-dry	1	10/25/2019 05:47
2,4-Dinitrophenol	U		23	41	µg/Kg-dry	1	10/25/2019 05:47
2,4-Dinitrotoluene	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
2,6-Dinitrotoluene	U		6.9	41	µg/Kg-dry	1	10/25/2019 05:47
2-Chloronaphthalene	U		5.8	8.4	µg/Kg-dry	1	10/25/2019 05:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-37-39
Collection Date: 10/17/2019 12:34 PM

Work Order: 19101554
Lab ID: 19101554-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		13	41	µg/Kg-dry	1	10/25/2019 05:47
2-Methylnaphthalene	U		4.3	8.4	µg/Kg-dry	1	10/25/2019 05:47
2-Methylphenol	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
2-Nitroaniline	U		9.6	41	µg/Kg-dry	1	10/25/2019 05:47
2-Nitrophenol	U		12	41	µg/Kg-dry	1	10/25/2019 05:47
3&4-Methylphenol	U		8.4	41	µg/Kg-dry	1	10/25/2019 05:47
3,3'-Dichlorobenzidine	U		6.2	210	µg/Kg-dry	1	10/25/2019 05:47
3-Nitroaniline	U		9.6	41	µg/Kg-dry	1	10/25/2019 05:47
4,6-Dinitro-2-methylphenol	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
4-Bromophenyl phenyl ether	U		11	41	µg/Kg-dry	1	10/25/2019 05:47
4-Chloro-3-methylphenol	U		12	41	µg/Kg-dry	1	10/25/2019 05:47
4-Chloroaniline	U		6.6	84	µg/Kg-dry	1	10/25/2019 05:47
4-Chlorophenyl phenyl ether	U		12	41	µg/Kg-dry	1	10/25/2019 05:47
4-Nitroaniline	U		65	210	µg/Kg-dry	1	10/25/2019 05:47
4-Nitrophenol	U		37	41	µg/Kg-dry	1	10/25/2019 05:47
Acenaphthene	U		6.1	8.4	µg/Kg-dry	1	10/25/2019 05:47
Acenaphthylene	U		7.3	8.4	µg/Kg-dry	1	10/25/2019 05:47
Acetophenone	U		6.6	41	µg/Kg-dry	1	10/25/2019 05:47
Anthracene	U		5.9	8.4	µg/Kg-dry	1	10/25/2019 05:47
Atrazine	U		6.6	41	µg/Kg-dry	1	10/25/2019 05:47
Benzaldehyde	U		64	84	µg/Kg-dry	1	10/25/2019 05:47
Benzo(a)anthracene	U		7.2	8.4	µg/Kg-dry	1	10/25/2019 05:47
Benzo(a)pyrene	U		5.1	8.4	µg/Kg-dry	1	10/25/2019 05:47
Benzo(b)fluoranthene	U		6.2	8.4	µg/Kg-dry	1	10/25/2019 05:47
Benzo(g,h,i)perylene	U		6.4	8.4	µg/Kg-dry	1	10/25/2019 05:47
Benzo(k)fluoranthene	U		6.3	8.4	µg/Kg-dry	1	10/25/2019 05:47
Bis(2-chloroethoxy)methane	U		4.0	41	µg/Kg-dry	1	10/25/2019 05:47
Bis(2-chloroethyl)ether	U		12	41	µg/Kg-dry	1	10/25/2019 05:47
Bis(2-ethylhexyl)phthalate	U		7.3	41	µg/Kg-dry	1	10/25/2019 05:47
Butyl benzyl phthalate	U		7.1	41	µg/Kg-dry	1	10/25/2019 05:47
Caprolactam	U		14	41	µg/Kg-dry	1	10/25/2019 05:47
Carbazole	U		4.5	41	µg/Kg-dry	1	10/25/2019 05:47
Chrysene	U		6.8	8.4	µg/Kg-dry	1	10/25/2019 05:47
Dibenzo(a,h)anthracene	U		4.5	8.4	µg/Kg-dry	1	10/25/2019 05:47
Dibenzofuran	U		6.2	41	µg/Kg-dry	1	10/25/2019 05:47
Diethyl phthalate	U		6.4	41	µg/Kg-dry	1	10/25/2019 05:47
Dimethyl phthalate	U		8.2	41	µg/Kg-dry	1	10/25/2019 05:47
Di-n-butyl phthalate	U		7.7	41	µg/Kg-dry	1	10/25/2019 05:47
Di-n-octyl phthalate	U		8.0	41	µg/Kg-dry	1	10/25/2019 05:47
Fluoranthene	U		4.0	8.4	µg/Kg-dry	1	10/25/2019 05:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-37-39
Collection Date: 10/17/2019 12:34 PM

Work Order: 19101554
Lab ID: 19101554-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		6.1	8.4	µg/Kg-dry	1	10/25/2019 05:47
Hexachlorobenzene	U		12	41	µg/Kg-dry	1	10/25/2019 05:47
Hexachlorobutadiene	U		23	41	µg/Kg-dry	1	10/25/2019 05:47
Hexachlorocyclopentadiene	U		14	41	µg/Kg-dry	1	10/25/2019 05:47
Hexachloroethane	U		17	41	µg/Kg-dry	1	10/25/2019 05:47
Indeno(1,2,3-cd)pyrene	U		5.8	8.4	µg/Kg-dry	1	10/25/2019 05:47
Isophorone	U		8.2	210	µg/Kg-dry	1	10/25/2019 05:47
Naphthalene	U		5.3	8.4	µg/Kg-dry	1	10/25/2019 05:47
Nitrobenzene	U		14	210	µg/Kg-dry	1	10/25/2019 05:47
N-Nitrosodi-n-propylamine	U		6.9	41	µg/Kg-dry	1	10/25/2019 05:47
N-Nitrosodiphenylamine	U		4.0	41	µg/Kg-dry	1	10/25/2019 05:47
Pentachlorophenol	U		15	41	µg/Kg-dry	1	10/25/2019 05:47
Phenanthrene	U		3.9	8.4	µg/Kg-dry	1	10/25/2019 05:47
Phenol	U		10	41	µg/Kg-dry	1	10/25/2019 05:47
Pyrene	U		1.5	8.4	µg/Kg-dry	1	10/25/2019 05:47
Surr: 2,4,6-Tribromophenol	71.8			38-92	%REC	1	10/25/2019 05:47
Surr: 2-Fluorobiphenyl	90.3			44-107	%REC	1	10/25/2019 05:47
Surr: 2-Fluorophenol	91.1			37-109	%REC	1	10/25/2019 05:47
Surr: 4-Terphenyl-d14	81.0			52-123	%REC	1	10/25/2019 05:47
Surr: Nitrobenzene-d5	98.5	S		41-94	%REC	1	10/25/2019 05:47
Surr: Phenol-d6	92.9			28-111	%REC	1	10/25/2019 05:47
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,700	6,700	µg/Kg-dry	1	10/26/2019 04:01
Surr: Toluene-d8	85.8			70-130	%REC	1	10/26/2019 04:01
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.77	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,1,2,2-Tetrachloroethane	U		0.62	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,1,2-Trichloroethane	U		0.65	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,1,2-Trichlorotrifluoroethane	U		1.1	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,1-Dichloroethane	U		0.60	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,1-Dichloroethene	U		0.96	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2,3-Trichlorobenzene	U		1.8	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2,4-Trichlorobenzene	U		1.1	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2-Dibromo-3-chloropropane	U		0.97	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2-Dibromoethane	U		0.35	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2-Dichlorobenzene	U		0.68	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2-Dichloroethane	U		0.55	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,2-Dichloropropane	U		0.43	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
1,3-Dichlorobenzene	U		0.59	4.9	µg/Kg-dry	0.754	10/27/2019 23:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-37-39
Collection Date: 10/17/2019 12:34 PM

Work Order: 19101554
Lab ID: 19101554-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.62	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
2-Butanone	U		5.0	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
2-Hexanone	U		1.8	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
4-Methyl-2-pentanone	U		1.8	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Acetone	U		4.5	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Benzene	U		0.51	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Bromochloromethane	U		0.53	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Bromodichloromethane	U		0.59	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Bromoform	U		0.49	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Bromomethane	U		2.4	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Carbon disulfide	U		0.58	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Carbon tetrachloride	U		0.98	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Chlorobenzene	U		0.61	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Chloroethane	U		1.9	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Chloroform	U		0.80	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Chloromethane	U		0.98	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
cis-1,2-Dichloroethene	U		0.53	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
cis-1,3-Dichloropropene	U		0.59	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Cyclohexane	U		1.7	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Dibromochloromethane	U		0.50	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Dichlorodifluoromethane	U		2.4	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Ethylbenzene	U		0.85	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Isopropylbenzene	U		0.83	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
m,p-Xylene	U		2.1	2.4	µg/Kg-dry	0.754	10/27/2019 23:27
Methyl acetate	U		1.2	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Methyl tert-butyl ether	U		0.59	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Methylcyclohexane	U		1.5	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
Methylene chloride	U		6.0	9.8	µg/Kg-dry	0.754	10/27/2019 23:27
o-Xylene	U		1.2	2.4	µg/Kg-dry	0.754	10/27/2019 23:27
Styrene	U		0.73	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Tetrachloroethene	U		0.87	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Toluene	U		0.84	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
trans-1,2-Dichloroethene	U		0.49	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
trans-1,3-Dichloropropene	U		0.47	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Trichloroethene	U		0.70	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Trichlorofluoromethane	U		0.69	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Vinyl chloride	U		0.68	4.9	µg/Kg-dry	0.754	10/27/2019 23:27
Surr: 1,2-Dichloroethane-d4	112			83-132	%REC	0.754	10/27/2019 23:27
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.754	10/27/2019 23:27
Surr: Dibromofluoromethane	55.1	S		77-125	%REC	0.754	10/27/2019 23:27

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB07-37-39
Collection Date: 10/17/2019 12:34 PM

Work Order: 19101554
Lab ID: 19101554-17
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	93.2			86-108	%REC	0.754	10/27/2019 23:27
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	23		0.10	0.10	% of sample	1	10/22/2019 13:14

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GW
Collection Date: 10/17/2019 12:52 PM

Work Order: 19101554
Lab ID: 19101554-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082			Prep: SW3511 / 10/28/19	Analyst: KB
Aroclor 1016	U		0.090	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1221	U		0.090	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1232	U		0.090	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1242	U		0.090	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1248	U		0.090	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1254	U		0.091	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1260	U		0.091	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1262	U		0.091	0.20	µg/L	1	10/28/2019 18:23
Aroclor 1268	U		0.091	0.20	µg/L	1	10/28/2019 18:23
Surr: Decachlorobiphenyl	94.9			30-150	%REC	1	10/28/2019 18:23
Surr: Tetrachloro-m-xylene	73.9			50-150	%REC	1	10/28/2019 18:23
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	0.029		0.00019	0.0050	mg/L	1	10/29/2019 20:21
Barium	0.19		0.0020	0.0050	mg/L	1	10/29/2019 20:21
Cadmium	0.00019	J	0.00015	0.0020	mg/L	1	10/29/2019 20:21
Chromium	0.037		0.00061	0.0050	mg/L	1	10/29/2019 20:21
Lead	0.062		0.00072	0.0050	mg/L	1	10/29/2019 20:21
Selenium	0.0041	J	0.00048	0.0050	mg/L	1	10/29/2019 20:21
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:21
METALS BY ICP-MS (DISSOLVED)							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	0.0063		0.00019	0.0050	mg/L	1	10/29/2019 20:19
Barium	0.10		0.0020	0.0050	mg/L	1	10/29/2019 20:19
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:19
Chromium	0.0074		0.00061	0.0050	mg/L	1	10/29/2019 20:19
Lead	0.0082		0.00072	0.0050	mg/L	1	10/29/2019 20:19
Selenium	0.00069	J	0.00048	0.0050	mg/L	1	10/29/2019 20:19
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:19
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270			Prep: SW3510 / 10/21/19	Analyst: RM
DRO (C10-C21)	U		0.013	0.10	mg/L	1	10/26/2019 12:35
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 12:35
Surr: 4-Terphenyl-d14	61.0			23-120	%REC	1	10/26/2019 12:35
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D			Prep: SW3510 / 10/21/19	Analyst: RM
1,1'-Biphenyl	U		8.4	20	µg/L	1	10/23/2019 08:22
1,2,4,5-Tetrachlorobenzene	U		6.8	100	µg/L	1	10/23/2019 08:22
1,4-Dioxane	U		14	100	µg/L	1	10/23/2019 08:22
2,2'-Oxybis(1-chloropropane)	U		4.6	20	µg/L	1	10/23/2019 08:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GW
Collection Date: 10/17/2019 12:52 PM

Work Order: 19101554
Lab ID: 19101554-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2,3,4,6-Tetrachlorophenol	U		9.0	20	µg/L	1	10/23/2019 08:22
2,4,5-Trichlorophenol	U		3.4	20	µg/L	1	10/23/2019 08:22
2,4,6-Trichlorophenol	U		5.0	20	µg/L	1	10/23/2019 08:22
2,4-Dichlorophenol	U		7.0	20	µg/L	1	10/23/2019 08:22
2,4-Dimethylphenol	U		7.2	20	µg/L	1	10/23/2019 08:22
2,4-Dinitrophenol	U		52	100	µg/L	1	10/23/2019 08:22
2,4-Dinitrotoluene	U		8.4	20	µg/L	1	10/23/2019 08:22
2,6-Dinitrotoluene	U		6.6	20	µg/L	1	10/23/2019 08:22
2-Chloronaphthalene	U		1.5	2.0	µg/L	1	10/23/2019 08:22
2-Chlorophenol	U		4.6	20	µg/L	1	10/23/2019 08:22
2-Methylnaphthalene	U		1.3	2.0	µg/L	1	10/23/2019 08:22
2-Methylphenol	U		5.0	20	µg/L	1	10/23/2019 08:22
2-Nitroaniline	U		4.2	20	µg/L	1	10/23/2019 08:22
2-Nitrophenol	U		6.8	20	µg/L	1	10/23/2019 08:22
3&4-Methylphenol	U		4.2	20	µg/L	1	10/23/2019 08:22
3,3'-Dichlorobenzidine	U		9.2	100	µg/L	1	10/23/2019 08:22
3-Nitroaniline	U		13	20	µg/L	1	10/23/2019 08:22
4,6-Dinitro-2-methylphenol	U		5.4	20	µg/L	1	10/23/2019 08:22
4-Bromophenyl phenyl ether	U		6.6	20	µg/L	1	10/23/2019 08:22
4-Chloro-3-methylphenol	U		5.2	20	µg/L	1	10/23/2019 08:22
4-Chloroaniline	U		6.8	20	µg/L	1	10/23/2019 08:22
4-Chlorophenyl phenyl ether	U		6.2	20	µg/L	1	10/23/2019 08:22
4-Nitroaniline	U		11	20	µg/L	1	10/23/2019 08:22
4-Nitrophenol	U		4.8	100	µg/L	1	10/23/2019 08:22
Acenaphthene	U		1.6	2.0	µg/L	1	10/23/2019 08:22
Acenaphthylene	U		1.5	2.0	µg/L	1	10/23/2019 08:22
Acetophenone	U		7.4	20	µg/L	1	10/23/2019 08:22
Anthracene	U		0.56	2.0	µg/L	1	10/23/2019 08:22
Atrazine	U		7.0	20	µg/L	1	10/23/2019 08:22
Benzaldehyde	U		10	20	µg/L	1	10/23/2019 08:22
Benzo(a)anthracene	U		2.0	2.0	µg/L	1	10/23/2019 08:22
Benzo(a)pyrene	3.2		0.88	2.0	µg/L	1	10/23/2019 08:22
Benzo(b)fluoranthene	3.0		1.0	2.0	µg/L	1	10/23/2019 08:22
Benzo(g,h,i)perylene	3.0		0.60	2.0	µg/L	1	10/23/2019 08:22
Benzo(k)fluoranthene	2.0		0.96	2.0	µg/L	1	10/23/2019 08:22
Bis(2-chloroethoxy)methane	U		5.8	20	µg/L	1	10/23/2019 08:22
Bis(2-chloroethyl)ether	U		7.4	20	µg/L	1	10/23/2019 08:22
Bis(2-ethylhexyl)phthalate	U		8.0	20	µg/L	1	10/23/2019 08:22
Butyl benzyl phthalate	U		6.0	20	µg/L	1	10/23/2019 08:22
Caprolactam	U		19	100	µg/L	1	10/23/2019 08:22

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GW
Collection Date: 10/17/2019 12:52 PM

Work Order: 19101554
Lab ID: 19101554-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbazole	U		4.8	20	µg/L	1	10/23/2019 08:22
Chrysene	U		0.96	2.0	µg/L	1	10/23/2019 08:22
Dibenzo(a,h)anthracene	U		1.5	2.0	µg/L	1	10/23/2019 08:22
Dibenzofuran	U		4.6	20	µg/L	1	10/23/2019 08:22
Diethyl phthalate	U		3.4	20	µg/L	1	10/23/2019 08:22
Dimethyl phthalate	U		3.6	20	µg/L	1	10/23/2019 08:22
Di-n-butyl phthalate	U		4.2	20	µg/L	1	10/23/2019 08:22
Di-n-octyl phthalate	U		11	20	µg/L	1	10/23/2019 08:22
Fluoranthene	2.2		0.76	2.0	µg/L	1	10/23/2019 08:22
Fluorene	U		1.0	2.0	µg/L	1	10/23/2019 08:22
Hexachlorobenzene	U		8.8	20	µg/L	1	10/23/2019 08:22
Hexachlorobutadiene	U		5.6	20	µg/L	1	10/23/2019 08:22
Hexachlorocyclopentadiene	U		22	100	µg/L	1	10/23/2019 08:22
Hexachloroethane	U		4.2	20	µg/L	1	10/23/2019 08:22
Indeno(1,2,3-cd)pyrene	3.8		1.3	2.0	µg/L	1	10/23/2019 08:22
Isophorone	U		6.8	100	µg/L	1	10/23/2019 08:22
Naphthalene	U		1.3	2.0	µg/L	1	10/23/2019 08:22
Nitrobenzene	U		5.2	20	µg/L	1	10/23/2019 08:22
N-Nitrosodi-n-propylamine	U		7.0	20	µg/L	1	10/23/2019 08:22
N-Nitrosodiphenylamine	U		9.8	20	µg/L	1	10/23/2019 08:22
Pentachlorophenol	U		19	100	µg/L	1	10/23/2019 08:22
Phenanthrene	U		1.6	2.0	µg/L	1	10/23/2019 08:22
Phenol	U		4.2	20	µg/L	1	10/23/2019 08:22
Pyrene	U		0.72	2.0	µg/L	1	10/23/2019 08:22
Surr: 2,4,6-Tribromophenol	74.6			27-83	%REC	1	10/23/2019 08:22
Surr: 2-Fluorobiphenyl	61.3			26-79	%REC	1	10/23/2019 08:22
Surr: 2-Fluorophenol	37.1			13-56	%REC	1	10/23/2019 08:22
Surr: 4-Terphenyl-d14	59.4			43-106	%REC	1	10/23/2019 08:22
Surr: Nitrobenzene-d5	68.4			29-80	%REC	1	10/23/2019 08:22
Surr: Phenol-d6	21.6			10-35	%REC	1	10/23/2019 08:22
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO			Analyst: WH	
GRO (C6-C10)	U		25	100	µg/L	1	10/25/2019 22:05
Surr: Toluene-d8	84.2			70-130	%REC	1	10/25/2019 22:05
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: WH	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:35
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/28/2019 23:35
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:35
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/28/2019 23:35
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GW
Collection Date: 10/17/2019 12:52 PM

Work Order: 19101554
Lab ID: 19101554-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/28/2019 23:35
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/28/2019 23:35
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/28/2019 23:35
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/28/2019 23:35
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/28/2019 23:35
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/28/2019 23:35
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:35
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/28/2019 23:35
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/28/2019 23:35
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:35
2-Butanone	0.63	J	0.52	5.0	µg/L	1	10/28/2019 23:35
2-Hexanone	U		0.59	5.0	µg/L	1	10/28/2019 23:35
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/28/2019 23:35
Acetone	5.4	J	1.1	10	µg/L	1	10/28/2019 23:35
Benzene	U		0.46	1.0	µg/L	1	10/28/2019 23:35
Bromochloromethane	U		0.45	1.0	µg/L	1	10/28/2019 23:35
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/28/2019 23:35
Bromoform	U		0.56	1.0	µg/L	1	10/28/2019 23:35
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 22:05
Carbon disulfide	U		0.49	1.0	µg/L	1	10/28/2019 23:35
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/28/2019 23:35
Chlorobenzene	U		0.40	1.0	µg/L	1	10/28/2019 23:35
Chloroethane	U		0.68	1.0	µg/L	1	10/28/2019 23:35
Chloroform	3.6		0.46	1.0	µg/L	1	10/28/2019 23:35
Chloromethane	U		0.83	1.0	µg/L	1	10/28/2019 23:35
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/28/2019 23:35
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/28/2019 23:35
Cyclohexane	U		0.63	2.0	µg/L	1	10/28/2019 23:35
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/28/2019 23:35
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/28/2019 23:35
Ethylbenzene	U		0.34	1.0	µg/L	1	10/28/2019 23:35
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:35
m,p-Xylene	U		0.81	2.0	µg/L	1	10/28/2019 23:35
Methyl acetate	U		0.59	2.0	µg/L	1	10/28/2019 23:35
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/28/2019 23:35
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/28/2019 23:35
Methylene chloride	U		0.86	5.0	µg/L	1	10/28/2019 23:35
o-Xylene	U		0.31	1.0	µg/L	1	10/28/2019 23:35
Styrene	U		0.33	1.0	µg/L	1	10/28/2019 23:35
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/28/2019 23:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GW
Collection Date: 10/17/2019 12:52 PM

Work Order: 19101554
Lab ID: 19101554-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	U		0.45	1.0	µg/L	1	10/28/2019 23:35
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/28/2019 23:35
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/28/2019 23:35
Trichloroethene	U		0.43	1.0	µg/L	1	10/28/2019 23:35
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/28/2019 23:35
Vinyl chloride	U		0.53	1.0	µg/L	1	10/28/2019 23:35
Surr: 1,2-Dichloroethane-d4	102			75-120	%REC	1	10/25/2019 22:05
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	10/28/2019 23:35
Surr: 4-Bromofluorobenzene	103			80-110	%REC	1	10/25/2019 22:05
Surr: 4-Bromofluorobenzene	96.2			80-110	%REC	1	10/28/2019 23:35
Surr: Dibromofluoromethane	95.1			85-115	%REC	1	10/25/2019 22:05
Surr: Dibromofluoromethane	101			85-115	%REC	1	10/28/2019 23:35
Surr: Toluene-d8	89.8			85-110	%REC	1	10/25/2019 22:05
Surr: Toluene-d8	96.7			85-110	%REC	1	10/28/2019 23:35

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GWD
Collection Date: 10/17/2019 01:00 PM

Work Order: 19101554
Lab ID: 19101554-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082			Prep: SW3511 / 10/28/19	Analyst: KB
Aroclor 1016	U		0.090	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1221	U		0.090	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1232	U		0.090	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1242	U		0.090	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1248	U		0.090	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1254	U		0.091	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1260	U		0.091	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1262	U		0.091	0.20	µg/L	1	10/28/2019 18:37
Aroclor 1268	U		0.091	0.20	µg/L	1	10/28/2019 18:37
Surr: Decachlorobiphenyl	104			30-150	%REC	1	10/28/2019 18:37
Surr: Tetrachloro-m-xylene	77.9			50-150	%REC	1	10/28/2019 18:37
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	0.042		0.00019	0.0050	mg/L	1	10/29/2019 20:27
Barium	0.37		0.0020	0.0050	mg/L	1	10/29/2019 20:27
Cadmium	0.00051	J	0.00015	0.0020	mg/L	1	10/29/2019 20:27
Chromium	0.075		0.00061	0.0050	mg/L	1	10/29/2019 20:27
Lead	0.16		0.00072	0.0050	mg/L	1	10/29/2019 20:27
Selenium	0.0062		0.00048	0.0050	mg/L	1	10/29/2019 20:27
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:27
METALS BY ICP-MS (DISSOLVED)							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	0.0060		0.00019	0.0050	mg/L	1	10/29/2019 20:26
Barium	0.10		0.0020	0.0050	mg/L	1	10/29/2019 20:26
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:26
Chromium	0.0067		0.00061	0.0050	mg/L	1	10/29/2019 20:26
Lead	0.0073		0.00072	0.0050	mg/L	1	10/29/2019 20:26
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:26
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:26
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270			Prep: SW3510 / 10/21/19	Analyst: RM
DRO (C10-C21)	0.14		0.013	0.10	mg/L	1	10/26/2019 12:55
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 12:55
Surr: 4-Terphenyl-d14	66.5			23-120	%REC	1	10/26/2019 12:55
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D			Prep: SW3510 / 10/21/19	Analyst: RM
1,1'-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 08:43
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 08:43
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 08:43
2,2'-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 08:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GWD
Collection Date: 10/17/2019 01:00 PM

Work Order: 19101554
Lab ID: 19101554-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 08:43
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 08:43
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 08:43
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 08:43
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 08:43
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 08:43
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 08:43
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 08:43
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 08:43
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 08:43
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 08:43
2-Methylphenol	U		0.25	1.0	µg/L	1	10/23/2019 08:43
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 08:43
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 08:43
3&4-Methylphenol	U		0.21	1.0	µg/L	1	10/23/2019 08:43
3,3'-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 08:43
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 08:43
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 08:43
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 08:43
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 08:43
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 08:43
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 08:43
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 08:43
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 08:43
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 08:43
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 08:43
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 08:43
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 08:43
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 08:43
Benzaldehyde	U		0.52	1.0	µg/L	1	10/23/2019 08:43
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 08:43
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	10/23/2019 08:43
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 08:43
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	10/23/2019 08:43
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 08:43
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 08:43
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 08:43
Bis(2-ethylhexyl)phthalate	1.7		0.40	1.0	µg/L	1	10/23/2019 08:43
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 08:43
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 08:43

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GWD
Collection Date: 10/17/2019 01:00 PM

Work Order: 19101554
Lab ID: 19101554-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 08:43
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 08:43
Dibenzo(a,h)anthracene	U		0.073	0.10	µg/L	1	10/23/2019 08:43
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 08:43
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 08:43
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 08:43
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 08:43
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 08:43
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 08:43
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 08:43
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 08:43
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 08:43
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 08:43
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 08:43
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	10/23/2019 08:43
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 08:43
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 08:43
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 08:43
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 08:43
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 08:43
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 08:43
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 08:43
Phenol	U		0.21	1.0	µg/L	1	10/23/2019 08:43
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 08:43
Surr: 2,4,6-Tribromophenol	73.7			27-83	%REC	1	10/23/2019 08:43
Surr: 2-Fluorobiphenyl	61.7			26-79	%REC	1	10/23/2019 08:43
Surr: 2-Fluorophenol	35.7			13-56	%REC	1	10/23/2019 08:43
Surr: 4-Terphenyl-d14	59.2			43-106	%REC	1	10/23/2019 08:43
Surr: Nitrobenzene-d5	64.4			29-80	%REC	1	10/23/2019 08:43
Surr: Phenol-d6	20.5			10-35	%REC	1	10/23/2019 08:43
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO			Analyst: WH	
GRO (C6-C10)	U		25	100	µg/L	1	10/25/2019 22:22
Surr: Toluene-d8	84.4			70-130	%REC	1	10/25/2019 22:22
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: WH	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:17
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/28/2019 23:17
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:17
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/28/2019 23:17
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GWD
Collection Date: 10/17/2019 01:00 PM

Work Order: 19101554
Lab ID: 19101554-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/28/2019 23:17
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/28/2019 23:17
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/28/2019 23:17
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/28/2019 23:17
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/28/2019 23:17
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/28/2019 23:17
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:17
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/28/2019 23:17
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/28/2019 23:17
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:17
2-Butanone	0.68	J	0.52	5.0	µg/L	1	10/28/2019 23:17
2-Hexanone	U		0.59	5.0	µg/L	1	10/28/2019 23:17
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/28/2019 23:17
Acetone	5.2	J	1.1	10	µg/L	1	10/28/2019 23:17
Benzene	U		0.46	1.0	µg/L	1	10/28/2019 23:17
Bromochloromethane	U		0.45	1.0	µg/L	1	10/28/2019 23:17
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/28/2019 23:17
Bromoform	U		0.56	1.0	µg/L	1	10/28/2019 23:17
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 22:22
Carbon disulfide	U		0.49	1.0	µg/L	1	10/28/2019 23:17
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/28/2019 23:17
Chlorobenzene	U		0.40	1.0	µg/L	1	10/28/2019 23:17
Chloroethane	U		0.68	1.0	µg/L	1	10/28/2019 23:17
Chloroform	3.8		0.46	1.0	µg/L	1	10/28/2019 23:17
Chloromethane	U		0.83	1.0	µg/L	1	10/28/2019 23:17
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/28/2019 23:17
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/28/2019 23:17
Cyclohexane	U		0.63	2.0	µg/L	1	10/28/2019 23:17
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/28/2019 23:17
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/28/2019 23:17
Ethylbenzene	U		0.34	1.0	µg/L	1	10/28/2019 23:17
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:17
m,p-Xylene	U		0.81	2.0	µg/L	1	10/28/2019 23:17
Methyl acetate	U		0.59	2.0	µg/L	1	10/28/2019 23:17
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/28/2019 23:17
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/28/2019 23:17
Methylene chloride	U		0.86	5.0	µg/L	1	10/28/2019 23:17
o-Xylene	U		0.31	1.0	µg/L	1	10/28/2019 23:17
Styrene	U		0.33	1.0	µg/L	1	10/28/2019 23:17
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/28/2019 23:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB04-GWD
Collection Date: 10/17/2019 01:00 PM

Work Order: 19101554
Lab ID: 19101554-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	U		0.45	1.0	µg/L	1	10/28/2019 23:17
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/28/2019 23:17
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/28/2019 23:17
Trichloroethene	U		0.43	1.0	µg/L	1	10/28/2019 23:17
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/28/2019 23:17
Vinyl chloride	U		0.53	1.0	µg/L	1	10/28/2019 23:17
Surr: 1,2-Dichloroethane-d4	104			75-120	%REC	1	10/25/2019 22:22
Surr: 1,2-Dichloroethane-d4	103			75-120	%REC	1	10/28/2019 23:17
Surr: 4-Bromofluorobenzene	101			80-110	%REC	1	10/25/2019 22:22
Surr: 4-Bromofluorobenzene	98.4			80-110	%REC	1	10/28/2019 23:17
Surr: Dibromofluoromethane	95.4			85-115	%REC	1	10/25/2019 22:22
Surr: Dibromofluoromethane	99.0			85-115	%REC	1	10/28/2019 23:17
Surr: Toluene-d8	88.8			85-110	%REC	1	10/25/2019 22:22
Surr: Toluene-d8	99.7			85-110	%REC	1	10/28/2019 23:17

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: ER
Collection Date: 10/17/2019 01:30 PM

Work Order: 19101554
Lab ID: 19101554-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082			Prep: SW3511 / 10/28/19	Analyst: KB
Aroclor 1016	U		0.090	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1221	U		0.090	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1232	U		0.090	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1242	U		0.090	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1248	U		0.090	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1254	U		0.091	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1260	U		0.091	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1262	U		0.091	0.20	µg/L	1	10/28/2019 18:51
Aroclor 1268	U		0.091	0.20	µg/L	1	10/28/2019 18:51
Surr: Decachlorobiphenyl	101			30-150	%REC	1	10/28/2019 18:51
Surr: Tetrachloro-m-xylene	76.2			50-150	%REC	1	10/28/2019 18:51
METALS BY ICP-MS							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:31
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:31
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:31
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:31
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:31
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:31
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:31
METALS BY ICP-MS (DISSOLVED)							
			Method: SW6020A			Prep: SW3015A / 10/29/19	Analyst: STP
Arsenic	U		0.00019	0.0050	mg/L	1	10/29/2019 20:29
Barium	U		0.0020	0.0050	mg/L	1	10/29/2019 20:29
Cadmium	U		0.00015	0.0020	mg/L	1	10/29/2019 20:29
Chromium	U		0.00061	0.0050	mg/L	1	10/29/2019 20:29
Lead	U		0.00072	0.0050	mg/L	1	10/29/2019 20:29
Selenium	U		0.00048	0.0050	mg/L	1	10/29/2019 20:29
Silver	U		0.00084	0.0050	mg/L	1	10/29/2019 20:29
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270			Prep: SW3510 / 10/21/19	Analyst: RM
DRO (C10-C21)	U		0.013	0.10	mg/L	1	10/26/2019 01:15
ORO (C21-C35)	U		0.027	0.10	mg/L	1	10/26/2019 01:15
Surr: 4-Terphenyl-d14	64.0			23-120	%REC	1	10/26/2019 01:15
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D			Prep: SW3510 / 10/21/19	Analyst: RM
1,1'-Biphenyl	U		0.42	1.0	µg/L	1	10/23/2019 09:05
1,2,4,5-Tetrachlorobenzene	U		0.34	5.0	µg/L	1	10/23/2019 09:05
1,4-Dioxane	U		0.72	5.0	µg/L	1	10/23/2019 09:05
2,2'-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	10/23/2019 09:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: ER
Collection Date: 10/17/2019 01:30 PM

Work Order: 19101554
Lab ID: 19101554-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2,3,4,6-Tetrachlorophenol	U		0.45	1.0	µg/L	1	10/23/2019 09:05
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	10/23/2019 09:05
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	10/23/2019 09:05
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	10/23/2019 09:05
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	10/23/2019 09:05
2,4-Dinitrophenol	U		2.6	5.0	µg/L	1	10/23/2019 09:05
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	10/23/2019 09:05
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	10/23/2019 09:05
2-Chloronaphthalene	U		0.075	0.10	µg/L	1	10/23/2019 09:05
2-Chlorophenol	U		0.23	1.0	µg/L	1	10/23/2019 09:05
2-Methylnaphthalene	U		0.065	0.10	µg/L	1	10/23/2019 09:05
2-Methylphenol	0.90	J	0.25	1.0	µg/L	1	10/23/2019 09:05
2-Nitroaniline	U		0.21	1.0	µg/L	1	10/23/2019 09:05
2-Nitrophenol	U		0.34	1.0	µg/L	1	10/23/2019 09:05
3&4-Methylphenol	1.6		0.21	1.0	µg/L	1	10/23/2019 09:05
3,3'-Dichlorobenzidine	U		0.46	5.0	µg/L	1	10/23/2019 09:05
3-Nitroaniline	U		0.64	1.0	µg/L	1	10/23/2019 09:05
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	10/23/2019 09:05
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	10/23/2019 09:05
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	10/23/2019 09:05
4-Chloroaniline	U		0.34	1.0	µg/L	1	10/23/2019 09:05
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	10/23/2019 09:05
4-Nitroaniline	U		0.57	1.0	µg/L	1	10/23/2019 09:05
4-Nitrophenol	U		0.24	5.0	µg/L	1	10/23/2019 09:05
Acenaphthene	U		0.081	0.10	µg/L	1	10/23/2019 09:05
Acenaphthylene	U		0.075	0.10	µg/L	1	10/23/2019 09:05
Acetophenone	U		0.37	1.0	µg/L	1	10/23/2019 09:05
Anthracene	U		0.028	0.10	µg/L	1	10/23/2019 09:05
Atrazine	U		0.35	1.0	µg/L	1	10/23/2019 09:05
Benzaldehyde	0.68	J	0.52	1.0	µg/L	1	10/23/2019 09:05
Benzo(a)anthracene	U		0.099	0.10	µg/L	1	10/23/2019 09:05
Benzo(a)pyrene	U		0.044	0.10	µg/L	1	10/23/2019 09:05
Benzo(b)fluoranthene	U		0.051	0.10	µg/L	1	10/23/2019 09:05
Benzo(g,h,i)perylene	U		0.030	0.10	µg/L	1	10/23/2019 09:05
Benzo(k)fluoranthene	U		0.048	0.10	µg/L	1	10/23/2019 09:05
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	10/23/2019 09:05
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	10/23/2019 09:05
Bis(2-ethylhexyl)phthalate	U		0.40	1.0	µg/L	1	10/23/2019 09:05
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	10/23/2019 09:05
Caprolactam	U		0.96	5.0	µg/L	1	10/23/2019 09:05

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: ER
Collection Date: 10/17/2019 01:30 PM

Work Order: 19101554
Lab ID: 19101554-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbazole	U		0.24	1.0	µg/L	1	10/23/2019 09:05
Chrysene	U		0.048	0.10	µg/L	1	10/23/2019 09:05
Dibenzo(a,h)anthracene	U		0.073	0.10	µg/L	1	10/23/2019 09:05
Dibenzofuran	U		0.23	1.0	µg/L	1	10/23/2019 09:05
Diethyl phthalate	U		0.17	1.0	µg/L	1	10/23/2019 09:05
Dimethyl phthalate	U		0.18	1.0	µg/L	1	10/23/2019 09:05
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	10/23/2019 09:05
Di-n-octyl phthalate	U		0.53	1.0	µg/L	1	10/23/2019 09:05
Fluoranthene	U		0.038	0.10	µg/L	1	10/23/2019 09:05
Fluorene	U		0.051	0.10	µg/L	1	10/23/2019 09:05
Hexachlorobenzene	U		0.44	1.0	µg/L	1	10/23/2019 09:05
Hexachlorobutadiene	U		0.28	1.0	µg/L	1	10/23/2019 09:05
Hexachlorocyclopentadiene	U		1.1	5.0	µg/L	1	10/23/2019 09:05
Hexachloroethane	U		0.21	1.0	µg/L	1	10/23/2019 09:05
Indeno(1,2,3-cd)pyrene	U		0.067	0.10	µg/L	1	10/23/2019 09:05
Isophorone	U		0.34	5.0	µg/L	1	10/23/2019 09:05
Naphthalene	U		0.067	0.10	µg/L	1	10/23/2019 09:05
Nitrobenzene	U		0.26	1.0	µg/L	1	10/23/2019 09:05
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	10/23/2019 09:05
N-Nitrosodiphenylamine	U		0.49	1.0	µg/L	1	10/23/2019 09:05
Pentachlorophenol	U		0.97	5.0	µg/L	1	10/23/2019 09:05
Phenanthrene	U		0.081	0.10	µg/L	1	10/23/2019 09:05
Phenol	3.0		0.21	1.0	µg/L	1	10/23/2019 09:05
Pyrene	U		0.036	0.10	µg/L	1	10/23/2019 09:05
Surr: 2,4,6-Tribromophenol	75.3			27-83	%REC	1	10/23/2019 09:05
Surr: 2-Fluorobiphenyl	64.7			26-79	%REC	1	10/23/2019 09:05
Surr: 2-Fluorophenol	35.3			13-56	%REC	1	10/23/2019 09:05
Surr: 4-Terphenyl-d14	62.0			43-106	%REC	1	10/23/2019 09:05
Surr: Nitrobenzene-d5	67.6			29-80	%REC	1	10/23/2019 09:05
Surr: Phenol-d6	20.4			10-35	%REC	1	10/23/2019 09:05
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO			Analyst: WH	
GRO (C6-C10)	U		25	100	µg/L	1	10/25/2019 22:39
Surr: Toluene-d8	84.1			70-130	%REC	1	10/25/2019 22:39
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: WH	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:00
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/28/2019 23:00
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 23:00
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/28/2019 23:00
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: ER
Collection Date: 10/17/2019 01:30 PM

Work Order: 19101554
Lab ID: 19101554-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/28/2019 23:00
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/28/2019 23:00
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/28/2019 23:00
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/28/2019 23:00
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/28/2019 23:00
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/28/2019 23:00
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 23:00
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/28/2019 23:00
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/28/2019 23:00
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:00
2-Butanone	U		0.52	5.0	µg/L	1	10/28/2019 23:00
2-Hexanone	U		0.59	5.0	µg/L	1	10/28/2019 23:00
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/28/2019 23:00
Acetone	4.5	J	1.1	10	µg/L	1	10/28/2019 23:00
Benzene	U		0.46	1.0	µg/L	1	10/28/2019 23:00
Bromochloromethane	U		0.45	1.0	µg/L	1	10/28/2019 23:00
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/28/2019 23:00
Bromoform	U		0.56	1.0	µg/L	1	10/28/2019 23:00
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 22:39
Carbon disulfide	U		0.49	1.0	µg/L	1	10/28/2019 23:00
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/28/2019 23:00
Chlorobenzene	U		0.40	1.0	µg/L	1	10/28/2019 23:00
Chloroethane	U		0.68	1.0	µg/L	1	10/28/2019 23:00
Chloroform	U		0.46	1.0	µg/L	1	10/28/2019 23:00
Chloromethane	U		0.83	1.0	µg/L	1	10/28/2019 23:00
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/28/2019 23:00
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/28/2019 23:00
Cyclohexane	U		0.63	2.0	µg/L	1	10/28/2019 23:00
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/28/2019 23:00
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/28/2019 23:00
Ethylbenzene	U		0.34	1.0	µg/L	1	10/28/2019 23:00
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/28/2019 23:00
m,p-Xylene	U		0.81	2.0	µg/L	1	10/28/2019 23:00
Methyl acetate	U		0.59	2.0	µg/L	1	10/28/2019 23:00
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/28/2019 23:00
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/28/2019 23:00
Methylene chloride	U		0.86	5.0	µg/L	1	10/28/2019 23:00
o-Xylene	U		0.31	1.0	µg/L	1	10/28/2019 23:00
Styrene	U		0.33	1.0	µg/L	1	10/28/2019 23:00
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/28/2019 23:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: ER
Collection Date: 10/17/2019 01:30 PM

Work Order: 19101554
Lab ID: 19101554-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	U		0.45	1.0	µg/L	1	10/28/2019 23:00
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/28/2019 23:00
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/28/2019 23:00
Trichloroethene	U		0.43	1.0	µg/L	1	10/28/2019 23:00
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/28/2019 23:00
Vinyl chloride	U		0.53	1.0	µg/L	1	10/28/2019 23:00
Surr: 1,2-Dichloroethane-d4	101			75-120	%REC	1	10/25/2019 22:39
Surr: 1,2-Dichloroethane-d4	105			75-120	%REC	1	10/28/2019 23:00
Surr: 4-Bromofluorobenzene	102			80-110	%REC	1	10/25/2019 22:39
Surr: 4-Bromofluorobenzene	94.8			80-110	%REC	1	10/28/2019 23:00
Surr: Dibromofluoromethane	96.6			85-115	%REC	1	10/25/2019 22:39
Surr: Dibromofluoromethane	99.6			85-115	%REC	1	10/28/2019 23:00
Surr: Toluene-d8	91.0			85-110	%REC	1	10/25/2019 22:39
Surr: Toluene-d8	98.2			85-110	%REC	1	10/28/2019 23:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-01-03
Collection Date: 10/17/2019 02:20 PM

Work Order: 19101554
Lab ID: 19101554-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		27	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1221	U		27	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1232	U		27	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1242	U		27	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1248	U		27	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1254	U		22	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1260	U		22	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1262	U		22	80	µg/Kg-dry	1	10/30/2019 07:19
Aroclor 1268	U		22	80	µg/Kg-dry	1	10/30/2019 07:19
Surr: Decachlorobiphenyl	91.6			40-140	%REC	1	10/30/2019 07:19
Surr: Tetrachloro-m-xylene	79.4			45-124	%REC	1	10/30/2019 07:19
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	2.5		0.056	0.46	mg/Kg-dry	1	10/30/2019 20:49
Barium	100		0.43	0.46	mg/Kg-dry	1	10/30/2019 20:49
Cadmium	U		0.028	0.19	mg/Kg-dry	1	10/30/2019 20:49
Chromium	14		0.20	0.46	mg/Kg-dry	1	10/30/2019 20:49
Lead	7.3		0.22	0.46	mg/Kg-dry	1	10/30/2019 20:49
Selenium	U		0.43	0.46	mg/Kg-dry	1	10/30/2019 20:49
Silver	U		0.061	0.46	mg/Kg-dry	1	10/30/2019 20:49
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/23/19		Analyst: RM
DRO (C10-C21)	U		1.9	6.2	mg/Kg-dry	1	10/26/2019 15:36
ORO (C21-C35)	U		2.1	6.2	mg/Kg-dry	1	10/26/2019 15:36
Surr: 4-Terphenyl-d14	69.2			25-137	%REC	1	10/26/2019 15:36
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		6.6	40	µg/Kg-dry	1	10/25/2019 06:08
1,2,4,5-Tetrachlorobenzene	U		32	410	µg/Kg-dry	1	10/25/2019 06:08
1,4-Dioxane	U		29	200	µg/Kg-dry	1	10/25/2019 06:08
2,2'-Oxybis(1-chloropropane)	U		9.5	40	µg/Kg-dry	1	10/25/2019 06:08
2,3,4,6-Tetrachlorophenol	U		11	81	µg/Kg-dry	1	10/25/2019 06:08
2,4,5-Trichlorophenol	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
2,4,6-Trichlorophenol	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
2,4-Dichlorophenol	U		8.5	40	µg/Kg-dry	1	10/25/2019 06:08
2,4-Dimethylphenol	U		8.3	40	µg/Kg-dry	1	10/25/2019 06:08
2,4-Dinitrophenol	U		22	40	µg/Kg-dry	1	10/25/2019 06:08
2,4-Dinitrotoluene	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
2,6-Dinitrotoluene	U		6.7	40	µg/Kg-dry	1	10/25/2019 06:08
2-Chloronaphthalene	U		5.7	8.1	µg/Kg-dry	1	10/25/2019 06:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-01-03
Collection Date: 10/17/2019 02:20 PM

Work Order: 19101554
Lab ID: 19101554-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		13	40	µg/Kg-dry	1	10/25/2019 06:08
2-Methylnaphthalene	U		4.1	8.1	µg/Kg-dry	1	10/25/2019 06:08
2-Methylphenol	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
2-Nitroaniline	U		9.3	40	µg/Kg-dry	1	10/25/2019 06:08
2-Nitrophenol	U		12	40	µg/Kg-dry	1	10/25/2019 06:08
3&4-Methylphenol	U		8.1	40	µg/Kg-dry	1	10/25/2019 06:08
3,3'-Dichlorobenzidine	U		6.0	200	µg/Kg-dry	1	10/25/2019 06:08
3-Nitroaniline	U		9.3	40	µg/Kg-dry	1	10/25/2019 06:08
4,6-Dinitro-2-methylphenol	U		10	40	µg/Kg-dry	1	10/25/2019 06:08
4-Bromophenyl phenyl ether	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
4-Chloro-3-methylphenol	U		12	40	µg/Kg-dry	1	10/25/2019 06:08
4-Chloroaniline	U		6.4	81	µg/Kg-dry	1	10/25/2019 06:08
4-Chlorophenyl phenyl ether	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
4-Nitroaniline	U		63	200	µg/Kg-dry	1	10/25/2019 06:08
4-Nitrophenol	U		36	40	µg/Kg-dry	1	10/25/2019 06:08
Acenaphthene	U		5.9	8.1	µg/Kg-dry	1	10/25/2019 06:08
Acenaphthylene	U		7.0	8.1	µg/Kg-dry	1	10/25/2019 06:08
Acetophenone	U		6.3	40	µg/Kg-dry	1	10/25/2019 06:08
Anthracene	U		5.7	8.1	µg/Kg-dry	1	10/25/2019 06:08
Atrazine	U		6.4	40	µg/Kg-dry	1	10/25/2019 06:08
Benzaldehyde	U		62	81	µg/Kg-dry	1	10/25/2019 06:08
Benzo(a)anthracene	U		7.0	8.1	µg/Kg-dry	1	10/25/2019 06:08
Benzo(a)pyrene	U		5.0	8.1	µg/Kg-dry	1	10/25/2019 06:08
Benzo(b)fluoranthene	U		6.0	8.1	µg/Kg-dry	1	10/25/2019 06:08
Benzo(g,h,i)perylene	U		6.2	8.1	µg/Kg-dry	1	10/25/2019 06:08
Benzo(k)fluoranthene	U		6.1	8.1	µg/Kg-dry	1	10/25/2019 06:08
Bis(2-chloroethoxy)methane	U		3.9	40	µg/Kg-dry	1	10/25/2019 06:08
Bis(2-chloroethyl)ether	U		11	40	µg/Kg-dry	1	10/25/2019 06:08
Bis(2-ethylhexyl)phthalate	U		7.0	40	µg/Kg-dry	1	10/25/2019 06:08
Butyl benzyl phthalate	U		6.9	40	µg/Kg-dry	1	10/25/2019 06:08
Caprolactam	U		14	40	µg/Kg-dry	1	10/25/2019 06:08
Carbazole	U		4.4	40	µg/Kg-dry	1	10/25/2019 06:08
Chrysene	U		6.6	8.1	µg/Kg-dry	1	10/25/2019 06:08
Dibenzo(a,h)anthracene	U		4.4	8.1	µg/Kg-dry	1	10/25/2019 06:08
Dibenzofuran	U		6.0	40	µg/Kg-dry	1	10/25/2019 06:08
Diethyl phthalate	U		6.2	40	µg/Kg-dry	1	10/25/2019 06:08
Dimethyl phthalate	U		7.9	40	µg/Kg-dry	1	10/25/2019 06:08
Di-n-butyl phthalate	U		7.4	40	µg/Kg-dry	1	10/25/2019 06:08
Di-n-octyl phthalate	U		7.8	40	µg/Kg-dry	1	10/25/2019 06:08
Fluoranthene	U		3.9	8.1	µg/Kg-dry	1	10/25/2019 06:08

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-01-03
Collection Date: 10/17/2019 02:20 PM

Work Order: 19101554
Lab ID: 19101554-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		5.9	8.1	µg/Kg-dry	1	10/25/2019 06:08
Hexachlorobenzene	U		12	40	µg/Kg-dry	1	10/25/2019 06:08
Hexachlorobutadiene	U		22	40	µg/Kg-dry	1	10/25/2019 06:08
Hexachlorocyclopentadiene	U		14	40	µg/Kg-dry	1	10/25/2019 06:08
Hexachloroethane	U		17	40	µg/Kg-dry	1	10/25/2019 06:08
Indeno(1,2,3-cd)pyrene	U		5.6	8.1	µg/Kg-dry	1	10/25/2019 06:08
Isophorone	U		7.9	200	µg/Kg-dry	1	10/25/2019 06:08
Naphthalene	U		5.2	8.1	µg/Kg-dry	1	10/25/2019 06:08
Nitrobenzene	U		14	200	µg/Kg-dry	1	10/25/2019 06:08
N-Nitrosodi-n-propylamine	U		6.7	40	µg/Kg-dry	1	10/25/2019 06:08
N-Nitrosodiphenylamine	U		3.9	40	µg/Kg-dry	1	10/25/2019 06:08
Pentachlorophenol	U		15	40	µg/Kg-dry	1	10/25/2019 06:08
Phenanthrene	U		3.8	8.1	µg/Kg-dry	1	10/25/2019 06:08
Phenol	U		10	40	µg/Kg-dry	1	10/25/2019 06:08
Pyrene	U		1.5	8.1	µg/Kg-dry	1	10/25/2019 06:08
Surr: 2,4,6-Tribromophenol	70.3			38-92	%REC	1	10/25/2019 06:08
Surr: 2-Fluorobiphenyl	74.5			44-107	%REC	1	10/25/2019 06:08
Surr: 2-Fluorophenol	84.6			37-109	%REC	1	10/25/2019 06:08
Surr: 4-Terphenyl-d14	67.0			52-123	%REC	1	10/25/2019 06:08
Surr: Nitrobenzene-d5	81.2			41-94	%REC	1	10/25/2019 06:08
Surr: Phenol-d6	83.2			28-111	%REC	1	10/25/2019 06:08
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,600	6,600	µg/Kg-dry	1	10/26/2019 04:19
Surr: Toluene-d8	84.8			70-130	%REC	1	10/26/2019 04:19
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.81	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,1,2,2-Tetrachloroethane	U		0.65	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,1,2-Trichloroethane	U		0.68	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,1,2-Trichlorotrifluoroethane	U		1.1	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,1-Dichloroethane	U		0.63	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,1-Dichloroethene	U		1.0	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2,3-Trichlorobenzene	U		1.8	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2,4-Trichlorobenzene	U		1.1	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2-Dibromo-3-chloropropane	U		1.0	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2-Dibromoethane	U		0.37	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2-Dichlorobenzene	U		0.72	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2-Dichloroethane	U		0.57	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,2-Dichloropropane	U		0.45	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
1,3-Dichlorobenzene	U		0.62	5.1	µg/Kg-dry	0.813	10/27/2019 23:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-01-03
Collection Date: 10/17/2019 02:20 PM

Work Order: 19101554
Lab ID: 19101554-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.65	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
2-Butanone	U		5.2	10	µg/Kg-dry	0.813	10/27/2019 23:44
2-Hexanone	U		1.8	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
4-Methyl-2-pentanone	U		1.8	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Acetone	8.2	J	4.7	10	µg/Kg-dry	0.813	10/27/2019 23:44
Benzene	U		0.53	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Bromochloromethane	U		0.55	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Bromodichloromethane	U		0.61	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Bromoform	U		0.51	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Bromomethane	U		2.6	10	µg/Kg-dry	0.813	10/27/2019 23:44
Carbon disulfide	U		0.60	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Carbon tetrachloride	U		1.0	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Chlorobenzene	U		0.64	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Chloroethane	U		1.9	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Chloroform	U		0.84	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Chloromethane	U		1.0	10	µg/Kg-dry	0.813	10/27/2019 23:44
cis-1,2-Dichloroethene	U		0.55	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
cis-1,3-Dichloropropene	U		0.61	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Cyclohexane	U		1.7	10	µg/Kg-dry	0.813	10/27/2019 23:44
Dibromochloromethane	U		0.52	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Dichlorodifluoromethane	U		2.6	10	µg/Kg-dry	0.813	10/27/2019 23:44
Ethylbenzene	U		0.89	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Isopropylbenzene	U		0.87	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
m,p-Xylene	U		2.2	2.6	µg/Kg-dry	0.813	10/27/2019 23:44
Methyl acetate	U		1.2	10	µg/Kg-dry	0.813	10/27/2019 23:44
Methyl tert-butyl ether	U		0.62	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Methylcyclohexane	U		1.5	10	µg/Kg-dry	0.813	10/27/2019 23:44
Methylene chloride	U		6.3	10	µg/Kg-dry	0.813	10/27/2019 23:44
o-Xylene	U		1.2	2.6	µg/Kg-dry	0.813	10/27/2019 23:44
Styrene	U		0.77	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Tetrachloroethene	U		0.91	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Toluene	U		0.88	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
trans-1,2-Dichloroethene	U		0.51	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
trans-1,3-Dichloropropene	U		0.49	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Trichloroethene	U		0.74	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Trichlorofluoromethane	U		0.73	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Vinyl chloride	U		0.72	5.1	µg/Kg-dry	0.813	10/27/2019 23:44
Surr: 1,2-Dichloroethane-d4	110			83-132	%REC	0.813	10/27/2019 23:44
Surr: 4-Bromofluorobenzene	104			83-111	%REC	0.813	10/27/2019 23:44
Surr: Dibromofluoromethane	37.5	S		77-125	%REC	0.813	10/27/2019 23:44

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-01-03
Collection Date: 10/17/2019 02:20 PM

Work Order: 19101554
Lab ID: 19101554-21
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	94.8			86-108	%REC	0.813	10/27/2019 23:44
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	20		0.10	0.10	% of sample	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-11-13
Collection Date: 10/17/2019 02:38 PM

Work Order: 19101554
Lab ID: 19101554-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS							
			Method: SW8082		Prep: SW3546 / 10/29/19		Analyst: KB
Aroclor 1016	U		30	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1221	U		30	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1232	U		30	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1242	U		30	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1248	U		30	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1254	U		24	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1260	U		24	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1262	U		24	87	µg/Kg-dry	1	10/30/2019 07:33
Aroclor 1268	U		24	87	µg/Kg-dry	1	10/30/2019 07:33
Surr: Decachlorobiphenyl	85.9			40-140	%REC	1	10/30/2019 07:33
Surr: Tetrachloro-m-xylene	79.8			45-124	%REC	1	10/30/2019 07:33
METALS BY ICP-MS							
			Method: SW6020A		Prep: SW3050B / 10/29/19		Analyst: STP
Arsenic	21		0.054	0.45	mg/Kg-dry	1	10/30/2019 20:51
Barium	38		0.41	0.45	mg/Kg-dry	1	10/30/2019 20:51
Cadmium	U		0.027	0.18	mg/Kg-dry	1	10/30/2019 20:51
Chromium	43		2.0	4.5	mg/Kg-dry	10	10/31/2019 14:14
Lead	22		0.21	0.45	mg/Kg-dry	1	10/30/2019 20:51
Selenium	U		0.41	0.45	mg/Kg-dry	1	10/30/2019 20:51
Silver	U		0.059	0.45	mg/Kg-dry	1	10/30/2019 20:51
DIESEL RANGE ORGANICS BY GC-MS							
			Method: SW8270		Prep: SW3550 / 10/23/19		Analyst: RM
DRO (C10-C21)	U		2.0	6.6	mg/Kg-dry	1	10/26/2019 15:56
ORO (C21-C35)	U		2.2	6.6	mg/Kg-dry	1	10/26/2019 15:56
Surr: 4-Terphenyl-d14	54.5			25-137	%REC	1	10/26/2019 15:56
SEMI-VOLATILE ORGANIC COMPOUNDS							
			Method: SW846 8270D		Prep: SW3546 / 10/21/19		Analyst: RM
1,1'-Biphenyl	U		7.2	44	µg/Kg-dry	1	10/25/2019 06:30
1,2,4,5-Tetrachlorobenzene	U		34	440	µg/Kg-dry	1	10/25/2019 06:30
1,4-Dioxane	U		32	220	µg/Kg-dry	1	10/25/2019 06:30
2,2'-Oxybis(1-chloropropane)	U		10	44	µg/Kg-dry	1	10/25/2019 06:30
2,3,4,6-Tetrachlorophenol	U		12	89	µg/Kg-dry	1	10/25/2019 06:30
2,4,5-Trichlorophenol	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
2,4,6-Trichlorophenol	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
2,4-Dichlorophenol	U		9.3	44	µg/Kg-dry	1	10/25/2019 06:30
2,4-Dimethylphenol	U		9.0	44	µg/Kg-dry	1	10/25/2019 06:30
2,4-Dinitrophenol	U		24	44	µg/Kg-dry	1	10/25/2019 06:30
2,4-Dinitrotoluene	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
2,6-Dinitrotoluene	U		7.3	44	µg/Kg-dry	1	10/25/2019 06:30
2-Chloronaphthalene	U		6.2	8.9	µg/Kg-dry	1	10/25/2019 06:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-11-13
Collection Date: 10/17/2019 02:38 PM

Work Order: 19101554
Lab ID: 19101554-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorophenol	U		14	44	µg/Kg-dry	1	10/25/2019 06:30
2-Methylnaphthalene	U		4.5	8.9	µg/Kg-dry	1	10/25/2019 06:30
2-Methylphenol	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
2-Nitroaniline	U		10	44	µg/Kg-dry	1	10/25/2019 06:30
2-Nitrophenol	U		13	44	µg/Kg-dry	1	10/25/2019 06:30
3&4-Methylphenol	U		8.9	44	µg/Kg-dry	1	10/25/2019 06:30
3,3'-Dichlorobenzidine	U		6.6	220	µg/Kg-dry	1	10/25/2019 06:30
3-Nitroaniline	U		10	44	µg/Kg-dry	1	10/25/2019 06:30
4,6-Dinitro-2-methylphenol	U		11	44	µg/Kg-dry	1	10/25/2019 06:30
4-Bromophenyl phenyl ether	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
4-Chloro-3-methylphenol	U		13	44	µg/Kg-dry	1	10/25/2019 06:30
4-Chloroaniline	U		7.0	89	µg/Kg-dry	1	10/25/2019 06:30
4-Chlorophenyl phenyl ether	U		12	44	µg/Kg-dry	1	10/25/2019 06:30
4-Nitroaniline	U		69	220	µg/Kg-dry	1	10/25/2019 06:30
4-Nitrophenol	U		40	44	µg/Kg-dry	1	10/25/2019 06:30
Acenaphthene	U		6.4	8.9	µg/Kg-dry	1	10/25/2019 06:30
Acenaphthylene	U		7.7	8.9	µg/Kg-dry	1	10/25/2019 06:30
Acetophenone	U		6.9	44	µg/Kg-dry	1	10/25/2019 06:30
Anthracene	U		6.2	8.9	µg/Kg-dry	1	10/25/2019 06:30
Atrazine	U		7.0	44	µg/Kg-dry	1	10/25/2019 06:30
Benzaldehyde	U		68	89	µg/Kg-dry	1	10/25/2019 06:30
Benzo(a)anthracene	U		7.6	8.9	µg/Kg-dry	1	10/25/2019 06:30
Benzo(a)pyrene	U		5.4	8.9	µg/Kg-dry	1	10/25/2019 06:30
Benzo(b)fluoranthene	U		6.6	8.9	µg/Kg-dry	1	10/25/2019 06:30
Benzo(g,h,i)perylene	U		6.8	8.9	µg/Kg-dry	1	10/25/2019 06:30
Benzo(k)fluoranthene	U		6.7	8.9	µg/Kg-dry	1	10/25/2019 06:30
Bis(2-chloroethoxy)methane	U		4.2	44	µg/Kg-dry	1	10/25/2019 06:30
Bis(2-chloroethyl)ether	U		13	44	µg/Kg-dry	1	10/25/2019 06:30
Bis(2-ethylhexyl)phthalate	U		7.7	44	µg/Kg-dry	1	10/25/2019 06:30
Butyl benzyl phthalate	U		7.5	44	µg/Kg-dry	1	10/25/2019 06:30
Caprolactam	U		15	44	µg/Kg-dry	1	10/25/2019 06:30
Carbazole	U		4.8	44	µg/Kg-dry	1	10/25/2019 06:30
Chrysene	U		7.2	8.9	µg/Kg-dry	1	10/25/2019 06:30
Dibenzo(a,h)anthracene	U		4.8	8.9	µg/Kg-dry	1	10/25/2019 06:30
Dibenzofuran	U		6.5	44	µg/Kg-dry	1	10/25/2019 06:30
Diethyl phthalate	U		6.8	44	µg/Kg-dry	1	10/25/2019 06:30
Dimethyl phthalate	U		8.6	44	µg/Kg-dry	1	10/25/2019 06:30
Di-n-butyl phthalate	U		8.1	44	µg/Kg-dry	1	10/25/2019 06:30
Di-n-octyl phthalate	U		8.5	44	µg/Kg-dry	1	10/25/2019 06:30
Fluoranthene	U		4.2	8.9	µg/Kg-dry	1	10/25/2019 06:30

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-11-13
Collection Date: 10/17/2019 02:38 PM

Work Order: 19101554
Lab ID: 19101554-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	U		6.4	8.9	µg/Kg-dry	1	10/25/2019 06:30
Hexachlorobenzene	U		13	44	µg/Kg-dry	1	10/25/2019 06:30
Hexachlorobutadiene	U		24	44	µg/Kg-dry	1	10/25/2019 06:30
Hexachlorocyclopentadiene	U		15	44	µg/Kg-dry	1	10/25/2019 06:30
Hexachloroethane	U		18	44	µg/Kg-dry	1	10/25/2019 06:30
Indeno(1,2,3-cd)pyrene	U		6.2	8.9	µg/Kg-dry	1	10/25/2019 06:30
Isophorone	U		8.6	220	µg/Kg-dry	1	10/25/2019 06:30
Naphthalene	U		5.7	8.9	µg/Kg-dry	1	10/25/2019 06:30
Nitrobenzene	U		15	220	µg/Kg-dry	1	10/25/2019 06:30
N-Nitrosodi-n-propylamine	U		7.3	44	µg/Kg-dry	1	10/25/2019 06:30
N-Nitrosodiphenylamine	U		4.2	44	µg/Kg-dry	1	10/25/2019 06:30
Pentachlorophenol	U		16	44	µg/Kg-dry	1	10/25/2019 06:30
Phenanthrene	U		4.1	8.9	µg/Kg-dry	1	10/25/2019 06:30
Phenol	U		11	44	µg/Kg-dry	1	10/25/2019 06:30
Pyrene	U		1.6	8.9	µg/Kg-dry	1	10/25/2019 06:30
Surr: 2,4,6-Tribromophenol	67.9			38-92	%REC	1	10/25/2019 06:30
Surr: 2-Fluorobiphenyl	71.7			44-107	%REC	1	10/25/2019 06:30
Surr: 2-Fluorophenol	85.3			37-109	%REC	1	10/25/2019 06:30
Surr: 4-Terphenyl-d14	62.0			52-123	%REC	1	10/25/2019 06:30
Surr: Nitrobenzene-d5	82.0			41-94	%REC	1	10/25/2019 06:30
Surr: Phenol-d6	83.8			28-111	%REC	1	10/25/2019 06:30
GASOLINE RANGE ORGANICS BY GC-MS			Method: SW8260GRO		Prep: SW5035 / 10/21/19		Analyst: WH
GRO (C6-C10)	U		1,900	7,500	µg/Kg-dry	1	10/26/2019 04:36
Surr: Toluene-d8	86.0			70-130	%REC	1	10/26/2019 04:36
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C				Analyst: MF
1,1,1-Trichloroethane	U		0.87	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,1,2,2-Tetrachloroethane	U		0.70	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,1,2-Trichloroethane	U		0.74	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,1,2-Trichlorotrifluoroethane	U		1.2	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,1-Dichloroethane	U		0.68	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,1-Dichloroethene	U		1.1	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2,3-Trichlorobenzene	U		2.0	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2,4-Trichlorobenzene	U		1.2	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2-Dibromo-3-chloropropane	U		1.1	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2-Dibromoethane	U		0.40	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2-Dichlorobenzene	U		0.77	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2-Dichloroethane	U		0.61	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,2-Dichloropropane	U		0.48	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
1,3-Dichlorobenzene	U		0.67	5.5	µg/Kg-dry	0.822	10/28/2019 12:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-11-13
Collection Date: 10/17/2019 02:38 PM

Work Order: 19101554
Lab ID: 19101554-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dichlorobenzene	U		0.70	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
2-Butanone	U		5.6	11	µg/Kg-dry	0.822	10/28/2019 12:01
2-Hexanone	U		2.0	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
4-Methyl-2-pentanone	U		2.0	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Acetone	U		5.1	11	µg/Kg-dry	0.822	10/28/2019 12:01
Benzene	U		0.57	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Bromochloromethane	U		0.59	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Bromodichloromethane	U		0.66	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Bromoform	U		0.55	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Bromomethane	U		2.7	11	µg/Kg-dry	0.822	10/28/2019 12:01
Carbon disulfide	U		0.65	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Carbon tetrachloride	U		1.1	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Chlorobenzene	U		0.69	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Chloroethane	U		2.1	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Chloroform	U		0.90	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Chloromethane	U		1.1	11	µg/Kg-dry	0.822	10/28/2019 12:01
cis-1,2-Dichloroethene	U		0.59	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
cis-1,3-Dichloropropene	U		0.66	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Cyclohexane	U		1.9	11	µg/Kg-dry	0.822	10/28/2019 12:01
Dibromochloromethane	U		0.56	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Dichlorodifluoromethane	U		2.7	11	µg/Kg-dry	0.822	10/28/2019 12:01
Ethylbenzene	U		0.96	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Isopropylbenzene	U		0.93	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
m,p-Xylene	U		2.4	2.7	µg/Kg-dry	0.822	10/28/2019 12:01
Methyl acetate	U		1.3	11	µg/Kg-dry	0.822	10/28/2019 12:01
Methyl tert-butyl ether	U		0.67	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Methylcyclohexane	U		1.6	11	µg/Kg-dry	0.822	10/28/2019 12:01
Methylene chloride	U		6.8	11	µg/Kg-dry	0.822	10/28/2019 12:01
o-Xylene	U		1.3	2.7	µg/Kg-dry	0.822	10/28/2019 12:01
Styrene	U		0.82	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Tetrachloroethene	U		0.98	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Toluene	U		0.94	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
trans-1,2-Dichloroethene	U		0.55	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
trans-1,3-Dichloropropene	U		0.53	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Trichloroethene	U		0.79	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Trichlorofluoromethane	U		0.78	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Vinyl chloride	U		0.77	5.5	µg/Kg-dry	0.822	10/28/2019 12:01
Surr: 1,2-Dichloroethane-d4	115			83-132	%REC	0.822	10/28/2019 12:01
Surr: 4-Bromofluorobenzene	103			83-111	%REC	0.822	10/28/2019 12:01
Surr: Dibromofluoromethane	45.7	S		77-125	%REC	0.822	10/28/2019 12:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: SB08-11-13
Collection Date: 10/17/2019 02:38 PM

Work Order: 19101554
Lab ID: 19101554-22
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	95.0			86-108	%REC	0.822	10/28/2019 12:01
MOISTURE			Method: SW3550C				Analyst: KTP
Moisture	25		0.10	0.10	% of sample	1	10/22/2019 16:19

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Soil 1
Collection Date: 10/16/2019

Work Order: 19101554
Lab ID: 19101554-23
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C			Analyst: MF	
1,1,1-Trichloroethane	U		0.79	5.0	µg/Kg	1	10/27/2019 18:59
1,1,2,2-Tetrachloroethane	U		0.64	5.0	µg/Kg	1	10/27/2019 18:59
1,1,2-Trichloroethane	U		0.67	5.0	µg/Kg	1	10/27/2019 18:59
1,1,2-Trichlorotrifluoroethane	U		1.1	5.0	µg/Kg	1	10/27/2019 18:59
1,1-Dichloroethane	U		0.62	5.0	µg/Kg	1	10/27/2019 18:59
1,1-Dichloroethene	U		0.98	5.0	µg/Kg	1	10/27/2019 18:59
1,2,3-Trichlorobenzene	U		1.8	5.0	µg/Kg	1	10/27/2019 18:59
1,2,4-Trichlorobenzene	U		1.1	5.0	µg/Kg	1	10/27/2019 18:59
1,2-Dibromo-3-chloropropane	U		0.99	5.0	µg/Kg	1	10/27/2019 18:59
1,2-Dibromoethane	U		0.36	5.0	µg/Kg	1	10/27/2019 18:59
1,2-Dichlorobenzene	U		0.70	5.0	µg/Kg	1	10/27/2019 18:59
1,2-Dichloroethane	U		0.56	5.0	µg/Kg	1	10/27/2019 18:59
1,2-Dichloropropane	U		0.44	5.0	µg/Kg	1	10/27/2019 18:59
1,3-Dichlorobenzene	U		0.61	5.0	µg/Kg	1	10/27/2019 18:59
1,4-Dichlorobenzene	U		0.64	5.0	µg/Kg	1	10/27/2019 18:59
2-Butanone	U		5.1	10	µg/Kg	1	10/27/2019 18:59
2-Hexanone	U		1.8	5.0	µg/Kg	1	10/27/2019 18:59
4-Methyl-2-pentanone	U		1.8	5.0	µg/Kg	1	10/27/2019 18:59
Acetone	U		4.6	10	µg/Kg	1	10/27/2019 18:59
Benzene	U		0.52	5.0	µg/Kg	1	10/27/2019 18:59
Bromochloromethane	U		0.54	5.0	µg/Kg	1	10/27/2019 18:59
Bromodichloromethane	U		0.60	5.0	µg/Kg	1	10/27/2019 18:59
Bromoform	U		0.50	5.0	µg/Kg	1	10/27/2019 18:59
Bromomethane	U		2.5	10	µg/Kg	1	10/27/2019 18:59
Carbon disulfide	U		0.59	5.0	µg/Kg	1	10/27/2019 18:59
Carbon tetrachloride	U		1.0	5.0	µg/Kg	1	10/27/2019 18:59
Chlorobenzene	U		0.63	5.0	µg/Kg	1	10/27/2019 18:59
Chloroethane	U		1.9	5.0	µg/Kg	1	10/27/2019 18:59
Chloroform	U		0.82	5.0	µg/Kg	1	10/27/2019 18:59
Chloromethane	U		1.0	10	µg/Kg	1	10/27/2019 18:59
cis-1,2-Dichloroethene	U		0.54	5.0	µg/Kg	1	10/27/2019 18:59
cis-1,3-Dichloropropene	U		0.60	5.0	µg/Kg	1	10/27/2019 18:59
Cyclohexane	U		1.7	10	µg/Kg	1	10/27/2019 18:59
Dibromochloromethane	U		0.51	5.0	µg/Kg	1	10/27/2019 18:59
Dichlorodifluoromethane	U		2.5	10	µg/Kg	1	10/27/2019 18:59
Ethylbenzene	U		0.87	5.0	µg/Kg	1	10/27/2019 18:59
Isopropylbenzene	U		0.85	5.0	µg/Kg	1	10/27/2019 18:59
m,p-Xylene	U		2.2	2.5	µg/Kg	1	10/27/2019 18:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Soil 1
Collection Date: 10/16/2019

Work Order: 19101554
Lab ID: 19101554-23
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		1.2	10	µg/Kg	1	10/27/2019 18:59
Methyl tert-butyl ether	U		0.61	5.0	µg/Kg	1	10/27/2019 18:59
Methylcyclohexane	U		1.5	10	µg/Kg	1	10/27/2019 18:59
Methylene chloride	U		6.2	10	µg/Kg	1	10/27/2019 18:59
o-Xylene	U		1.2	2.5	µg/Kg	1	10/27/2019 18:59
Styrene	U		0.75	5.0	µg/Kg	1	10/27/2019 18:59
Tetrachloroethene	U		0.89	5.0	µg/Kg	1	10/27/2019 18:59
Toluene	U		0.86	5.0	µg/Kg	1	10/27/2019 18:59
trans-1,2-Dichloroethene	U		0.50	5.0	µg/Kg	1	10/27/2019 18:59
trans-1,3-Dichloropropene	U		0.48	5.0	µg/Kg	1	10/27/2019 18:59
Trichloroethene	U		0.72	5.0	µg/Kg	1	10/27/2019 18:59
Trichlorofluoromethane	U		0.71	5.0	µg/Kg	1	10/27/2019 18:59
Vinyl chloride	U		0.70	5.0	µg/Kg	1	10/27/2019 18:59
Surr: 1,2-Dichloroethane-d4	101			83-132	%REC	1	10/27/2019 18:59
Surr: 4-Bromofluorobenzene	102			83-111	%REC	1	10/27/2019 18:59
Surr: Dibromofluoromethane	23.8	S		77-125	%REC	1	10/27/2019 18:59
Surr: Toluene-d8	101			86-108	%REC	1	10/27/2019 18:59

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Soil 2
Collection Date: 10/17/2019

Work Order: 19101554
Lab ID: 19101554-24
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - LOW LEVEL			Method: SW8260C			Analyst: MF	
1,1,1-Trichloroethane	U		0.79	5.0	µg/Kg	1	10/27/2019 19:15
1,1,2,2-Tetrachloroethane	U		0.64	5.0	µg/Kg	1	10/27/2019 19:15
1,1,2-Trichloroethane	U		0.67	5.0	µg/Kg	1	10/27/2019 19:15
1,1,2-Trichlorotrifluoroethane	U		1.1	5.0	µg/Kg	1	10/27/2019 19:15
1,1-Dichloroethane	U		0.62	5.0	µg/Kg	1	10/27/2019 19:15
1,1-Dichloroethene	U		0.98	5.0	µg/Kg	1	10/27/2019 19:15
1,2,3-Trichlorobenzene	U		1.8	5.0	µg/Kg	1	10/27/2019 19:15
1,2,4-Trichlorobenzene	U		1.1	5.0	µg/Kg	1	10/27/2019 19:15
1,2-Dibromo-3-chloropropane	U		0.99	5.0	µg/Kg	1	10/27/2019 19:15
1,2-Dibromoethane	U		0.36	5.0	µg/Kg	1	10/27/2019 19:15
1,2-Dichlorobenzene	U		0.70	5.0	µg/Kg	1	10/27/2019 19:15
1,2-Dichloroethane	U		0.56	5.0	µg/Kg	1	10/27/2019 19:15
1,2-Dichloropropane	U		0.44	5.0	µg/Kg	1	10/27/2019 19:15
1,3-Dichlorobenzene	U		0.61	5.0	µg/Kg	1	10/27/2019 19:15
1,4-Dichlorobenzene	U		0.64	5.0	µg/Kg	1	10/27/2019 19:15
2-Butanone	U		5.1	10	µg/Kg	1	10/27/2019 19:15
2-Hexanone	U		1.8	5.0	µg/Kg	1	10/27/2019 19:15
4-Methyl-2-pentanone	U		1.8	5.0	µg/Kg	1	10/27/2019 19:15
Acetone	U		4.6	10	µg/Kg	1	10/27/2019 19:15
Benzene	U		0.52	5.0	µg/Kg	1	10/27/2019 19:15
Bromochloromethane	U		0.54	5.0	µg/Kg	1	10/27/2019 19:15
Bromodichloromethane	U		0.60	5.0	µg/Kg	1	10/27/2019 19:15
Bromoform	U		0.50	5.0	µg/Kg	1	10/27/2019 19:15
Bromomethane	U		2.5	10	µg/Kg	1	10/27/2019 19:15
Carbon disulfide	U		0.59	5.0	µg/Kg	1	10/27/2019 19:15
Carbon tetrachloride	U		1.0	5.0	µg/Kg	1	10/27/2019 19:15
Chlorobenzene	U		0.63	5.0	µg/Kg	1	10/27/2019 19:15
Chloroethane	U		1.9	5.0	µg/Kg	1	10/27/2019 19:15
Chloroform	U		0.82	5.0	µg/Kg	1	10/27/2019 19:15
Chloromethane	U		1.0	10	µg/Kg	1	10/27/2019 19:15
cis-1,2-Dichloroethene	U		0.54	5.0	µg/Kg	1	10/27/2019 19:15
cis-1,3-Dichloropropene	U		0.60	5.0	µg/Kg	1	10/27/2019 19:15
Cyclohexane	U		1.7	10	µg/Kg	1	10/27/2019 19:15
Dibromochloromethane	U		0.51	5.0	µg/Kg	1	10/27/2019 19:15
Dichlorodifluoromethane	U		2.5	10	µg/Kg	1	10/27/2019 19:15
Ethylbenzene	U		0.87	5.0	µg/Kg	1	10/27/2019 19:15
Isopropylbenzene	U		0.85	5.0	µg/Kg	1	10/27/2019 19:15
m,p-Xylene	U		2.2	2.5	µg/Kg	1	10/27/2019 19:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Soil 2
Collection Date: 10/17/2019

Work Order: 19101554
Lab ID: 19101554-24
Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		1.2	10	µg/Kg	1	10/27/2019 19:15
Methyl tert-butyl ether	U		0.61	5.0	µg/Kg	1	10/27/2019 19:15
Methylcyclohexane	U		1.5	10	µg/Kg	1	10/27/2019 19:15
Methylene chloride	U		6.2	10	µg/Kg	1	10/27/2019 19:15
o-Xylene	U		1.2	2.5	µg/Kg	1	10/27/2019 19:15
Styrene	U		0.75	5.0	µg/Kg	1	10/27/2019 19:15
Tetrachloroethene	U		0.89	5.0	µg/Kg	1	10/27/2019 19:15
Toluene	U		0.86	5.0	µg/Kg	1	10/27/2019 19:15
trans-1,2-Dichloroethene	U		0.50	5.0	µg/Kg	1	10/27/2019 19:15
trans-1,3-Dichloropropene	U		0.48	5.0	µg/Kg	1	10/27/2019 19:15
Trichloroethene	U		0.72	5.0	µg/Kg	1	10/27/2019 19:15
Trichlorofluoromethane	U		0.71	5.0	µg/Kg	1	10/27/2019 19:15
Vinyl chloride	U		0.70	5.0	µg/Kg	1	10/27/2019 19:15
Surr: 1,2-Dichloroethane-d4	105			83-132	%REC	1	10/27/2019 19:15
Surr: 4-Bromofluorobenzene	105			83-111	%REC	1	10/27/2019 19:15
Surr: Dibromofluoromethane	25.4	S		77-125	%REC	1	10/27/2019 19:15
Surr: Toluene-d8	97.0			86-108	%REC	1	10/27/2019 19:15

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Water 1
Collection Date: 10/16/2019

Work Order: 19101554
Lab ID: 19101554-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: WH	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 21:51
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/28/2019 21:51
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/28/2019 21:51
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/28/2019 21:51
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 21:51
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/28/2019 21:51
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/28/2019 21:51
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/28/2019 21:51
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/28/2019 21:51
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/28/2019 21:51
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/28/2019 21:51
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/28/2019 21:51
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/28/2019 21:51
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/28/2019 21:51
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/28/2019 21:51
2-Butanone	0.66	J	0.52	5.0	µg/L	1	10/28/2019 21:51
2-Hexanone	U		0.59	5.0	µg/L	1	10/28/2019 21:51
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/28/2019 21:51
Acetone	3.4	J	1.1	10	µg/L	1	10/28/2019 21:51
Benzene	U		0.46	1.0	µg/L	1	10/28/2019 21:51
Bromochloromethane	U		0.45	1.0	µg/L	1	10/28/2019 21:51
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/28/2019 21:51
Bromoform	U		0.56	1.0	µg/L	1	10/28/2019 21:51
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 19:12
Carbon disulfide	U		0.49	1.0	µg/L	1	10/28/2019 21:51
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/28/2019 21:51
Chlorobenzene	U		0.40	1.0	µg/L	1	10/28/2019 21:51
Chloroethane	U		0.68	1.0	µg/L	1	10/28/2019 21:51
Chloroform	U		0.46	1.0	µg/L	1	10/28/2019 21:51
Chloromethane	U		0.83	1.0	µg/L	1	10/28/2019 21:51
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/28/2019 21:51
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/28/2019 21:51
Cyclohexane	U		0.63	2.0	µg/L	1	10/28/2019 21:51
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/28/2019 21:51
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/28/2019 21:51
Ethylbenzene	U		0.34	1.0	µg/L	1	10/28/2019 21:51
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/28/2019 21:51
m,p-Xylene	U		0.81	2.0	µg/L	1	10/28/2019 21:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-Water 1
Collection Date: 10/16/2019

Work Order: 19101554
Lab ID: 19101554-25
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		0.59	2.0	µg/L	1	10/28/2019 21:51
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/28/2019 21:51
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/28/2019 21:51
Methylene chloride	U		0.86	5.0	µg/L	1	10/28/2019 21:51
o-Xylene	U		0.31	1.0	µg/L	1	10/28/2019 21:51
Styrene	U		0.33	1.0	µg/L	1	10/28/2019 21:51
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/28/2019 21:51
Toluene	U		0.45	1.0	µg/L	1	10/28/2019 21:51
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/28/2019 21:51
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/28/2019 21:51
Trichloroethene	U		0.43	1.0	µg/L	1	10/28/2019 21:51
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/28/2019 21:51
Vinyl chloride	U		0.53	1.0	µg/L	1	10/28/2019 21:51
Surr: 1,2-Dichloroethane-d4	106			75-120	%REC	1	10/25/2019 19:12
Surr: 1,2-Dichloroethane-d4	101			75-120	%REC	1	10/28/2019 21:51
Surr: 4-Bromofluorobenzene	93.8			80-110	%REC	1	10/25/2019 19:12
Surr: 4-Bromofluorobenzene	94.8			80-110	%REC	1	10/28/2019 21:51
Surr: Dibromofluoromethane	111			85-115	%REC	1	10/25/2019 19:12
Surr: Dibromofluoromethane	95.0			85-115	%REC	1	10/28/2019 21:51
Surr: Toluene-d8	84.9	S		85-110	%REC	1	10/25/2019 19:12
Surr: Toluene-d8	99.5			85-110	%REC	1	10/28/2019 21:51

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-water 2
Collection Date: 10/17/2019

Work Order: 19101554
Lab ID: 19101554-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Method: SW8260C			Analyst: JNS	
1,1,1-Trichloroethane	U		0.46	1.0	µg/L	1	10/25/2019 19:28
1,1,2,2-Tetrachloroethane	U		0.40	1.0	µg/L	1	10/25/2019 19:28
1,1,2-Trichloroethane	U		0.46	1.0	µg/L	1	10/25/2019 19:28
1,1,2-Trichlorotrifluoroethane	U		0.52	1.0	µg/L	1	10/25/2019 19:28
1,1-Dichloroethane	U		0.44	1.0	µg/L	1	10/25/2019 19:28
1,1-Dichloroethene	U		0.40	1.0	µg/L	1	10/25/2019 19:28
1,2,3-Trichlorobenzene	U		0.42	1.0	µg/L	1	10/25/2019 19:28
1,2,4-Trichlorobenzene	U		0.45	1.0	µg/L	1	10/25/2019 19:28
1,2-Dibromo-3-chloropropane	U		0.43	1.0	µg/L	1	10/25/2019 19:28
1,2-Dibromoethane	U		0.41	1.0	µg/L	1	10/25/2019 19:28
1,2-Dichlorobenzene	U		0.32	1.0	µg/L	1	10/25/2019 19:28
1,2-Dichloroethane	U		0.44	1.0	µg/L	1	10/25/2019 19:28
1,2-Dichloropropane	U		0.48	1.0	µg/L	1	10/25/2019 19:28
1,3-Dichlorobenzene	U		0.33	1.0	µg/L	1	10/25/2019 19:28
1,4-Dichlorobenzene	U		0.35	1.0	µg/L	1	10/25/2019 19:28
2-Butanone	U		0.52	5.0	µg/L	1	10/25/2019 19:28
2-Hexanone	U		0.59	5.0	µg/L	1	10/25/2019 19:28
4-Methyl-2-pentanone	U		0.52	1.0	µg/L	1	10/25/2019 19:28
Acetone	U		1.1	10	µg/L	1	10/25/2019 19:28
Benzene	U		0.46	1.0	µg/L	1	10/25/2019 19:28
Bromochloromethane	U		0.45	1.0	µg/L	1	10/25/2019 19:28
Bromodichloromethane	U		0.49	1.0	µg/L	1	10/25/2019 19:28
Bromoform	U		0.56	1.0	µg/L	1	10/25/2019 19:28
Bromomethane	U		0.90	1.0	µg/L	1	10/25/2019 19:28
Carbon disulfide	U		0.49	1.0	µg/L	1	10/25/2019 19:28
Carbon tetrachloride	U		0.40	1.0	µg/L	1	10/25/2019 19:28
Chlorobenzene	U		0.40	1.0	µg/L	1	10/25/2019 19:28
Chloroethane	U		0.68	1.0	µg/L	1	10/25/2019 19:28
Chloroform	U		0.46	1.0	µg/L	1	10/25/2019 19:28
Chloromethane	U		0.83	1.0	µg/L	1	10/25/2019 19:28
cis-1,2-Dichloroethene	U		0.42	1.0	µg/L	1	10/25/2019 19:28
cis-1,3-Dichloropropene	U		0.57	1.0	µg/L	1	10/25/2019 19:28
Cyclohexane	U		0.63	2.0	µg/L	1	10/25/2019 19:28
Dibromochloromethane	U		0.40	1.0	µg/L	1	10/25/2019 19:28
Dichlorodifluoromethane	U		0.68	1.0	µg/L	1	10/25/2019 19:28
Ethylbenzene	U		0.34	1.0	µg/L	1	10/25/2019 19:28
Isopropylbenzene	U		0.35	1.0	µg/L	1	10/25/2019 19:28
m,p-Xylene	U		0.81	2.0	µg/L	1	10/25/2019 19:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 01-Nov-19

Client: Tetra Tech
Project: Oak Street City Hall Site
Sample ID: TB-water 2
Collection Date: 10/17/2019

Work Order: 19101554
Lab ID: 19101554-26
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methyl acetate	U		0.59	2.0	µg/L	1	10/25/2019 19:28
Methyl tert-butyl ether	U		0.45	1.0	µg/L	1	10/25/2019 19:28
Methylcyclohexane	U		0.35	1.0	µg/L	1	10/25/2019 19:28
Methylene chloride	U		0.86	5.0	µg/L	1	10/25/2019 19:28
o-Xylene	U		0.31	1.0	µg/L	1	10/25/2019 19:28
Styrene	U		0.33	1.0	µg/L	1	10/25/2019 19:28
Tetrachloroethene	U		0.39	1.0	µg/L	1	10/25/2019 19:28
Toluene	U		0.45	1.0	µg/L	1	10/25/2019 19:28
trans-1,2-Dichloroethene	U		0.48	1.0	µg/L	1	10/25/2019 19:28
trans-1,3-Dichloropropene	U		0.38	1.0	µg/L	1	10/25/2019 19:28
Trichloroethene	U		0.43	1.0	µg/L	1	10/25/2019 19:28
Trichlorofluoromethane	U		0.52	1.0	µg/L	1	10/25/2019 19:28
Vinyl chloride	U		0.53	1.0	µg/L	1	10/25/2019 19:28
Surr: 1,2-Dichloroethane-d4	83.7			75-120	%REC	1	10/25/2019 19:28
Surr: 4-Bromofluorobenzene	92.4			80-110	%REC	1	10/25/2019 19:28
Surr: Dibromofluoromethane	96.6			85-115	%REC	1	10/25/2019 19:28
Surr: Toluene-d8	98.2			85-110	%REC	1	10/25/2019 19:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144318 Instrument ID GC14 Method: SW8082

MBLK		Sample ID: PBLKS1-144318-144318				Units: µg/Kg		Analysis Date: 10/22/2019 01:53 P			
Client ID:		Run ID: GC14_191022A				SeqNo: 6005282		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	23	67								
Aroclor 1221	U	23	67								
Aroclor 1232	U	23	67								
Aroclor 1242	U	23	67								
Aroclor 1248	U	23	67								
Aroclor 1254	U	19	67								
Aroclor 1260	U	19	67								
Aroclor 1262	U	19	67								
Aroclor 1268	U	19	67								
Surr: Decachlorobiphenyl	24.98	0	0	33.3	0	75	40-140	0			
Surr: Tetrachloro-m-xylene	26.22	0	0	33.3	0	78.7	45-124	0			

LCS		Sample ID: PLCSS1-144318-144318				Units: µg/Kg		Analysis Date: 10/22/2019 02:07 P			
Client ID:		Run ID: GC14_191022A				SeqNo: 6005283		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	726.7	23	67	833	0	87.2	50-130	0			
Aroclor 1260	734.1	19	67	833	0	88.1	50-130	0			
Surr: Decachlorobiphenyl	24.14	0	0	33.3	0	72.5	40-140	0			
Surr: Tetrachloro-m-xylene	24.43	0	0	33.3	0	73.4	45-124	0			

MS		Sample ID: 19101571-02A MS				Units: µg/Kg		Analysis Date: 10/22/2019 02:36 P			
Client ID:		Run ID: GC14_191022A				SeqNo: 6005285		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	675.6	22	65	809.9	0	83.4	40-140	0			
Aroclor 1260	688.4	18	65	809.9	0	85	40-140	0			
Surr: Decachlorobiphenyl	22.78	0	0	32.38	0	70.3	40-140	0			
Surr: Tetrachloro-m-xylene	22.58	0	0	32.38	0	69.7	45-124	0			

MSD		Sample ID: 19101571-02A MSD				Units: µg/Kg		Analysis Date: 10/22/2019 02:50 P			
Client ID:		Run ID: GC14_191022A				SeqNo: 6005286		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	677.9	22	64	805.1	0	84.2	40-140	675.6	0.338	50	
Aroclor 1260	692	18	64	805.1	0	86	40-140	688.4	0.515	50	
Surr: Decachlorobiphenyl	22.72	0	0	32.18	0	70.6	40-140	22.78	0.232	50	
Surr: Tetrachloro-m-xylene	22.29	0	0	32.18	0	69.3	45-124	22.58	1.29	50	

The following samples were analyzed in this batch:

19101554-01B	19101554-02B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144399** Instrument ID **GC14** Method: **SW8082**

MBLK		Sample ID: PBLKS1-144399-144399				Units: µg/Kg		Analysis Date: 10/24/2019 02:26 A			
Client ID:		Run ID: GC14_191023B				SeqNo: 6009584		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	23	67								
Aroclor 1221	U	23	67								
Aroclor 1232	U	23	67								
Aroclor 1242	U	23	67								
Aroclor 1248	U	23	67								
Aroclor 1254	U	19	67								
Aroclor 1260	U	19	67								
Aroclor 1262	U	19	67								
Aroclor 1268	U	19	67								
Surr: Decachlorobiphenyl	27.44	0	0	33.3	0	82.4	40-140	0			
Surr: Tetrachloro-m-xylene	24.12	0	0	33.3	0	72.4	45-124	0			

LCS		Sample ID: PLCSS1-144399-144399				Units: µg/Kg		Analysis Date: 10/24/2019 02:41 A			
Client ID:		Run ID: GC14_191023B				SeqNo: 6009585		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	696.9	23	67	833	0	83.7	50-130	0			
Aroclor 1260	731.7	19	67	833	0	87.8	50-130	0			
Surr: Decachlorobiphenyl	27.18	0	0	33.3	0	81.6	40-140	0			
Surr: Tetrachloro-m-xylene	22.97	0	0	33.3	0	69	45-124	0			

MS		Sample ID: 19101216-04B MS				Units: µg/Kg		Analysis Date: 10/24/2019 03:53 A			
Client ID:		Run ID: GC14_191023B				SeqNo: 6009587		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1518	60	170	2181	0	69.6	40-140	0			
Aroclor 1260	1801	49	170	2181	395.7	64.4	40-140	0			
Surr: Decachlorobiphenyl	64.94	0	0	87.2	0	74.5	40-140	0			
Surr: Tetrachloro-m-xylene	45.57	0	0	87.2	0	52.3	45-124	0			

MSD		Sample ID: 19101216-04B MSD				Units: µg/Kg		Analysis Date: 10/24/2019 04:07 A			
Client ID:		Run ID: GC14_191023B				SeqNo: 6009588		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	1616	64	190	2344	0	68.9	40-140	1518	6.26	50	
Aroclor 1260	1975	52	190	2344	395.7	67.3	40-140	1801	9.17	50	
Surr: Decachlorobiphenyl	71.77	0	0	93.71	0	76.6	40-140	64.94	10	50	
Surr: Tetrachloro-m-xylene	48.5	0	0	93.71	0	51.8	45-124	45.57	6.23	50	

The following samples were analyzed in this batch:

19101554-03B	19101554-04B	19101554-05B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144692** Instrument ID **GC14** Method: **SW8082**

MBLK		Sample ID: PBLKW1-144692-144692				Units: µg/L		Analysis Date: 10/28/2019 05:11 P			
Client ID:		Run ID: GC14_191028A				SeqNo: 6017758		Prep Date: 10/28/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.09	0.20								
Aroclor 1221	U	0.09	0.20								
Aroclor 1232	U	0.09	0.20								
Aroclor 1242	U	0.09	0.20								
Aroclor 1248	U	0.09	0.20								
Aroclor 1254	U	0.091	0.20								
Aroclor 1260	U	0.091	0.20								
Aroclor 1262	U	0.091	0.20								
Aroclor 1268	U	0.091	0.20								
<i>Surr: Decachlorobiphenyl</i>	<i>0.2159</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>104</i>	<i>30-150</i>	<i>0</i>			
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1459</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>70.1</i>	<i>50-150</i>	<i>0</i>			

LCS		Sample ID: PLCSW1-144692-144692				Units: µg/L		Analysis Date: 10/28/2019 05:25 P			
Client ID:		Run ID: GC14_191028A				SeqNo: 6017759		Prep Date: 10/28/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.59	0.09	0.20	4.17	0	86.1	50-150	0			
Aroclor 1260	3.72	0.091	0.20	4.17	0	89.2	50-150	0			
<i>Surr: Decachlorobiphenyl</i>	<i>0.213</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>102</i>	<i>30-150</i>	<i>0</i>			
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1553</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>74.7</i>	<i>50-150</i>	<i>0</i>			

LCSD		Sample ID: PLCSDW1-144692-144692				Units: µg/L		Analysis Date: 10/28/2019 05:40 P			
Client ID:		Run ID: GC14_191028A				SeqNo: 6017760		Prep Date: 10/28/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.101	0.09	0.20	4.17	0	98.3	50-150	3.59	13.3	0	
Aroclor 1260	3.879	0.091	0.20	4.17	0	93	50-150	3.72	4.18	0	
<i>Surr: Decachlorobiphenyl</i>	<i>0.1973</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>94.9</i>	<i>30-150</i>	<i>0.213</i>	<i>7.67</i>	<i>0</i>	
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.149</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>71.6</i>	<i>50-150</i>	<i>0.1553</i>	<i>4.17</i>	<i>0</i>	

The following samples were analyzed in this batch:

19101554-16D	19101554-18D	19101554-19D
19101554-20D		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144744** Instrument ID **GC14** Method: **SW8082**

MBLK		Sample ID: PBLKS1-144744-144744				Units: µg/Kg		Analysis Date: 10/30/2019 03:00 A			
Client ID:		Run ID: GC14_191029B				SeqNo: 6022930		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	23	67								
Aroclor 1221	U	23	67								
Aroclor 1232	U	23	67								
Aroclor 1242	U	23	67								
Aroclor 1248	U	23	67								
Aroclor 1254	U	19	67								
Aroclor 1260	U	19	67								
Aroclor 1262	U	19	67								
Aroclor 1268	U	19	67								
Surr: Decachlorobiphenyl	29.56	0	0	33.3	0	88.8	40-140	0			
Surr: Tetrachloro-m-xylene	26.1	0	0	33.3	0	78.4	45-124	0			

LCS		Sample ID: PLCSS1-144744-144744				Units: µg/Kg		Analysis Date: 10/30/2019 03:15 A			
Client ID:		Run ID: GC14_191029B				SeqNo: 6022931		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	753.5	23	67	833	0	90.5	50-130	0			
Aroclor 1260	760.4	19	67	833	0	91.3	50-130	0			
Surr: Decachlorobiphenyl	29.25	0	0	33.3	0	87.8	40-140	0			
Surr: Tetrachloro-m-xylene	24.79	0	0	33.3	0	74.4	45-124	0			

MS		Sample ID: 19101554-13B MS				Units: µg/Kg		Analysis Date: 10/30/2019 03:43 A			
Client ID: SB06-01-03		Run ID: GC14_191029B				SeqNo: 6022933		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	684.6	23	66	825.5	0	82.9	40-140	0			
Aroclor 1260	644.3	18	66	825.5	0	78.1	40-140	0			
Surr: Decachlorobiphenyl	23.85	0	0	33	0	72.3	40-140	0			
Surr: Tetrachloro-m-xylene	22.99	0	0	33	0	69.7	45-124	0			

MSD		Sample ID: 19101554-13B MSD				Units: µg/Kg		Analysis Date: 10/30/2019 03:58 A			
Client ID: SB06-01-03		Run ID: GC14_191029B				SeqNo: 6022934		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	652.8	22	65	807.5	0	80.8	40-140	684.6	4.76	50	
Aroclor 1260	599.3	18	65	807.5	0	74.2	40-140	644.3	7.24	50	
Surr: Decachlorobiphenyl	21.71	0	0	32.28	0	67.3	40-140	23.85	9.39	50	
Surr: Tetrachloro-m-xylene	21.98	0	0	32.28	0	68.1	45-124	22.99	4.48	50	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144744** Instrument ID **GC14** Method: **SW8082**

The following samples were analyzed in this batch:

19101554-06B	19101554-07B	19101554-08B
19101554-09B	19101554-10B	19101554-11B
19101554-12B	19101554-13B	19101554-14B
19101554-15B	19101554-17B	19101554-21B
19101554-22B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144764** Instrument ID **ICPMS3** Method: **SW6020A** (Dissolve)

MBLK		Sample ID: MBLK-144763-144764				Units: mg/L		Analysis Date: 10/29/2019 08:06 P			
Client ID:		Run ID: ICPMS3_191029A				SeqNo: 6020936		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.00019	0.0050								
Barium	U	0.002	0.0050								
Cadmium	U	0.00015	0.0020								
Chromium	U	0.00061	0.0050								
Lead	U	0.00072	0.0050								
Selenium	U	0.00048	0.0050								
Silver	U	0.00084	0.0050								

MBLK		Sample ID: MBLK-144764-144764				Units: mg/L		Analysis Date: 10/29/2019 08:09 P			
Client ID:		Run ID: ICPMS3_191029A				SeqNo: 6020938		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.00019	0.0050								
Barium	U	0.002	0.0050								
Cadmium	U	0.00015	0.0020								
Chromium	U	0.00061	0.0050								
Lead	U	0.00072	0.0050								
Selenium	U	0.00048	0.0050								
Silver	U	0.00084	0.0050								

LCS		Sample ID: LCS-144763-144764				Units: mg/L		Analysis Date: 10/29/2019 08:07 P			
Client ID:		Run ID: ICPMS3_191029A				SeqNo: 6020937		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09631	0.00019	0.0050	0.1	0	96.3	80-120	0			
Barium	0.09646	0.002	0.0050	0.1	0	96.5	80-120	0			
Cadmium	0.098	0.00015	0.0020	0.1	0	98	80-120	0			
Chromium	0.09647	0.00061	0.0050	0.1	0	96.5	80-120	0			
Lead	0.09427	0.00072	0.0050	0.1	0	94.3	80-120	0			
Selenium	0.09101	0.00048	0.0050	0.1	0	91	80-120	0			
Silver	0.1018	0.00084	0.0050	0.1	0	102	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144764** Instrument ID **ICPMS3** Method: **SW6020A** (Dissolve)

LCS					Sample ID: LCS-144764-144764			Units: mg/L		Analysis Date: 10/29/2019 08:11 P		
Client ID:			Run ID: ICPMS3_191029A			SeqNo: 6020939		Prep Date: 10/29/2019		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.09529	0.00019	0.0050	0.1	0	95.3	80-120	0				
Barium	0.09397	0.002	0.0050	0.1	0	94	80-120	0				
Cadmium	0.09613	0.00015	0.0020	0.1	0	96.1	80-120	0				
Chromium	0.09527	0.00061	0.0050	0.1	0	95.3	80-120	0				
Lead	0.09235	0.00072	0.0050	0.1	0	92.4	80-120	0				
Selenium	0.09482	0.00048	0.0050	0.1	0	94.8	80-120	0				
Silver	0.1005	0.00084	0.0050	0.1	0	101	80-120	0				

MS					Sample ID: 19101554-16CMS			Units: mg/L		Analysis Date: 10/29/2019 08:16 P		
Client ID: Field Blank				Run ID: ICPMS3_191029A			SeqNo: 6020942		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.09344	0.00019	0.0050	0.1	0.000066	93.4	75-125	0				
Barium	0.09248	0.002	0.0050	0.1	0.0002651	92.2	75-125	0				
Cadmium	0.09445	0.00015	0.0020	0.1	0.0000022	94.4	75-125	0				
Chromium	0.09362	0.00061	0.0050	0.1	0.0002706	93.4	75-125	0				
Lead	0.09185	0.00072	0.0050	0.1	-0.0000066	91.9	75-125	0				
Selenium	0.08651	0.00048	0.0050	0.1	-0.0003135	86.8	75-125	0				
Silver	0.09908	0.00084	0.0050	0.1	0.000011	99.1	75-125	0				

MSD					Sample ID: 19101554-16CMSD			Units: mg/L		Analysis Date: 10/29/2019 08:17 P	
Client ID: Field Blank				Run ID: ICPMS3_191029A			SeqNo: 6020943		Prep Date: 10/29/2019		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09434	0.00019	0.0050	0.1	0.000066	94.3	75-125	0.09344	0.955	20	
Barium	0.09327	0.002	0.0050	0.1	0.0002651	93	75-125	0.09248	0.857	20	
Cadmium	0.09406	0.00015	0.0020	0.1	0.0000022	94.1	75-125	0.09445	0.41	20	
Chromium	0.09349	0.00061	0.0050	0.1	0.0002706	93.2	75-125	0.09362	0.14	20	
Lead	0.09214	0.00072	0.0050	0.1	-0.0000066	92.1	75-125	0.09185	0.31	20	
Selenium	0.09276	0.00048	0.0050	0.1	-0.0003135	93.1	75-125	0.08651	6.97	20	
Silver	0.09935	0.00084	0.0050	0.1	0.000011	99.3	75-125	0.09908	0.269	20	

The following samples were analyzed in this batch:

19101554-16B	19101554-16C	19101554-18B
19101554-18C	19101554-19B	19101554-19C
19101554-20B	19101554-20C	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144792** Instrument ID **ICPMS3** Method: **SW6020A**

MBLK		Sample ID: MBLK-144792-144792				Units: mg/Kg		Analysis Date: 10/29/2019 03:49 P			
Client ID:		Run ID: ICPMS3_191029B				SeqNo: 6020150		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.03	0.25								
Barium	U	0.23	0.25								
Cadmium	U	0.015	0.10								
Chromium	U	0.11	0.25								
Lead	U	0.12	0.25								
Selenium	U	0.23	0.25								
Silver	U	0.033	0.25								

LCS		Sample ID: LCS-144792-144792				Units: mg/Kg		Analysis Date: 10/29/2019 03:51 P			
Client ID:		Run ID: ICPMS3_191029B				SeqNo: 6020151		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.87	0.03	0.25	5	0	97.4	80-120	0			
Barium	4.78	0.23	0.25	5	0	95.6	80-120	0			
Cadmium	4.813	0.015	0.10	5	0	96.3	80-120	0			
Chromium	5.065	0.11	0.25	5	0	101	80-120	0			
Lead	4.762	0.12	0.25	5	0	95.2	80-120	0			
Selenium	4.838	0.23	0.25	5	0	96.8	80-120	0			
Silver	4.954	0.033	0.25	5	0	99.1	80-120	0			

MS		Sample ID: 19102132-01AMS				Units: mg/Kg		Analysis Date: 10/29/2019 03:55 P			
Client ID:		Run ID: ICPMS3_191029B				SeqNo: 6020153		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.05	0.04	0.33	6.684	9.361	85.1	75-125	0			
Barium	82.21	0.31	0.33	6.684	69.33	193	75-125	0			SO
Cadmium	5.702	0.02	0.13	6.684	0.2783	81.1	75-125	0			
Chromium	19.61	0.15	0.33	6.684	11.31	124	75-125	0			
Lead	87.56	0.16	0.33	6.684	74.83	191	75-125	0			SO
Selenium	6.416	0.31	0.33	6.684	0.8045	83.9	75-125	0			
Silver	5.402	0.044	0.33	6.684	0.03504	80.3	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144792** Instrument ID **ICPMS3** Method: **SW6020A**

MSD		Sample ID: 19102132-01AMSD				Units: mg/Kg		Analysis Date: 10/29/2019 03:56 P			
Client ID:		Run ID: ICPMS3_191029B				SeqNo: 6020154		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	15.15	0.039	0.33	6.57	9.361	88.1	75-125	15.05	0.673	20	
Barium	84.65	0.3	0.33	6.57	69.33	233	75-125	82.21	2.93	20	SO
Cadmium	5.67	0.02	0.13	6.57	0.2783	82.1	75-125	5.702	0.556	20	
Chromium	20.42	0.14	0.33	6.57	11.31	139	75-125	19.61	4.01	20	S
Lead	78.66	0.16	0.33	6.57	74.83	58.3	75-125	87.56	10.7	20	SO
Selenium	6.451	0.3	0.33	6.57	0.8045	85.9	75-125	6.416	0.539	20	
Silver	5.377	0.043	0.33	6.57	0.03504	81.3	75-125	5.402	0.46	20	

The following samples were analyzed in this batch:

19101554-01B	19101554-02B	19101554-03B
19101554-04B	19101554-05B	19101554-06B
19101554-07B	19101554-08B	19101554-09B
19101554-10B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144809** Instrument ID **ICPMS3** Method: **SW6020A**

MBLK		Sample ID: MBLK-144809-144809				Units: mg/Kg		Analysis Date: 10/30/2019 08:35 P			
Client ID:		Run ID: ICPMS3_191030B				SeqNo: 6023968		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	U	0.03	0.25								
Barium	U	0.23	0.25								
Cadmium	U	0.015	0.10								
Chromium	U	0.11	0.25								
Lead	U	0.12	0.25								
Silver	U	0.033	0.25								

MBLK		Sample ID: MBLK-144809-144809				Units: mg/Kg		Analysis Date: 10/31/2019 01:59 P			
Client ID:		Run ID: ICPMS3_191031B				SeqNo: 6025156		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	U	0.23	0.25								

LCS		Sample ID: LCS-144809-144809				Units: mg/Kg		Analysis Date: 10/30/2019 08:37 P			
Client ID:		Run ID: ICPMS3_191030B				SeqNo: 6023969		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.991	0.03	0.25	5	0	99.8	80-120	0			
Barium	5.35	0.23	0.25	5	0	107	80-120	0			
Cadmium	4.92	0.015	0.10	5	0	98.4	80-120	0			
Chromium	5.543	0.11	0.25	5	0	111	80-120	0			
Lead	5.12	0.12	0.25	5	0	102	80-120	0			
Selenium	5.034	0.23	0.25	5	0	101	80-120	0			B
Silver	5.151	0.033	0.25	5	0	103	80-120	0			

MS		Sample ID: 19101701-05BMS				Units: mg/Kg		Analysis Date: 10/30/2019 09:43 P			
Client ID:		Run ID: ICPMS3_191030B				SeqNo: 6024009		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.5	0.043	0.36	7.153	5.207	87.9	75-125	0			
Barium	116.9	0.33	0.36	7.153	103.7	184	75-125	0			SO
Cadmium	6.027	0.021	0.14	7.153	0.1355	82.4	75-125	0			
Chromium	17.72	0.16	0.36	7.153	9.881	110	75-125	0			
Lead	17.21	0.17	0.36	7.153	11.5	79.8	75-125	0			
Selenium	6.132	0.33	0.36	7.153	0.2195	82.7	75-125	0			B
Silver	6.095	0.047	0.36	7.153	0.008396	85.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144809** Instrument ID **ICPMS3** Method: **SW6020A**

MSD		Sample ID: 19101701-05BMSD				Units: mg/Kg		Analysis Date: 10/30/2019 09:45 P			
Client ID:		Run ID: ICPMS3_191030B				SeqNo: 6024010		Prep Date: 10/29/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	11.37	0.044	0.36	7.257	5.207	85	75-125	11.5	1.1	20	
Barium	85.62	0.33	0.36	7.257	103.7	-249	75-125	116.9	30.9	20	SRO
Cadmium	5.996	0.022	0.15	7.257	0.1355	80.8	75-125	6.027	0.528	20	
Chromium	17.4	0.16	0.36	7.257	9.881	104	75-125	17.72	1.83	20	
Lead	17.09	0.17	0.36	7.257	11.5	77	75-125	17.21	0.719	20	
Selenium	6.217	0.33	0.36	7.257	0.2195	82.6	75-125	6.132	1.37	20	B
Silver	6.116	0.048	0.36	7.257	0.008396	84.2	75-125	6.095	0.331	20	

The following samples were analyzed in this batch:

19101554-11B	19101554-12B	19101554-13B
19101554-14B	19101554-15B	19101554-17B
19101554-21B	19101554-22B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294 Instrument ID SVMS8 Method: SW846 8270D

MBLK		Sample ID: SBLKW1-144294-144294			Units: µg/L			Analysis Date: 10/22/2019 11:01 P			
Client ID:		Run ID: SVMS8_191022A			SeqNo: 6007299			Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	U	0.42	1.0								
1,2,4,5-Tetrachlorobenzene	U	0.34	5.0								
1,4-Dioxane	U	0.72	5.0								
2,2'-Oxybis(1-chloropropane)	U	0.23	1.0								
2,3,4,6-Tetrachlorophenol	U	0.45	1.0								
2,4,5-Trichlorophenol	U	0.17	1.0								
2,4,6-Trichlorophenol	U	0.25	1.0								
2,4-Dichlorophenol	U	0.35	1.0								
2,4-Dimethylphenol	U	0.36	1.0								
2,4-Dinitrophenol	U	2.6	5.0								
2,4-Dinitrotoluene	U	0.42	1.0								
2,6-Dinitrotoluene	U	0.33	1.0								
2-Chloronaphthalene	U	0.075	0.10								
2-Chlorophenol	U	0.23	1.0								
2-Methylnaphthalene	U	0.065	0.10								
2-Methylphenol	U	0.25	1.0								
2-Nitroaniline	U	0.21	1.0								
2-Nitrophenol	U	0.34	1.0								
3&4-Methylphenol	U	0.21	1.0								
3,3'-Dichlorobenzidine	U	0.46	5.0								
3-Nitroaniline	U	0.64	1.0								
4,6-Dinitro-2-methylphenol	U	0.27	1.0								
4-Bromophenyl phenyl ether	U	0.33	1.0								
4-Chloro-3-methylphenol	U	0.26	1.0								
4-Chloroaniline	U	0.34	1.0								
4-Chlorophenyl phenyl ether	U	0.31	1.0								
4-Nitroaniline	U	0.57	1.0								
4-Nitrophenol	U	0.24	5.0								
Acenaphthene	U	0.081	0.10								
Acenaphthylene	U	0.075	0.10								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	0.10								
Atrazine	U	0.35	1.0								
Benzaldehyde	U	0.52	1.0								
Benzo(a)anthracene	U	0.099	0.10								
Benzo(a)pyrene	U	0.044	0.10								
Benzo(b)fluoranthene	U	0.051	0.10								
Benzo(g,h,i)perylene	U	0.03	0.10								
Benzo(k)fluoranthene	U	0.048	0.10								
Bis(2-chloroethoxy)methane	U	0.29	1.0								
Bis(2-chloroethyl)ether	U	0.37	1.0								
Bis(2-ethylhexyl)phthalate	U	0.4	1.0								
Butyl benzyl phthalate	U	0.3	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294		Instrument ID SVMS8		Method: SW846 8270D	
Caprolactam	U	0.96	5.0		
Carbazole	U	0.24	1.0		
Chrysene	U	0.048	0.10		
Dibenzo(a,h)anthracene	U	0.073	0.10		
Dibenzofuran	U	0.23	1.0		
Diethyl phthalate	U	0.17	1.0		
Dimethyl phthalate	U	0.18	1.0		
Di-n-butyl phthalate	U	0.21	1.0		
Di-n-octyl phthalate	U	0.53	1.0		
Fluoranthene	U	0.038	0.10		
Fluorene	U	0.051	0.10		
Hexachlorobenzene	U	0.44	1.0		
Hexachlorobutadiene	U	0.28	1.0		
Hexachlorocyclopentadiene	U	1.1	5.0		
Hexachloroethane	U	0.21	1.0		
Indeno(1,2,3-cd)pyrene	U	0.067	0.10		
Isophorone	U	0.34	5.0		
Naphthalene	U	0.067	0.10		
Nitrobenzene	U	0.26	1.0		
N-Nitrosodi-n-propylamine	U	0.35	1.0		
N-Nitrosodiphenylamine	U	0.49	1.0		
Pentachlorophenol	U	0.97	5.0		
Phenanthrene	U	0.081	0.10		
Phenol	U	0.21	1.0		
Pyrene	U	0.036	0.10		
<i>Surr: 2,4,6-Tribromophenol</i>	<i>30.61</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>30.65</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>16.51</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>31.92</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>33.25</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>
<i>Surr: Phenol-d6</i>	<i>8.81</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294 Instrument ID SVMS8 Method: SW846 8270D

LCS		Sample ID: SLCSW1-144294-144294				Units: µg/L		Analysis Date: 10/22/2019 11:23 P			
Client ID:		Run ID: SVMS8_191022A				SeqNo: 6007300		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	15.3	0.42	1.0	20	0	76.5	40-85	0			
1,2,4,5-Tetrachlorobenzene	14.47	0.34	5.0	20	0	72.4	34-82	0			
2,2'-Oxybis(1-chloropropane)	15.12	0.23	1.0	20	0	75.6	33-83	0			
2,3,4,6-Tetrachlorophenol	16.55	0.45	1.0	20	0	82.8	43-104	0			
2,4,5-Trichlorophenol	15.75	0.17	1.0	20	0	78.8	47-84	0			
2,4,6-Trichlorophenol	15.7	0.25	1.0	20	0	78.5	45-83	0			
2,4-Dichlorophenol	15.93	0.35	1.0	20	0	79.6	39-84	0			
2,4-Dimethylphenol	16.59	0.36	1.0	20	0	83	34-79	0			S
2,4-Dinitrophenol	12.63	2.6	5.0	20	0	63.2	11-117	0			
2,4-Dinitrotoluene	16.72	0.42	1.0	20	0	83.6	54-93	0			
2,6-Dinitrotoluene	16.43	0.33	1.0	20	0	82.2	51-90	0			
2-Chloronaphthalene	15.53	0.075	0.10	20	0	77.6	37-84	0			
2-Chlorophenol	14.73	0.23	1.0	20	0	73.6	38-83	0			
2-Methylnaphthalene	15.1	0.065	0.10	20	0	75.5	33-85	0			
2-Methylphenol	13.04	0.25	1.0	20	0	65.2	29-76	0			
2-Nitroaniline	16.5	0.21	1.0	20	0	82.5	45-94	0			
2-Nitrophenol	15.68	0.34	1.0	20	0	78.4	41-84	0			
3&4-Methylphenol	11.86	0.21	1.0	20	0	59.3	24-70	0			
3,3'-Dichlorobenzidine	15.19	0.46	5.0	20	0	76	39-96	0			
3-Nitroaniline	16.62	0.64	1.0	20	0	83.1	50-93	0			
4,6-Dinitro-2-methylphenol	16.97	0.27	1.0	20	0	84.8	23-116	0			
4-Bromophenyl phenyl ether	16.51	0.33	1.0	20	0	82.6	51-93	0			
4-Chloro-3-methylphenol	15.05	0.26	1.0	20	0	75.2	41-86	0			
4-Chloroaniline	16.09	0.34	1.0	20	0	80.4	44-92	0			
4-Chlorophenyl phenyl ether	15.71	0.31	1.0	20	0	78.6	49-89	0			
4-Nitroaniline	16.83	0.57	1.0	20	0	84.2	47-98	0			
4-Nitrophenol	5.6	0.24	5.0	20	0	28	10-43	0			
Acenaphthene	15.57	0.081	0.10	20	0	77.8	42-85	0			
Acenaphthylene	16.16	0.075	0.10	20	0	80.8	42-88	0			
Acetophenone	15.85	0.37	1.0	20	0	79.2	39-91	0			
Anthracene	16.57	0.028	0.10	20	0	82.8	55-93	0			
Atrazine	18.83	0.35	1.0	20	0	94.2	52-100	0			
Benzaldehyde	16.14	0.52	1.0	20	0	80.7	42-110	0			
Benzo(a)anthracene	16.39	0.099	0.10	20	0	82	56-91	0			
Benzo(a)pyrene	16.28	0.044	0.10	20	0	81.4	55-96	0			
Benzo(b)fluoranthene	16.13	0.051	0.10	20	0	80.6	55-99	0			
Benzo(g,h,i)perylene	16.31	0.03	0.10	20	0	81.6	44-102	0			
Benzo(k)fluoranthene	16.32	0.048	0.10	20	0	81.6	57-96	0			
Bis(2-chloroethoxy)methane	15.77	0.29	1.0	20	0	78.8	39-88	0			
Bis(2-chloroethyl)ether	14.94	0.37	1.0	20	0	74.7	36-91	0			
Bis(2-ethylhexyl)phthalate	17.61	0.4	1.0	20	0	88	39-113	0			
Butyl benzyl phthalate	15.85	0.3	1.0	20	0	79.2	49-97	0			
Carbazole	17.12	0.24	1.0	20	0	85.6	59-92	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294		Instrument ID SVMS8		Method: SW846 8270D				
Chrysene	16.05	0.048	0.10	20	0	80.2	55-92	0
Dibenzo(a,h)anthracene	15.97	0.073	0.10	20	0	79.8	47-100	0
Dibenzofuran	15.62	0.23	1.0	20	0	78.1	44-89	0
Diethyl phthalate	16.75	0.17	1.0	20	0	83.8	54-95	0
Dimethyl phthalate	15.63	0.18	1.0	20	0	78.2	51-92	0
Di-n-butyl phthalate	16.95	0.21	1.0	20	0	84.8	57-98	0
Di-n-octyl phthalate	16.51	0.53	1.0	20	0	82.6	36-117	0
Fluoranthene	16.75	0.038	0.10	20	0	83.8	59-93	0
Fluorene	16.06	0.051	0.10	20	0	80.3	47-91	0
Hexachlorobenzene	15.74	0.44	1.0	20	0	78.7	53-89	0
Hexachlorobutadiene	13.29	0.28	1.0	20	0	66.4	11-83	0
Hexachlorocyclopentadiene	13.43	1.1	5.0	20	0	67.2	14-75	0
Hexachloroethane	13.6	0.21	1.0	20	0	68	10-85	0
Indeno(1,2,3-cd)pyrene	16.18	0.067	0.10	20	0	80.9	46-102	0
Isophorone	16.53	0.34	5.0	20	0	82.6	42-90	0
Naphthalene	14.09	0.067	0.10	20	0	70.4	26-78	0
Nitrobenzene	15.9	0.26	1.0	20	0	79.5	38-86	0
N-Nitrosodi-n-propylamine	16.49	0.35	1.0	20	0	82.4	39-95	0
N-Nitrosodiphenylamine	16.43	0.49	1.0	20	0	82.2	47-94	0
Pentachlorophenol	15.09	0.97	5.0	20	0	75.4	37-94	0
Phenanthrene	15.65	0.081	0.10	20	0	78.2	51-90	0
Phenol	5.46	0.21	1.0	20	0	27.3	10-40	0
Pyrene	16.41	0.036	0.10	20	0	82	48-98	0
<i>Surr: 2,4,6-Tribromophenol</i>	40.68	0	0	50	0	81.4	27-83	0
<i>Surr: 2-Fluorobiphenyl</i>	37.27	0	0	50	0	74.5	26-79	0
<i>Surr: 2-Fluorophenol</i>	22.51	0	0	50	0	45	13-56	0
<i>Surr: 4-Terphenyl-d14</i>	31.67	0	0	50	0	63.3	43-106	0
<i>Surr: Nitrobenzene-d5</i>	40.65	0	0	50	0	81.3	29-80	0
<i>Surr: Phenol-d6</i>	13.47	0	0	50	0	26.9	10-35	0

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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294 Instrument ID SVMS8 Method: SW846 8270D

MS Sample ID: 19101332-02A MS					Units: µg/L			Analysis Date: 10/23/2019 12:28 A			
Client ID:		Run ID: SVMS8_191022A			SeqNo: 6007301		Prep Date: 10/21/2019		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	275.4	8.4	20	400	0	68.8	40-85	0			
1,2,4,5-Tetrachlorobenzene	264.2	6.8	100	400	0	66	34-82	0			
2,2'-Oxybis(1-chloropropane)	280	4.6	20	400	0	70	33-83	0			
2,3,4,6-Tetrachlorophenol	284.8	9	20	400	0	71.2	43-104	0			
2,4,5-Trichlorophenol	284	3.4	20	400	0	71	47-84	0			
2,4,6-Trichlorophenol	288.8	5	20	400	0	72.2	45-83	0			
2,4-Dichlorophenol	294.8	7	20	400	0	73.7	39-84	0			
2,4-Dimethylphenol	301.4	7.2	20	400	0	75.4	34-79	0			
2,4-Dinitrophenol	284.2	52	100	400	0	71	11-117	0			
2,4-Dinitrotoluene	295.2	8.4	20	400	0	73.8	54-93	0			
2,6-Dinitrotoluene	291	6.6	20	400	0	72.8	51-90	0			
2-Chloronaphthalene	289	1.5	2.0	400	0	72.2	37-84	0			
2-Chlorophenol	266.2	4.6	20	400	0	66.6	38-83	0			
2-Methylnaphthalene	285	1.3	2.0	400	4.4	70.2	33-85	0			
2-Methylphenol	224	5	20	400	0	56	29-76	0			
2-Nitroaniline	297.8	4.2	20	400	0	74.4	45-94	0			
2-Nitrophenol	287.4	6.8	20	400	0	71.8	41-84	0			
3&4-Methylphenol	194	4.2	20	400	0	48.5	24-70	0			
3,3'-Dichlorobenzidine	244.2	9.2	100	400	0	61	39-96	0			
3-Nitroaniline	294.4	13	20	400	0	73.6	50-93	0			
4,6-Dinitro-2-methylphenol	288.4	5.4	20	400	0	72.1	23-116	0			
4-Bromophenyl phenyl ether	289.4	6.6	20	400	0	72.4	51-93	0			
4-Chloro-3-methylphenol	265.6	5.2	20	400	0	66.4	41-86	0			
4-Chloroaniline	278	6.8	20	400	0	69.5	44-92	0			
4-Chlorophenyl phenyl ether	290	6.2	20	400	0	72.5	49-89	0			
4-Nitroaniline	297.8	11	20	400	0	74.4	47-98	0			
4-Nitrophenol	81.6	4.8	100	400	0	20.4	10-43	0			J
Acenaphthene	291.6	1.6	2.0	400	0	72.9	42-85	0			
Acenaphthylene	293.8	1.5	2.0	400	0	73.4	42-88	0			
Acetophenone	292.2	7.4	20	400	0	73	39-91	0			
Anthracene	287	0.56	2.0	400	0	71.8	55-93	0			
Atrazine	327	7	20	400	0	81.8	52-100	0			
Benzaldehyde	293	10	20	400	0	73.2	42-110	0			
Benzo(a)anthracene	294	2	2.0	400	0	73.5	56-91	0			
Benzo(a)pyrene	287.2	0.88	2.0	400	0	71.8	55-96	0			
Benzo(b)fluoranthene	273	1	2.0	400	0	68.2	55-99	0			
Benzo(g,h,i)perylene	282	0.6	2.0	400	0	70.5	44-102	0			
Benzo(k)fluoranthene	292.8	0.96	2.0	400	0	73.2	57-96	0			
Bis(2-chloroethoxy)methane	288.4	5.8	20	400	0	72.1	39-88	0			
Bis(2-chloroethyl)ether	281.6	7.4	20	400	0	70.4	36-91	0			
Bis(2-ethylhexyl)phthalate	304.2	8	20	400	0	76	39-113	0			
Butyl benzyl phthalate	284.2	6	20	400	0	71	49-97	0			
Carbazole	299.8	4.8	20	400	0	75	59-92	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294		Instrument ID SVMS8		Method: SW846 8270D				
Chrysene	288.4	0.96	2.0	400	0	72.1	55-92	0
Dibenzo(a,h)anthracene	271.6	1.5	2.0	400	0	67.9	47-100	0
Dibenzofuran	286.4	4.6	20	400	0	71.6	44-89	0
Diethyl phthalate	298.4	3.4	20	400	0	74.6	54-95	0
Dimethyl phthalate	279.8	3.6	20	400	0	70	51-92	0
Di-n-butyl phthalate	297.2	4.2	20	400	0	74.3	57-98	0
Di-n-octyl phthalate	274	11	20	400	0	68.5	36-117	0
Fluoranthene	290.2	0.76	2.0	400	0	72.6	59-93	0
Fluorene	290.4	1	2.0	400	0	72.6	47-91	0
Hexachlorobenzene	274.8	8.8	20	400	0	68.7	53-89	0
Hexachlorobutadiene	256.4	5.6	20	400	0	64.1	11-83	0
Hexachlorocyclopentadiene	264.2	22	100	400	0	66	14-75	0
Hexachloroethane	254.8	4.2	20	400	0	63.7	10-85	0
Indeno(1,2,3-cd)pyrene	275	1.3	2.0	400	0	68.8	46-102	0
Isophorone	302	6.8	100	400	0	75.5	42-90	0
Naphthalene	271.2	1.3	2.0	400	13	64.6	26-78	0
Nitrobenzene	300.8	5.2	20	400	0	75.2	38-86	0
N-Nitrosodi-n-propylamine	298	7	20	400	0	74.5	39-95	0
N-Nitrosodiphenylamine	288	9.8	20	400	0	72	47-94	0
Pentachlorophenol	282	19	100	400	0	70.5	37-94	0
Phenanthrene	280.6	1.6	2.0	400	0	70.2	51-90	0
Phenol	106.8	4.2	20	400	0	26.7	10-40	0
Pyrene	295.4	0.72	2.0	400	0	73.8	48-98	0
Surr: 2,4,6-Tribromophenol	716.6	0	0	1000	0	71.7	27-83	0
Surr: 2-Fluorobiphenyl	703.4	0	0	1000	0	70.3	26-79	0
Surr: 2-Fluorophenol	367.4	0	0	1000	0	36.7	13-56	0
Surr: 4-Terphenyl-d14	581	0	0	1000	0	58.1	43-106	0
Surr: Nitrobenzene-d5	754.2	0	0	1000	0	75.4	29-80	0
Surr: Phenol-d6	208.8	0	0	1000	0	20.9	10-35	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294 Instrument ID SVMS8 Method: SW846 8270D

MSD					Sample ID: 19101332-02A MSD			Units: µg/L		Analysis Date: 10/23/2019 12:49 A		
Client ID:					Run ID: SVMS8_191022A			SeqNo: 6007302		Prep Date: 10/21/2019		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1'-Biphenyl	276.6	8.4	20	400	0	69.2	40-85	275.4	0.435	30		
1,2,4,5-Tetrachlorobenzene	265.6	6.8	100	400	0	66.4	34-82	264.2	0.529	30		
2,2'-Oxybis(1-chloropropane)	284.4	4.6	20	400	0	71.1	33-83	280	1.56	30		
2,3,4,6-Tetrachlorophenol	295.4	9	20	400	0	73.8	43-104	284.8	3.65	30		
2,4,5-Trichlorophenol	289.6	3.4	20	400	0	72.4	47-84	284	1.95	30		
2,4,6-Trichlorophenol	296.8	5	20	400	0	74.2	45-83	288.8	2.73	30		
2,4-Dichlorophenol	296.8	7	20	400	0	74.2	39-84	294.8	0.676	30		
2,4-Dimethylphenol	300	7.2	20	400	0	75	34-79	301.4	0.466	30		
2,4-Dinitrophenol	299.4	52	100	400	0	74.8	11-117	284.2	5.21	30		
2,4-Dinitrotoluene	303.2	8.4	20	400	0	75.8	54-93	295.2	2.67	30		
2,6-Dinitrotoluene	303.6	6.6	20	400	0	75.9	51-90	291	4.24	30		
2-Chloronaphthalene	289.4	1.5	2.0	400	0	72.4	37-84	289	0.138	30		
2-Chlorophenol	266.2	4.6	20	400	0	66.6	38-83	266.2	0	30		
2-Methylnaphthalene	286.6	1.3	2.0	400	4.4	70.6	33-85	285	0.56	30		
2-Methylphenol	222.4	5	20	400	0	55.6	29-76	224	0.717	30		
2-Nitroaniline	305	4.2	20	400	0	76.2	45-94	297.8	2.39	30		
2-Nitrophenol	289.2	6.8	20	400	0	72.3	41-84	287.4	0.624	30		
3&4-Methylphenol	196.4	4.2	20	400	0	49.1	24-70	194	1.23	30		
3,3'-Dichlorobenzidine	225	9.2	100	400	0	56.2	39-96	244.2	8.18	30		
3-Nitroaniline	304.2	13	20	400	0	76	50-93	294.4	3.27	30		
4,6-Dinitro-2-methylphenol	302.4	5.4	20	400	0	75.6	23-116	288.4	4.74	30		
4-Bromophenyl phenyl ether	299	6.6	20	400	0	74.8	51-93	289.4	3.26	30		
4-Chloro-3-methylphenol	268.8	5.2	20	400	0	67.2	41-86	265.6	1.2	30		
4-Chloroaniline	299.4	6.8	20	400	0	74.8	44-92	278	7.41	30		
4-Chlorophenyl phenyl ether	292.2	6.2	20	400	0	73	49-89	290	0.756	30		
4-Nitroaniline	312.4	11	20	400	0	78.1	47-98	297.8	4.79	30		
4-Nitrophenol	80.6	4.8	100	400	0	20.2	10-43	81.6	0	30	J	
Acenaphthene	293.2	1.6	2.0	400	0	73.3	42-85	291.6	0.547	30		
Acenaphthylene	296.6	1.5	2.0	400	0	74.2	42-88	293.8	0.949	30		
Acetophenone	295.6	7.4	20	400	0	73.9	39-91	292.2	1.16	30		
Anthracene	306.4	0.56	2.0	400	0	76.6	55-93	287	6.54	30		
Atrazine	347	7	20	400	0	86.8	52-100	327	5.93	30		
Benzaldehyde	309	10	20	400	0	77.2	42-110	293	5.32	30		
Benzo(a)anthracene	302.2	2	2.0	400	0	75.6	56-91	294	2.75	30		
Benzo(a)pyrene	299.4	0.88	2.0	400	0	74.8	55-96	287.2	4.16	30		
Benzo(b)fluoranthene	292.4	1	2.0	400	0	73.1	55-99	273	6.86	30		
Benzo(g,h,i)perylene	292.2	0.6	2.0	400	0	73	44-102	282	3.55	30		
Benzo(k)fluoranthene	299	0.96	2.0	400	0	74.8	57-96	292.8	2.1	30		
Bis(2-chloroethoxy)methane	290.2	5.8	20	400	0	72.6	39-88	288.4	0.622	30		
Bis(2-chloroethyl)ether	283.6	7.4	20	400	0	70.9	36-91	281.6	0.708	30		
Bis(2-ethylhexyl)phthalate	319.6	8	20	400	0	79.9	39-113	304.2	4.94	30		
Butyl benzyl phthalate	297	6	20	400	0	74.2	49-97	284.2	4.4	30		
Carbazole	316.2	4.8	20	400	0	79	59-92	299.8	5.32	30		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144294		Instrument ID SVMS8		Method: SW846 8270D						
Chrysene	302.8	0.96	2.0	400	0	75.7	55-92	288.4	4.87	30
Dibenzo(a,h)anthracene	280.8	1.5	2.0	400	0	70.2	47-100	271.6	3.33	30
Dibenzofuran	292.6	4.6	20	400	0	73.2	44-89	286.4	2.14	30
Diethyl phthalate	307.6	3.4	20	400	0	76.9	54-95	298.4	3.04	30
Dimethyl phthalate	288.4	3.6	20	400	0	72.1	51-92	279.8	3.03	30
Di-n-butyl phthalate	313.2	4.2	20	400	0	78.3	57-98	297.2	5.24	30
Di-n-octyl phthalate	297.6	11	20	400	0	74.4	36-117	274	8.26	30
Fluoranthene	306.8	0.76	2.0	400	0	76.7	59-93	290.2	5.56	30
Fluorene	298	1	2.0	400	0	74.5	47-91	290.4	2.58	30
Hexachlorobenzene	288.6	8.8	20	400	0	72.2	53-89	274.8	4.9	30
Hexachlorobutadiene	265.4	5.6	20	400	0	66.4	11-83	256.4	3.45	30
Hexachlorocyclopentadiene	283.6	22	100	400	0	70.9	14-75	264.2	7.08	30
Hexachloroethane	272.2	4.2	20	400	0	68	10-85	254.8	6.6	30
Indeno(1,2,3-cd)pyrene	275.8	1.3	2.0	400	0	69	46-102	275	0.29	30
Isophorone	306.2	6.8	100	400	0	76.6	42-90	302	1.38	30
Naphthalene	271.8	1.3	2.0	400	13	64.7	26-78	271.2	0.221	30
Nitrobenzene	299.4	5.2	20	400	0	74.8	38-86	300.8	0.467	30
N-Nitrosodi-n-propylamine	295	7	20	400	0	73.8	39-95	298	1.01	30
N-Nitrosodiphenylamine	296.2	9.8	20	400	0	74	47-94	288	2.81	30
Pentachlorophenol	299	19	100	400	0	74.8	37-94	282	5.85	30
Phenanthrene	291	1.6	2.0	400	0	72.8	51-90	280.6	3.64	30
Phenol	85	4.2	20	400	0	21.2	10-40	106.8	22.7	30
Pyrene	313	0.72	2.0	400	0	78.2	48-98	295.4	5.79	30
<i>Surr: 2,4,6-Tribromophenol</i>	755.6	0	0	1000	0	75.6	27-83	716.6	5.3	40
<i>Surr: 2-Fluorobiphenyl</i>	706.8	0	0	1000	0	70.7	26-79	703.4	0.482	40
<i>Surr: 2-Fluorophenol</i>	366	0	0	1000	0	36.6	13-56	367.4	0.382	40
<i>Surr: 4-Terphenyl-d14</i>	610.8	0	0	1000	0	61.1	43-106	581	5	40
<i>Surr: Nitrobenzene-d5</i>	749.2	0	0	1000	0	74.9	29-80	754.2	0.665	40
<i>Surr: Phenol-d6</i>	206.2	0	0	1000	0	20.6	10-35	208.8	1.25	40

The following samples were analyzed in this batch:

19101554-16B	19101554-18B	19101554-19B
19101554-20B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144295** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-144295-144295				Units: µg/Kg		Analysis Date: 10/22/2019 11:44 P			
Client ID:		Run ID: SVMS8_191022A				SeqNo: 6007389		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	U	5.4	33								
1,2,4,5-Tetrachlorobenzene	U	26	330								
1,4-Dioxane	U	24	170								
2,2'-Oxybis(1-chloropropane)	U	7.8	33								
2,3,4,6-Tetrachlorophenol	U	8.7	67								
2,4,5-Trichlorophenol	U	9.1	33								
2,4,6-Trichlorophenol	U	8.9	33								
2,4-Dichlorophenol	U	7	33								
2,4-Dimethylphenol	U	6.8	33								
2,4-Dinitrophenol	U	18	33								
2,4-Dinitrotoluene	U	8.7	33								
2,6-Dinitrotoluene	U	5.5	33								
2-Chloronaphthalene	U	4.7	6.7								
2-Chlorophenol	U	10	33								
2-Methylnaphthalene	U	3.4	6.7								
2-Methylphenol	U	9	33								
2-Nitroaniline	U	7.6	33								
2-Nitrophenol	U	9.5	33								
3&4-Methylphenol	U	6.7	33								
3,3'-Dichlorobenzidine	U	5	170								
3-Nitroaniline	U	7.6	33								
4,6-Dinitro-2-methylphenol	U	8.4	33								
4-Bromophenyl phenyl ether	U	9	33								
4-Chloro-3-methylphenol	U	9.5	33								
4-Chloroaniline	U	5.3	67								
4-Chlorophenyl phenyl ether	U	9.2	33								
4-Nitroaniline	U	52	170								
4-Nitrophenol	U	30	33								
Acenaphthene	U	4.8	6.7								
Acenaphthylene	U	5.8	6.7								
Acetophenone	U	5.2	33								
Anthracene	U	4.7	6.7								
Atrazine	U	5.2	33								
Benzaldehyde	U	51	67								
Benzo(a)anthracene	U	5.8	6.7								
Benzo(a)pyrene	U	4.1	6.7								
Benzo(b)fluoranthene	U	5	6.7								
Benzo(g,h,i)perylene	U	5.1	6.7								
Benzo(k)fluoranthene	U	5	6.7								
Bis(2-chloroethoxy)methane	U	3.2	33								
Bis(2-chloroethyl)ether	U	9.4	33								
Bis(2-ethylhexyl)phthalate	U	5.8	33								
Butyl benzyl phthalate	U	5.6	33								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295		Instrument ID SVMS8		Method: SW846 8270D					
Caprolactam	U	11	33						
Carbazole	U	3.6	33						
Chrysene	U	5.4	6.7						
Dibenzo(a,h)anthracene	U	3.6	6.7						
Dibenzofuran	U	4.9	33						
Diethyl phthalate	U	5.1	33						
Dimethyl phthalate	U	6.5	33						
Di-n-butyl phthalate	U	6.1	33						
Di-n-octyl phthalate	U	6.4	33						
Fluoranthene	U	3.2	6.7						
Fluorene	U	4.8	6.7						
Hexachlorobenzene	U	9.7	33						
Hexachlorobutadiene	U	18	33						
Hexachlorocyclopentadiene	U	11	33						
Hexachloroethane	U	14	33						
Indeno(1,2,3-cd)pyrene	U	4.6	6.7						
Isophorone	U	6.5	170						
Naphthalene	U	4.3	6.7						
Nitrobenzene	U	11	170						
N-Nitrosodi-n-propylamine	U	5.5	33						
N-Nitrosodiphenylamine	U	3.2	33						
Pentachlorophenol	U	12	33						
Phenanthrene	U	3.1	6.7						
Phenol	U	8.3	33						
Pyrene	U	1.2	6.7						
<i>Surr: 2,4,6-Tribromophenol</i>	<i>2360</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>70.8</i>	<i>38-92</i>	<i>0</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>2641</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>79.2</i>	<i>44-107</i>	<i>0</i>	
<i>Surr: 2-Fluorophenol</i>	<i>2981</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>89.4</i>	<i>37-109</i>	<i>0</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>2303</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>69.1</i>	<i>52-123</i>	<i>0</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>2812</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>84.4</i>	<i>41-94</i>	<i>0</i>	
<i>Surr: Phenol-d6</i>	<i>2984</i>	<i>0</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>89.5</i>	<i>28-111</i>	<i>0</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295 Instrument ID SVMS8 Method: SW846 8270D

LCS		Sample ID: SLCSS1-144295-144295				Units: µg/Kg			Analysis Date: 10/23/2019 12:06 A		
Client ID:		Run ID: SVMS8_191022A				SeqNo: 6007390			Prep Date: 10/21/2019		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	1023	5.4	33	1333	0	76.8	53-97	0			
1,2,4,5-Tetrachlorobenzene	994	26	330	1333	0	74.6	51-96	0			
2,2'-Oxybis(1-chloropropane)	1056	7.8	33	1333	0	79.2	47-107	0			
2,3,4,6-Tetrachlorophenol	1003	8.7	67	1333	0	75.3	51-110	0			
2,4,5-Trichlorophenol	1039	9.1	33	1333	0	77.9	52-111	0			
2,4,6-Trichlorophenol	1055	8.9	33	1333	0	79.1	46-105	0			
2,4-Dichlorophenol	1109	7	33	1333	0	83.2	47-96	0			
2,4-Dimethylphenol	1210	6.8	33	1333	0	90.8	49-97	0			
2,4-Dinitrophenol	111.3	18	33	1333	0	8.35	10-106	0			S
2,4-Dinitrotoluene	1093	8.7	33	1333	0	82	58-110	0			
2,6-Dinitrotoluene	1093	5.5	33	1333	0	82	59-108	0			
2-Chloronaphthalene	1075	4.7	6.7	1333	0	80.6	56-104	0			
2-Chlorophenol	1117	10	33	1333	0	83.8	50-104	0			
2-Methylnaphthalene	1041	3.4	6.7	1333	0	78.1	54-96	0			
2-Methylphenol	1141	9	33	1333	0	85.6	49-105	0			
2-Nitroaniline	1092	7.6	33	1333	0	81.9	54-107	0			
2-Nitrophenol	1079	9.5	33	1333	0	81	51-94	0			
3&4-Methylphenol	1128	6.7	33	1333	0	84.6	48-105	0			
3,3'-Dichlorobenzidine	792.7	5	170	1333	0	59.5	39-99	0			
3-Nitroaniline	964	7.6	33	1333	0	72.3	17-92	0			
4,6-Dinitro-2-methylphenol	700.7	8.4	33	1333	0	52.6	32-103	0			
4-Bromophenyl phenyl ether	1077	9	33	1333	0	80.8	60-106	0			
4-Chloro-3-methylphenol	1062	9.5	33	1333	0	79.7	51-101	0			
4-Chloroaniline	752	5.3	67	1333	0	56.4	27-110	0			
4-Chlorophenyl phenyl ether	1057	9.2	33	1333	0	79.3	58-106	0			
4-Nitroaniline	1055	52	170	1333	0	79.1	21-100	0			
4-Nitrophenol	922.7	30	33	1333	0	69.2	29-120	0			
Acenaphthene	1012	4.8	6.7	1333	0	75.9	55-101	0			
Acenaphthylene	1091	5.8	6.7	1333	0	81.8	59-106	0			
Acetophenone	1082	5.2	33	1333	0	81.2	51-100	0			
Anthracene	1096	4.7	6.7	1333	0	82.2	67-105	0			
Atrazine	1235	5.2	33	1333	0	92.7	45-125	0			
Benzaldehyde	1085	51	67	1333	0	81.4	10-120	0			
Benzo(a)anthracene	1109	5.8	6.7	1333	0	83.2	68-105	0			
Benzo(a)pyrene	1092	4.1	6.7	1333	0	81.9	68-110	0			
Benzo(b)fluoranthene	1075	5	6.7	1333	0	80.7	65-110	0			
Benzo(g,h,i)perylene	1089	5.1	6.7	1333	0	81.7	60-120	0			
Benzo(k)fluoranthene	1082	5	6.7	1333	0	81.2	66-113	0			
Bis(2-chloroethoxy)methane	1079	3.2	33	1333	0	81	53-96	0			
Bis(2-chloroethyl)ether	1047	9.4	33	1333	0	78.6	47-108	0			
Bis(2-ethylhexyl)phthalate	1097	5.8	33	1333	0	82.3	59-117	0			
Butyl benzyl phthalate	1018	5.6	33	1333	0	76.4	59-106	0			
Caprolactam	1033	11	33	1333	0	77.5	42-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295		Instrument ID SVMS8		Method: SW846 8270D				
Carbazole	1132	3.6	33	1333	0	84.9	67-108	0
Chrysene	1091	5.4	6.7	1333	0	81.8	68-108	0
Dibenzo(a,h)anthracene	1033	3.6	6.7	1333	0	77.5	62-119	0
Dibenzofuran	1063	4.9	33	1333	0	79.8	60-104	0
Diethyl phthalate	1109	5.1	33	1333	0	83.2	62-111	0
Dimethyl phthalate	1037	6.5	33	1333	0	77.8	62-106	0
Di-n-butyl phthalate	1073	6.1	33	1333	0	80.5	59-105	0
Di-n-octyl phthalate	968	6.4	33	1333	0	72.6	51-123	0
Fluoranthene	1075	3.2	6.7	1333	0	80.6	67-106	0
Fluorene	1073	4.8	6.7	1333	0	80.5	59-107	0
Hexachlorobenzene	1053	9.7	33	1333	0	79	62-103	0
Hexachlorobutadiene	1021	18	33	1333	0	76.6	51-94	0
Hexachlorocyclopentadiene	1107	11	33	1333	0	83	25-120	0
Hexachloroethane	1059	14	33	1333	0	79.5	55-93	0
Indeno(1,2,3-cd)pyrene	1001	4.6	6.7	1333	0	75.1	56-120	0
Isophorone	1095	6.5	170	1333	0	82.2	52-99	0
Naphthalene	990.7	4.3	6.7	1333	0	74.3	46-98	0
Nitrobenzene	1127	11	170	1333	0	84.6	53-95	0
N-Nitrosodi-n-propylamine	1083	5.5	33	1333	0	81.3	50-104	0
N-Nitrosodiphenylamine	1123	3.2	33	1333	0	84.2	63-107	0
Pentachlorophenol	896.7	12	33	1333	0	67.3	34-106	0
Phenanthrene	1055	3.1	6.7	1333	0	79.2	66-101	0
Phenol	1099	8.3	33	1333	0	82.4	44-109	0
Pyrene	1153	1.2	6.7	1333	0	86.5	60-119	0
<i>Surr: 2,4,6-Tribromophenol</i>	2776	0	0	3333	0	83.3	38-92	0
<i>Surr: 2-Fluorobiphenyl</i>	2595	0	0	3333	0	77.9	44-107	0
<i>Surr: 2-Fluorophenol</i>	2950	0	0	3333	0	88.5	37-109	0
<i>Surr: 4-Terphenyl-d14</i>	2247	0	0	3333	0	67.4	52-123	0
<i>Surr: Nitrobenzene-d5</i>	2839	0	0	3333	0	85.2	41-94	0
<i>Surr: Phenol-d6</i>	2887	0	0	3333	0	86.6	28-111	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295 Instrument ID SVMS8 Method: SW846 8270D

MS					Units: µg/Kg			Analysis Date: 10/23/2019 01:32 A			
Client ID: SB06-01-03			Run ID: SVMS8_191022A		SeqNo: 6007391		Prep Date: 10/21/2019		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	945.3	5.3	32	1296	0	72.9	53-97	0			
1,2,4,5-Tetrachlorobenzene	934.9	25	320	1296	0	72.1	51-96	0			
2,2'-Oxybis(1-chloropropane)	991.3	7.6	32	1296	0	76.5	47-107	0			
2,3,4,6-Tetrachlorophenol	950.5	8.4	65	1296	0	73.3	51-110	0			
2,4,5-Trichlorophenol	981.6	8.8	32	1296	0	75.7	52-111	0			
2,4,6-Trichlorophenol	1004	8.6	32	1296	0	77.5	46-105	0			
2,4-Dichlorophenol	1052	6.8	32	1296	0	81.1	47-96	0			
2,4-Dimethylphenol	1130	6.6	32	1296	0	87.2	49-97	0			
2,4-Dinitrophenol	610.1	18	32	1296	0	47.1	10-106	0			
2,4-Dinitrotoluene	1002	8.4	32	1296	0	77.3	58-110	0			
2,6-Dinitrotoluene	992.6	5.3	32	1296	0	76.6	59-108	0			
2-Chloronaphthalene	1006	4.5	6.5	1296	0	77.6	56-104	0			
2-Chlorophenol	1051	10	32	1296	0	81.1	50-104	0			
2-Methylnaphthalene	970.6	3.3	6.5	1296	0	74.9	54-96	0			
2-Methylphenol	1059	8.8	32	1296	0	81.7	49-105	0			
2-Nitroaniline	1013	7.4	32	1296	0	78.2	54-107	0			
2-Nitrophenol	1010	9.2	32	1296	0	77.9	51-94	0			
3&4-Methylphenol	1060	6.5	32	1296	0	81.8	48-105	0			
3,3'-Dichlorobenzidine	793.6	4.8	160	1296	0	61.2	39-99	0			
3-Nitroaniline	962.8	7.4	32	1296	0	74.3	17-92	0			
4,6-Dinitro-2-methylphenol	989.4	8.1	32	1296	0	76.3	32-103	0			
4-Bromophenyl phenyl ether	1009	8.7	32	1296	0	77.9	60-106	0			
4-Chloro-3-methylphenol	987.4	9.2	32	1296	0	76.2	51-101	0			
4-Chloroaniline	866.2	5.1	65	1296	0	66.8	27-110	0			
4-Chlorophenyl phenyl ether	984.8	9	32	1296	0	76	58-106	0			
4-Nitroaniline	955.7	50	160	1296	0	73.7	21-100	0			
4-Nitrophenol	984.8	29	32	1296	0	76	29-120	0			
Acenaphthene	980.9	4.7	6.5	1296	0	75.7	55-101	0			
Acenaphthylene	1011	5.6	6.5	1296	0	78	59-106	0			
Acetophenone	1017	5.1	32	1296	0	78.5	51-100	0			
Anthracene	1027	4.6	6.5	1296	0	79.2	67-105	0			
Atrazine	1108	5.1	32	1296	0	85.5	45-125	0			
Benzaldehyde	1046	50	65	1296	0	80.7	10-120	0			
Benzo(a)anthracene	1011	5.6	6.5	1296	0	78	68-105	0			
Benzo(a)pyrene	1067	4	6.5	1296	0	82.3	68-110	0			
Benzo(b)fluoranthene	1011	4.8	6.5	1296	0	78	65-110	0			
Benzo(g,h,i)perylene	1057	5	6.5	1296	0	81.5	60-120	0			
Benzo(k)fluoranthene	996.5	4.9	6.5	1296	0	76.9	66-113	0			
Bis(2-chloroethoxy)methane	990.7	3.1	32	1296	0	76.4	53-96	0			
Bis(2-chloroethyl)ether	986.8	9.2	32	1296	0	76.1	47-108	0			
Bis(2-ethylhexyl)phthalate	1054	5.6	32	1296	0	81.3	59-117	0			
Butyl benzyl phthalate	984.2	5.5	32	1296	0	75.9	59-106	0			
Caprolactam	875.3	11	32	1296	0	67.5	42-105	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295		Instrument ID SVMS8		Method: SW846 8270D				
Carbazole	1049	3.5	32	1296	0	80.9	67-108	0
Chrysene	997.1	5.2	6.5	1296	0	76.9	68-108	0
Dibenzo(a,h)anthracene	1015	3.5	6.5	1296	0	78.3	62-119	0
Dibenzofuran	979	4.8	32	1296	0	75.5	60-104	0
Diethyl phthalate	1004	5	32	1296	0	77.4	62-111	0
Dimethyl phthalate	944	6.3	32	1296	0	72.8	62-106	0
Di-n-butyl phthalate	1002	5.9	32	1296	0	77.3	59-105	0
Di-n-octyl phthalate	1055	6.2	32	1296	0	81.4	51-123	0
Fluoranthene	1024	3.1	6.5	1296	0	79	67-106	0
Fluorene	991.3	4.7	6.5	1296	0	76.5	59-107	0
Hexachlorobenzene	974.5	9.4	32	1296	0	75.2	62-103	0
Hexachlorobutadiene	948.5	18	32	1296	0	73.2	51-94	0
Hexachlorocyclopentadiene	842.2	11	32	1296	0	65	25-120	0
Hexachloroethane	990.7	13	32	1296	0	76.4	55-93	0
Indeno(1,2,3-cd)pyrene	1057	4.5	6.5	1296	0	81.6	56-120	0
Isophorone	1032	6.3	160	1296	0	79.6	52-99	0
Naphthalene	927.1	4.1	6.5	1296	0	71.5	46-98	0
Nitrobenzene	1057	11	160	1296	0	81.6	53-95	0
N-Nitrosodi-n-propylamine	993.3	5.3	32	1296	0	76.6	50-104	0
N-Nitrosodiphenylamine	1024	3.1	32	1296	0	79	63-107	0
Pentachlorophenol	931.7	12	32	1296	0	71.9	34-106	0
Phenanthrene	980.9	3	6.5	1296	0	75.7	66-101	0
Phenol	1082	8.1	32	1296	0	83.5	44-109	0
Pyrene	1032	1.2	6.5	1296	0	79.6	60-119	0
<i>Surr: 2,4,6-Tribromophenol</i>	<i>2601</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>80.2</i>	<i>38-92</i>	<i>0</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>2496</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>77</i>	<i>44-107</i>	<i>0</i>
<i>Surr: 2-Fluorophenol</i>	<i>2809</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>86.6</i>	<i>37-109</i>	<i>0</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>2002</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>61.8</i>	<i>52-123</i>	<i>0</i>
<i>Surr: Nitrobenzene-d5</i>	<i>2716</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>83.8</i>	<i>41-94</i>	<i>0</i>
<i>Surr: Phenol-d6</i>	<i>2735</i>	<i>0</i>	<i>0</i>	<i>3241</i>	<i>0</i>	<i>84.4</i>	<i>28-111</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295 Instrument ID SVMS8 Method: SW846 8270D

MSD Sample ID: 19101554-13B MSD					Units: µg/Kg			Analysis Date: 10/23/2019 01:54 A			
Client ID: SB06-01-03			Run ID: SVMS8_191022A		SeqNo: 6007392		Prep Date: 10/21/2019		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1'-Biphenyl	1039	5.4	33	1329	0	78.2	53-97	945.3	9.42	30	
1,2,4,5-Tetrachlorobenzene	1023	26	330	1329	0	77	51-96	934.9	9.04	30	
2,2'-Oxybis(1-chloropropane)	1049	7.8	33	1329	0	79	47-107	991.3	5.69	30	
2,3,4,6-Tetrachlorophenol	1090	8.7	67	1329	0	82	51-110	950.5	13.7	30	
2,4,5-Trichlorophenol	1092	9.1	33	1329	0	82.2	52-111	981.6	10.6	30	
2,4,6-Trichlorophenol	1114	8.8	33	1329	0	83.8	46-105	1004	10.3	30	
2,4-Dichlorophenol	1162	7	33	1329	0	87.4	47-96	1052	9.95	30	
2,4-Dimethylphenol	1269	6.8	33	1329	0	95.5	49-97	1130	11.6	30	
2,4-Dinitrophenol	559.6	18	33	1329	0	42.1	10-106	610.1	8.64	30	
2,4-Dinitrotoluene	1116	8.7	33	1329	0	84	58-110	1002	10.8	30	
2,6-Dinitrotoluene	1118	5.5	33	1329	0	84.2	59-108	992.6	11.9	30	
2-Chloronaphthalene	1089	4.6	6.6	1329	0	81.9	56-104	1006	7.86	30	
2-Chlorophenol	1150	10	33	1329	0	86.5	50-104	1051	8.98	30	
2-Methylnaphthalene	1065	3.4	6.6	1329	0	80.2	54-96	970.6	9.31	30	
2-Methylphenol	1161	9	33	1329	0	87.4	49-105	1059	9.16	30	
2-Nitroaniline	1132	7.6	33	1329	0	85.2	54-107	1013	11.1	30	
2-Nitrophenol	1118	9.5	33	1329	0	84.2	51-94	1010	10.2	30	
3&4-Methylphenol	1155	6.7	33	1329	0	86.9	48-105	1060	8.58	30	
3,3'-Dichlorobenzidine	960.3	4.9	170	1329	0	72.3	39-99	793.6	19	30	
3-Nitroaniline	1070	7.6	33	1329	0	80.5	17-92	962.8	10.5	30	
4,6-Dinitro-2-methylphenol	1039	8.3	33	1329	0	78.2	32-103	989.4	4.93	30	
4-Bromophenyl phenyl ether	1089	8.9	33	1329	0	81.9	60-106	1009	7.54	30	
4-Chloro-3-methylphenol	1119	9.5	33	1329	0	84.2	51-101	987.4	12.5	30	
4-Chloroaniline	994.2	5.3	67	1329	0	74.8	27-110	866.2	13.8	30	
4-Chlorophenyl phenyl ether	1075	9.2	33	1329	0	80.9	58-106	984.8	8.72	30	
4-Nitroaniline	1135	52	170	1329	0	85.4	21-100	955.7	17.2	30	
4-Nitrophenol	1049	30	33	1329	0	79	29-120	984.8	6.35	30	
Acenaphthene	1057	4.8	6.6	1329	0	79.5	55-101	980.9	7.44	30	
Acenaphthylene	1112	5.8	6.6	1329	0	83.7	59-106	1011	9.46	30	
Acetophenone	1087	5.2	33	1329	0	81.8	51-100	1017	6.59	30	
Anthracene	1121	4.7	6.6	1329	0	84.4	67-105	1027	8.77	30	
Atrazine	1257	5.2	33	1329	0	94.6	45-125	1108	12.6	30	
Benzaldehyde	1114	51	67	1329	0	83.8	10-120	1046	6.24	30	
Benzo(a)anthracene	1120	5.7	6.6	1329	0	84.3	68-105	1011	10.2	30	
Benzo(a)pyrene	1186	4.1	6.6	1329	0	89.2	68-110	1067	10.5	30	
Benzo(b)fluoranthene	1172	5	6.6	1329	0	88.2	65-110	1011	14.7	30	
Benzo(g,h,i)perylene	1142	5.1	6.6	1329	0	85.9	60-120	1057	7.73	30	
Benzo(k)fluoranthene	1073	5	6.6	1329	0	80.7	66-113	996.5	7.36	30	
Bis(2-chloroethoxy)methane	1078	3.2	33	1329	0	81.1	53-96	990.7	8.44	30	
Bis(2-chloroethyl)ether	1051	9.4	33	1329	0	79.1	47-108	986.8	6.34	30	
Bis(2-ethylhexyl)phthalate	1267	5.8	33	1329	0	95.3	59-117	1054	18.4	30	
Butyl benzyl phthalate	1152	5.6	33	1329	0	86.7	59-106	984.2	15.7	30	
Caprolactam	1007	11	33	1329	0	75.8	42-105	875.3	14	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: 144295		Instrument ID SVMS8			Method: SW846 8270D					
Carbazole	1152	3.6	33	1329	0	86.7	67-108	1049	9.33	30
Chrysene	1097	5.4	6.6	1329	0	82.5	68-108	997.1	9.5	30
Dibenzo(a,h)anthracene	1137	3.6	6.6	1329	0	85.6	62-119	1015	11.3	30
Dibenzofuran	1085	4.9	33	1329	0	81.7	60-104	979	10.3	30
Diethyl phthalate	1113	5.1	33	1329	0	83.7	62-111	1004	10.3	30
Dimethyl phthalate	1043	6.5	33	1329	0	78.5	62-106	944	9.94	30
Di-n-butyl phthalate	1123	6.1	33	1329	0	84.5	59-105	1002	11.4	30
Di-n-octyl phthalate	1321	6.4	33	1329	0	99.4	51-123	1055	22.3	30
Fluoranthene	1137	3.2	6.6	1329	0	85.6	67-106	1024	10.4	30
Fluorene	1091	4.8	6.6	1329	0	82.1	59-107	991.3	9.54	30
Hexachlorobenzene	1037	9.7	33	1329	0	78.1	62-103	974.5	6.26	30
Hexachlorobutadiene	1029	18	33	1329	0	77.4	51-94	948.5	8.12	30
Hexachlorocyclopentadiene	988.2	11	33	1329	0	74.4	25-120	842.2	16	30
Hexachloroethane	1059	14	33	1329	0	79.7	55-93	990.7	6.64	30
Indeno(1,2,3-cd)pyrene	1214	4.6	6.6	1329	0	91.3	56-120	1057	13.7	30
Isophorone	1125	6.5	170	1329	0	84.7	52-99	1032	8.68	30
Naphthalene	1002	4.2	6.6	1329	0	75.4	46-98	927.1	7.72	30
Nitrobenzene	1128	11	170	1329	0	84.9	53-95	1057	6.44	30
N-Nitrosodi-n-propylamine	1078	5.5	33	1329	0	81.1	50-104	993.3	8.18	30
N-Nitrosodiphenylamine	1118	3.2	33	1329	0	84.1	63-107	1024	8.72	30
Pentachlorophenol	1022	12	33	1329	0	76.9	34-106	931.7	9.26	30
Phenanthrene	1066	3.1	6.6	1329	0	80.2	66-101	980.9	8.31	30
Phenol	1179	8.3	33	1329	0	88.7	44-109	1082	8.57	30
Pyrene	1122	1.2	6.6	1329	0	84.5	60-119	1032	8.45	30
<i>Surr: 2,4,6-Tribromophenol</i>	2753	0	0	3323	0	82.9	38-92	2601	5.69	40
<i>Surr: 2-Fluorobiphenyl</i>	2628	0	0	3323	0	79.1	44-107	2496	5.16	40
<i>Surr: 2-Fluorophenol</i>	2981	0	0	3323	0	89.7	37-109	2809	5.94	40
<i>Surr: 4-Terphenyl-d14</i>	2148	0	0	3323	0	64.6	52-123	2002	7.03	40
<i>Surr: Nitrobenzene-d5</i>	2837	0	0	3323	0	85.4	41-94	2716	4.37	40
<i>Surr: Phenol-d6</i>	2890	0	0	3323	0	87	28-111	2735	5.51	40

The following samples were analyzed in this batch:

19101554-01B	19101554-02B	19101554-03B
19101554-04B	19101554-05B	19101554-06B
19101554-07B	19101554-08B	19101554-09B
19101554-10B	19101554-11B	19101554-12B
19101554-13B	19101554-14B	19101554-15B
19101554-17B	19101554-21B	19101554-22B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144305** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: DBLKW1-144305-144305				Units: mg/L		Analysis Date: 10/25/2019 10:15 P			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025184		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	U	0.013	0.10								
ORO (C21-C35)	U	0.027	0.10								
<i>Surr: 4-Terphenyl-d14</i>	<i>0.03836</i>	<i>0</i>	<i>0</i>	<i>0.05</i>	<i>0</i>	<i>76.7</i>	<i>23-120</i>	<i>0</i>			

LCS		Sample ID: DLCSW1-144305-144305				Units: mg/L		Analysis Date: 10/25/2019 10:35 P			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025185		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	4.139	0.013	0.10	5	0	82.8	44-116	0			
ORO (C21-C35)	4.283	0.027	0.10	5	0	85.7	44-116	0			
<i>Surr: 4-Terphenyl-d14</i>	<i>0.02855</i>	<i>0</i>	<i>0</i>	<i>0.05</i>	<i>0</i>	<i>57.1</i>	<i>23-120</i>	<i>0</i>			

LCSD		Sample ID: DLCSDW1-144305-144305				Units: mg/L		Analysis Date: 10/25/2019 10:55 P			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025186		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	3.721	0.013	0.10	5	0	74.4	44-116	4.139	10.6	30	
ORO (C21-C35)	3.409	0.027	0.10	5	0	68.2	44-116	4.283	22.7	30	
<i>Surr: 4-Terphenyl-d14</i>	<i>0.02536</i>	<i>0</i>	<i>0</i>	<i>0.05</i>	<i>0</i>	<i>50.7</i>	<i>23-120</i>	<i>0.02855</i>	<i>11.8</i>		

The following samples were analyzed in this batch:

19101554-16B	19101554-18B	19101554-19B
19101554-20B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144400** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: DBLKS1-144400-144400				Units: mg/Kg		Analysis Date: 10/26/2019 03:35 A			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025199		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	U	1.5	5.0								
ORO (C21-C35)	U	1.7	5.0								
<i>Surr: 4-Terphenyl-d14</i>	2.521	0	0	3.333	0	75.6	25-137	0			

LCS		Sample ID: DLCSS1-144400-144400				Units: mg/Kg		Analysis Date: 10/26/2019 03:55 A			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025200		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	323.5	1.5	5.0	333.3	0	97	31-135	0			
ORO (C21-C35)	305.5	1.7	5.0	333.3	0	91.7	31-135	0			
<i>Surr: 4-Terphenyl-d14</i>	2.005	0	0	3.333	0	60.2	25-137	0			

MS		Sample ID: 19101554-02B MS				Units: mg/Kg		Analysis Date: 10/26/2019 04:55 A			
Client ID: SB01-21-23		Run ID: SVMS8_191025A				SeqNo: 6025203		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	377.1	1.5	4.9	328.5	0	115	31-135	0			
ORO (C21-C35)	345.6	1.6	4.9	328.5	0	105	31-135	0			
<i>Surr: 4-Terphenyl-d14</i>	2.359	0	0	3.285	0	71.8	25-137	0			

MSD		Sample ID: 19101554-02B MSD				Units: mg/Kg		Analysis Date: 10/26/2019 05:15 A			
Client ID: SB01-21-23		Run ID: SVMS8_191025A				SeqNo: 6025204		Prep Date: 10/22/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	315	1.5	4.9	325.1	0	96.9	31-135	377.1	17.9	30	
ORO (C21-C35)	301.1	1.6	4.9	325.1	0	92.6	31-135	345.6	13.7	30	
<i>Surr: 4-Terphenyl-d14</i>	2.013	0	0	3.25	0	61.9	25-137	2.359	15.8	30	

The following samples were analyzed in this batch:

19101554-01B	19101554-02B	19101554-03B
19101554-04B	19101554-05B	19101554-06B
19101554-07B	19101554-08B	19101554-09B
19101554-10B	19101554-11B	19101554-12B
19101554-13B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144450** Instrument ID **SVMS8** Method: **SW8270**

MBLK		Sample ID: DBLKS1-144450-144450				Units: mg/Kg		Analysis Date: 10/26/2019 04:15 A			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025201		Prep Date: 10/23/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	U	1.5	5.0								
ORO (C21-C35)	U	1.7	5.0								
<i>Surr: 4-Terphenyl-d14</i>	2.438	0	0	3.333	0	73.1	25-137	0			

LCS		Sample ID: DLCSS1-144450-144450				Units: mg/Kg		Analysis Date: 10/26/2019 04:35 A			
Client ID:		Run ID: SVMS8_191025A				SeqNo: 6025202		Prep Date: 10/23/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	320.5	1.5	5.0	333.3	0	96.1	31-135	0			
ORO (C21-C35)	302.5	1.7	5.0	333.3	0	90.8	31-135	0			
<i>Surr: 4-Terphenyl-d14</i>	2.053	0	0	3.333	0	61.6	25-137	0			

MS		Sample ID: 19101554-14B MS				Units: mg/Kg		Analysis Date: 10/26/2019 07:35 A			
Client ID: SB06-11-13		Run ID: SVMS8_191025A				SeqNo: 6025209		Prep Date: 10/23/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	344	1.5	4.9	324.2	0	106	31-135	0			
ORO (C21-C35)	323.8	1.6	4.9	324.2	0	99.9	31-135	0			
<i>Surr: 4-Terphenyl-d14</i>	2.521	0	0	3.242	0	77.8	25-137	0			

MSD		Sample ID: 19101554-14B MSD				Units: mg/Kg		Analysis Date: 10/26/2019 07:55 A			
Client ID: SB06-11-13		Run ID: SVMS8_191025A				SeqNo: 6025210		Prep Date: 10/23/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C21)	312.6	1.5	4.9	329	0	95	31-135	344	9.57	30	
ORO (C21-C35)	348.2	1.7	4.9	329	0	106	31-135	323.8	7.26	30	
<i>Surr: 4-Terphenyl-d14</i>	2.479	0	0	3.29	0	75.3	25-137	2.521	1.68	30	

The following samples were analyzed in this batch:

19101554-14B	19101554-15B	19101554-17B
19101554-21B	19101554-22B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **144351** Instrument ID **VMS10** Method: **SW8260GRO**

MBLK		Sample ID: MBLK-144351-144351				Units: µg/Kg-dry		Analysis Date: 10/25/2019 05:45 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6015769		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	1200	5,000								
Surr: Toluene-d8	855.5	0	0	1000	0	85.6	70-130	0			

LCS		Sample ID: LCS-144351-144351				Units: µg/Kg-dry		Analysis Date: 10/25/2019 03:45 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6015768		Prep Date: 10/21/2019		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	24130	1200	5,000	25000	0	96.5	70-130	0			
Surr: Toluene-d8	957.5	0	0	1000	0	95.8	70-130	0			

The following samples were analyzed in this batch:

19101554-01A	19101554-02A	19101554-03A
19101554-04A	19101554-05A	19101554-06A
19101554-07A	19101554-08A	19101554-09A
19101554-10A	19101554-11A	19101554-12A
19101554-13A	19101554-14A	19101554-15A
19101554-17A	19101554-21A	19101554-22A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273829a** Instrument ID **VMS10** Method: **SW8260C**

MBLK		Sample ID: VBKWL1-191025-R273829a				Units: µg/L		Analysis Date: 10/25/2019 05:28 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6015543		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	U	0.9	1.0								
Surr: 1,2-Dichloroethane-d4	20.62	0	0	20	0	103	75-120	0			
Surr: 4-Bromofluorobenzene	20.08	0	0	20	0	100	80-110	0			
Surr: Dibromofluoromethane	19.6	0	0	20	0	98	85-115	0			
Surr: Toluene-d8	17.57	0	0	20	0	87.8	85-110	0			

LCS		Sample ID: VLCSW1-191025-R273829a				Units: µg/L		Analysis Date: 10/25/2019 02:00 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6013763		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	83.31	0.9	1.0	20	0	417	30-185	0			S
Surr: 1,2-Dichloroethane-d4	20.39	0	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	20.93	0	0	20	0	105	80-110	0			
Surr: Dibromofluoromethane	19.84	0	0	20	0	99.2	85-115	0			
Surr: Toluene-d8	17.69	0	0	20	0	88.4	85-110	0			

MS		Sample ID: 19101554-19A MS				Units: µg/L		Analysis Date: 10/25/2019 11:13 P			
Client ID: SB04-GWD		Run ID: VMS10_191025A				SeqNo: 6015549		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	93.41	0.9	1.0	20	0	467	30-185	0			S
Surr: 1,2-Dichloroethane-d4	20.34	0	0	20	0	102	75-120	0			
Surr: 4-Bromofluorobenzene	21.12	0	0	20	0	106	80-110	0			
Surr: Dibromofluoromethane	20	0	0	20	0	100	85-115	0			
Surr: Toluene-d8	17.69	0	0	20	0	88.4	85-110	0			

DUP		Sample ID: 19101554-18A DUP				Units: µg/L		Analysis Date: 10/25/2019 10:56 P			
Client ID: SB04-GW		Run ID: VMS10_191025A				SeqNo: 6015548		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	U	0.9	1.0	0	0	0		0	0	30	
Surr: 1,2-Dichloroethane-d4	20.98	0	0	20	0	105	75-120	20.49	2.36	30	
Surr: 4-Bromofluorobenzene	19.82	0	0	20	0	99.1	80-110	20.51	3.42	30	
Surr: Dibromofluoromethane	20	0	0	20	0	100	85-115	19.02	5.02	30	
Surr: Toluene-d8	17.63	0	0	20	0	88.2	85-110	17.95	1.8	30	

The following samples were analyzed in this batch:

19101554-16A	19101554-18A	19101554-19A
19101554-20A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273829b** Instrument ID **VMS10** Method: **SW8260GRO**

MBLK		Sample ID: VLKW1-191025-R273829b				Units: µg/L		Analysis Date: 10/25/2019 05:28 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6015761		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	25	100								
<i>Surr: Toluene-d8</i>	<i>16.98</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>84.9</i>	<i>70-120</i>	<i>0</i>			

LCS		Sample ID: VLCSW2-191025-R273829b				Units: µg/L		Analysis Date: 10/25/2019 03:25 P			
Client ID:		Run ID: VMS10_191025A				SeqNo: 6015760		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	436.2	25	100	500	0	87.2	70-130	0			
<i>Surr: Toluene-d8</i>	<i>18.98</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.9</i>	<i>70-130</i>	<i>0</i>			

The following samples were analyzed in this batch:

19101554-16A	19101554-18A	19101554-19A
19101554-20A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273846a** Instrument ID **VMS8** Method: **SW8260C**

MBLK		Sample ID: VLKW2-191025-R273846a				Units: µg/L		Analysis Date: 10/25/2019 06:18 P			
Client ID:		Run ID: VMS8_191025A				SeqNo: 6014440		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.46	1.0								
1,1,2,2-Tetrachloroethane	U	0.4	1.0								
1,1,2-Trichloroethane	U	0.46	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.52	1.0								
1,1-Dichloroethane	U	0.44	1.0								
1,1-Dichloroethene	U	0.4	1.0								
1,2,3-Trichlorobenzene	U	0.42	1.0								
1,2,4-Trichlorobenzene	U	0.45	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.32	1.0								
1,2-Dichloroethane	U	0.44	1.0								
1,2-Dichloropropane	U	0.48	1.0								
1,3-Dichlorobenzene	U	0.33	1.0								
1,4-Dichlorobenzene	U	0.35	1.0								
2-Butanone	U	0.52	5.0								
2-Hexanone	U	0.59	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	1.1	10								
Benzene	U	0.46	1.0								
Bromochloromethane	U	0.45	1.0								
Bromodichloromethane	U	0.49	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.9	1.0								
Carbon disulfide	U	0.49	1.0								
Carbon tetrachloride	U	0.4	1.0								
Chlorobenzene	U	0.4	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	0.83	0.83	1.0								J
cis-1,2-Dichloroethene	U	0.42	1.0								
cis-1,3-Dichloropropene	U	0.57	1.0								
Cyclohexane	U	0.63	2.0								
Dibromochloromethane	U	0.4	1.0								
Dichlorodifluoromethane	U	0.68	1.0								
Ethylbenzene	U	0.34	1.0								
Isopropylbenzene	U	0.35	1.0								
m,p-Xylene	U	0.81	2.0								
Methyl acetate	U	0.59	2.0								
Methyl tert-butyl ether	U	0.45	1.0								
Methylcyclohexane	U	0.35	1.0								
Methylene chloride	U	0.86	5.0								
o-Xylene	U	0.31	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273846a		Instrument ID VMS8		Method: SW8260C	
Styrene	U	0.33	1.0		
Tetrachloroethene	U	0.39	1.0		
Toluene	U	0.45	1.0		
trans-1,2-Dichloroethene	U	0.48	1.0		
trans-1,3-Dichloropropene	U	0.38	1.0		
Trichloroethene	U	0.43	1.0		
Trichlorofluoromethane	U	0.52	1.0		
Vinyl chloride	U	0.53	1.0		
Surr: 1,2-Dichloroethane-d4	19.17	0	0	20	0
Surr: 4-Bromofluorobenzene	21.92	0	0	20	0
Surr: Dibromofluoromethane	22.1	0	0	20	0
Surr: Toluene-d8	19.29	0	0	20	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273846a** Instrument ID **VMS8** Method: **SW8260C**

LCS		Sample ID: VLCSW1-191025-R273846a				Units: µg/L		Analysis Date: 10/25/2019 05:43 P			
Client ID:		Run ID: VMS8_191025A				SeqNo: 6014356		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.16	0.46	1.0	20	0	95.8	75-130	0			
1,1,2,2-Tetrachloroethane	21.16	0.4	1.0	20	0	106	75-130	0			
1,1,2-Trichloroethane	17.73	0.46	1.0	20	0	88.6	75-125	0			
1,1-Dichloroethane	20.86	0.44	1.0	20	0	104	68-142	0			
1,1-Dichloroethene	22.27	0.4	1.0	20	0	111	70-145	0			
1,2,3-Trichlorobenzene	20.52	0.42	1.0	20	0	103	70-140	0			
1,2,4-Trichlorobenzene	19.15	0.45	1.0	20	0	95.8	70-135	0			
1,2-Dibromo-3-chloropropane	17.76	0.43	1.0	20	0	88.8	60-130	0			
1,2-Dibromoethane	18.89	0.41	1.0	20	0	94.4	67-155	0			
1,2-Dichlorobenzene	20.25	0.32	1.0	20	0	101	70-130	0			
1,2-Dichloroethane	19.94	0.44	1.0	20	0	99.7	78-125	0			
1,2-Dichloropropane	18.39	0.48	1.0	20	0	92	75-125	0			
1,3-Dichlorobenzene	20.06	0.33	1.0	20	0	100	75-130	0			
1,4-Dichlorobenzene	19.53	0.35	1.0	20	0	97.6	75-130	0			
2-Butanone	17.73	0.52	5.0	20	0	88.6	55-150	0			
2-Hexanone	17.19	0.59	5.0	20	0	86	60-135	0			
4-Methyl-2-pentanone	24.5	0.52	1.0	20	0	122	77-178	0			
Acetone	19.39	1.1	10	20	0	97	60-160	0			
Benzene	17.76	0.46	1.0	20	0	88.8	70-130	0			
Bromochloromethane	20.21	0.45	1.0	20	0	101	72-141	0			
Bromodichloromethane	20.82	0.49	1.0	20	0	104	75-125	0			
Bromoform	19.71	0.56	1.0	20	0	98.6	60-125	0			
Bromomethane	20.32	0.9	1.0	20	0	102	30-185	0			
Carbon disulfide	22.26	0.49	1.0	20	0	111	60-165	0			
Carbon tetrachloride	15.71	0.4	1.0	20	0	78.6	65-140	0			
Chlorobenzene	18.89	0.4	1.0	20	0	94.4	80-120	0			
Chloroethane	21.51	0.68	1.0	20	0	108	31-172	0			
Chloroform	18.71	0.46	1.0	20	0	93.6	66-135	0			
Chloromethane	24.03	0.83	1.0	20	0	120	46-148	0			
cis-1,2-Dichloroethene	20.41	0.42	1.0	20	0	102	75-134	0			
cis-1,3-Dichloropropene	20.05	0.57	1.0	20	0	100	70-130	0			
Dibromochloromethane	17.88	0.4	1.0	20	0	89.4	60-115	0			
Dichlorodifluoromethane	27.35	0.68	1.0	20	0	137	20-120	0			S
Ethylbenzene	20.26	0.34	1.0	20	0	101	76-123	0			
Isopropylbenzene	20.32	0.35	1.0	20	0	102	80-127	0			
m,p-Xylene	41.42	0.81	2.0	40	0	104	75-130	0			
Methyl tert-butyl ether	18.64	0.45	1.0	20	0	93.2	68-129	0			
Methylene chloride	17.82	0.86	5.0	20	0	89.1	72-125	0			
o-Xylene	20.81	0.31	1.0	20	0	104	76-127	0			
Styrene	20.89	0.33	1.0	20	0	104	83-137	0			
Tetrachloroethene	18.02	0.39	1.0	20	0	90.1	68-166	0			
Toluene	18.4	0.45	1.0	20	0	92	76-125	0			
trans-1,2-Dichloroethene	21.12	0.48	1.0	20	0	106	80-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273846a	Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	19.28	0.38	1.0	20	0	96.4	56-132	0
Trichloroethene	18.52	0.43	1.0	20	0	92.6	77-125	0
Trichlorofluoromethane	17.15	0.52	1.0	20	0	85.8	60-140	0
Vinyl chloride	17.89	0.53	1.0	20	0	89.4	50-136	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.98</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>105</i>	<i>75-120</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>21.17</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>106</i>	<i>80-110</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>20.12</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>18.98</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.9</i>	<i>85-110</i>	<i>0</i>

The following samples were analyzed in this batch:

19101554- 25A	19101554- 26A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273901** Instrument ID **VMS8** Method: **SW8260C**

MBLK		Sample ID: VLKS1-191027-R273901				Units: µg/Kg		Analysis Date: 10/27/2019 06:08 P			
Client ID:		Run ID: VMS8_191027A				SeqNo: 6015312		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.79	5.0								
1,1,2,2-Tetrachloroethane	U	0.64	5.0								
1,1,2-Trichloroethane	U	0.67	5.0								
1,1,2-Trichlorotrifluoroethane	U	1.1	5.0								
1,1-Dichloroethane	U	0.62	5.0								
1,1-Dichloroethene	U	0.98	5.0								
1,2,3-Trichlorobenzene	U	1.8	5.0								
1,2,4-Trichlorobenzene	U	1.1	5.0								
1,2-Dibromo-3-chloropropane	U	0.99	5.0								
1,2-Dibromoethane	U	0.36	5.0								
1,2-Dichlorobenzene	U	0.7	5.0								
1,2-Dichloroethane	U	0.56	5.0								
1,2-Dichloropropane	U	0.44	5.0								
1,3-Dichlorobenzene	U	0.61	5.0								
1,4-Dichlorobenzene	U	0.64	5.0								
2-Butanone	U	5.1	10								
2-Hexanone	U	1.8	5.0								
4-Methyl-2-pentanone	U	1.8	5.0								
Acetone	U	4.6	10								
Benzene	U	0.52	5.0								
Bromochloromethane	U	0.54	5.0								
Bromodichloromethane	U	0.6	5.0								
Bromoform	U	0.5	5.0								
Bromomethane	U	2.5	10								
Carbon disulfide	U	0.59	5.0								
Carbon tetrachloride	U	1	5.0								
Chlorobenzene	U	0.63	5.0								
Chloroethane	U	1.9	5.0								
Chloroform	U	0.82	5.0								
Chloromethane	U	1	10								
cis-1,2-Dichloroethene	U	0.54	5.0								
cis-1,3-Dichloropropene	U	0.6	5.0								
Cyclohexane	U	1.7	10								
Dibromochloromethane	U	0.51	5.0								
Dichlorodifluoromethane	U	2.5	10								
Ethylbenzene	U	0.87	5.0								
Isopropylbenzene	U	0.85	5.0								
m,p-Xylene	U	2.2	2.5								
Methyl acetate	U	1.2	10								
Methyl tert-butyl ether	U	0.61	5.0								
Methylcyclohexane	U	1.5	10								
Methylene chloride	U	6.2	10								
o-Xylene	U	1.2	2.5								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273901		Instrument ID VMS8		Method: SW8260C					
Styrene	U	0.75	5.0						
Tetrachloroethene	U	0.89	5.0						
Toluene	U	0.86	5.0						
trans-1,2-Dichloroethene	U	0.5	5.0						
trans-1,3-Dichloropropene	U	0.48	5.0						
Trichloroethene	U	0.72	5.0						
Trichlorofluoromethane	U	0.71	5.0						
Vinyl chloride	U	0.7	5.0						
<i>Surr: 1,2-Dichloroethane-d4</i>	21.25	0	0	20	0	106	83-132	0	
<i>Surr: 4-Bromofluorobenzene</i>	20.1	0	0	20	0	100	83-111	0	
<i>Surr: Dibromofluoromethane</i>	19.9	0	0	20	0	99.5	77-125	0	
<i>Surr: Toluene-d8</i>	20.37	0	0	20	0	102	86-108	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273901** Instrument ID **VMS8** Method: **SW8260C**

LCS		Sample ID: VLCSS2-191027-R273901				Units: µg/Kg		Analysis Date: 10/27/2019 05:34 P			
Client ID:		Run ID: VMS8_191027A				SeqNo: 6015311		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23.82	0.79	5.0	20	0	119	73-138	0			
1,1,2,2-Tetrachloroethane	20.99	0.64	5.0	20	0	105	71-126	0			
1,1,2-Trichloroethane	19.88	0.67	5.0	20	0	99.4	77-123	0			
1,1-Dichloroethane	20.12	0.62	5.0	20	0	101	63-148	0			
1,1-Dichloroethene	24.81	0.98	5.0	20	0	124	67-156	0			
1,2,3-Trichlorobenzene	25.07	1.8	5.0	20	0	125	73-129	0			
1,2,4-Trichlorobenzene	25.86	1.1	5.0	20	0	129	70-132	0			
1,2-Dibromo-3-chloropropane	22.67	0.99	5.0	20	0	113	48-127	0			
1,2-Dibromoethane	20.77	0.36	5.0	20	0	104	71-144	0			
1,2-Dichlorobenzene	21.07	0.7	5.0	20	0	105	77-127	0			
1,2-Dichloroethane	20.62	0.56	5.0	20	0	103	77-127	0			
1,2-Dichloropropane	21.33	0.44	5.0	20	0	107	74-130	0			
1,3-Dichlorobenzene	21.14	0.61	5.0	20	0	106	75-133	0			
1,4-Dichlorobenzene	20.82	0.64	5.0	20	0	104	74-130	0			
2-Butanone	15.58	5.1	10	20	0	77.9	55-132	0			
2-Hexanone	18.6	1.8	5.0	20	0	93	55-124	0			
4-Methyl-2-pentanone	21.52	1.8	5.0	20	0	108	67-159	0			
Acetone	16.66	4.6	10	20	0	83.3	31-156	0			
Benzene	21.5	0.52	5.0	20	0	108	77-133	0			
Bromochloromethane	19.45	0.54	5.0	20	0	97.2	72-139	0			
Bromodichloromethane	21.65	0.6	5.0	20	0	108	69-133	0			
Bromoform	17.33	0.5	5.0	20	0	86.6	55-126	0			
Bromomethane	21.79	2.5	10	20	0	109	31-174	0			
Carbon disulfide	22.49	0.59	5.0	20	0	112	45-160	0			
Carbon tetrachloride	20.86	1	5.0	20	0	104	69-140	0			
Chlorobenzene	21.21	0.63	5.0	20	0	106	76-130	0			
Chloroethane	17.92	1.9	5.0	20	0	89.6	53-150	0			
Chloroform	20.78	0.82	5.0	20	0	104	72-132	0			
Chloromethane	21.64	1	10	20	0	108	43-150	0			
cis-1,2-Dichloroethene	21.55	0.54	5.0	20	0	108	74-134	0			
cis-1,3-Dichloropropene	21.8	0.6	5.0	20	0	109	62-134	0			
Dibromochloromethane	19.68	0.51	5.0	20	0	98.4	57-118	0			
Dichlorodifluoromethane	29.61	2.5	10	20	0	148	43-126	0			S
Ethylbenzene	20.57	0.87	5.0	20	0	103	75-133	0			
Isopropylbenzene	22.14	0.85	5.0	20	0	111	74-137	0			
m,p-Xylene	42.45	2.2	2.5	40	0	106	75-134	0			
Methyl tert-butyl ether	18.03	0.61	5.0	20	0	90.2	62-136	0			
Methylene chloride	21.75	6.2	10	20	0	109	55-157	0			
o-Xylene	20.89	1.2	2.5	20	0	104	76-130	0			
Styrene	22.27	0.75	5.0	20	0	111	72-138	0			
Tetrachloroethene	23.14	0.89	5.0	20	0	116	70-171	0			
Toluene	22.04	0.86	5.0	20	0	110	76-130	0			
trans-1,2-Dichloroethene	23.23	0.5	5.0	20	0	116	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273901	Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	21.04	0.48	5.0	20	0	105	58-126	0
Trichloroethene	22.14	0.72	5.0	20	0	111	75-135	0
Trichlorofluoromethane	17.85	0.71	5.0	20	0	89.2	62-136	0
Vinyl chloride	20.44	0.7	5.0	20	0	102	57-143	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>18.98</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.9</i>	<i>83-132</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.03</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>83-111</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>20.42</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>77-125</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>19.62</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.1</i>	<i>86-108</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273901** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: 19101478-04A MS					Units: µg/Kg			Analysis Date: 10/28/2019 01:25 A			
Client ID:		Run ID: VMS8_191027A			SeqNo: 6015332		Prep Date:		DF: 0.98		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24.23	0.77	4.9	19.6	0	124	73-138	0			
1,1,2,2-Tetrachloroethane	17.92	0.63	4.9	19.6	0	91.4	71-126	0			
1,1,2-Trichloroethane	17.55	0.66	4.9	19.6	0	89.6	77-123	0			
1,1-Dichloroethane	20.99	0.61	4.9	19.6	0	107	63-148	0			
1,1-Dichloroethene	25.04	0.96	4.9	19.6	0	128	67-156	0			
1,2,3-Trichlorobenzene	16	1.8	4.9	19.6	0	81.6	73-129	0			
1,2,4-Trichlorobenzene	16.59	1.1	4.9	19.6	0	84.6	70-132	0			
1,2-Dibromo-3-chloropropane	16.31	0.97	4.9	19.6	0	83.2	48-127	0			
1,2-Dibromoethane	17.92	0.35	4.9	19.6	0	91.4	71-144	0			
1,2-Dichlorobenzene	16.07	0.69	4.9	19.6	0	82	77-127	0			
1,2-Dichloroethane	19.47	0.55	4.9	19.6	0	99.4	77-127	0			
1,2-Dichloropropane	20.94	0.43	4.9	19.6	0	107	74-130	0			
1,3-Dichlorobenzene	15	0.6	4.9	19.6	0	76.6	75-133	0			
1,4-Dichlorobenzene	15.44	0.63	4.9	19.6	0	78.8	74-130	0			
2-Butanone	18.77	5	9.8	19.6	0	95.8	55-132	0			
2-Hexanone	16.67	1.8	4.9	19.6	0	85	55-124	0			
4-Methyl-2-pentanone	20.64	1.8	4.9	19.6	0	105	67-159	0			
Acetone	38.78	4.5	9.8	19.6	3.905	178	31-156	0			S
Benzene	20.22	0.51	4.9	19.6	0	103	77-133	0			
Bromochloromethane	20.72	0.53	4.9	19.6	0	106	72-139	0			
Bromodichloromethane	20.39	0.59	4.9	19.6	0	104	69-133	0			
Bromoform	14.39	0.49	4.9	19.6	0	73.4	55-126	0			
Bromomethane	23.32	2.4	9.8	19.6	0	119	31-174	0			
Carbon disulfide	21.72	0.58	4.9	19.6	0	111	45-160	0			
Carbon tetrachloride	18.31	0.98	4.9	19.6	0	93.4	69-140	0			
Chlorobenzene	17.98	0.62	4.9	19.6	0	91.8	76-130	0			
Chloroethane	19.6	1.9	4.9	19.6	0	100	53-150	0			
Chloroform	20.79	0.8	4.9	19.6	0	106	72-132	0			
Chloromethane	18.76	0.98	9.8	19.6	0	95.7	43-150	0			
cis-1,2-Dichloroethene	20.65	0.53	4.9	19.6	0	105	74-134	0			
cis-1,3-Dichloropropene	19.43	0.59	4.9	19.6	0	99.2	62-134	0			
Dibromochloromethane	16.27	0.5	4.9	19.6	0	83	57-118	0			
Dichlorodifluoromethane	31.51	2.4	9.8	19.6	0	161	43-126	0			S
Ethylbenzene	17.91	0.85	4.9	19.6	0	91.4	75-133	0			
Isopropylbenzene	18.97	0.83	4.9	19.6	0	96.8	74-137	0			
m,p-Xylene	36.32	2.2	2.4	39.2	0	92.6	75-134	0			
Methyl tert-butyl ether	17.98	0.6	4.9	19.6	0	91.8	62-136	0			
Methylene chloride	24.17	6.1	9.8	19.6	0	123	55-157	0			
o-Xylene	18.54	1.2	2.4	19.6	0	94.6	76-130	0			
Styrene	20.82	0.74	4.9	19.6	0	106	72-138	0			
Tetrachloroethene	21.3	0.87	4.9	19.6	0	109	70-171	0			
Toluene	20.89	0.84	4.9	19.6	0	107	76-130	0			
trans-1,2-Dichloroethene	22.56	0.49	4.9	19.6	0	115	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273901		Instrument ID VMS8		Method: SW8260C				
trans-1,3-Dichloropropene	17.1	0.47	4.9	19.6	0	87.2	58-126	0
Trichloroethene	19.84	0.71	4.9	19.6	0	101	75-135	0
Trichlorofluoromethane	15.57	0.7	4.9	19.6	0	79.4	62-136	0
Vinyl chloride	19.64	0.69	4.9	19.6	0	100	57-143	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.76</i>	<i>0</i>	<i>0</i>	<i>19.6</i>	<i>0</i>	<i>106</i>	<i>83-132</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>21.06</i>	<i>0</i>	<i>0</i>	<i>19.6</i>	<i>0</i>	<i>107</i>	<i>83-111</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.46</i>	<i>0</i>	<i>0</i>	<i>19.6</i>	<i>0</i>	<i>99.3</i>	<i>77-125</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>18.5</i>	<i>0</i>	<i>0</i>	<i>19.6</i>	<i>0</i>	<i>94.4</i>	<i>86-108</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273901** Instrument ID **VMS8** Method: **SW8260C**

MSD					Sample ID: 19101478-04A MSD			Units: µg/Kg		Analysis Date: 10/28/2019 01:42 A		
Client ID:					Run ID: VMS8_191027A			SeqNo: 6015333		Prep Date:		DF: 0.971
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	22.74	0.77	4.9	19.42	0	117	73-138	24.23	6.32	30		
1,1,2,2-Tetrachloroethane	17.48	0.62	4.9	19.42	0	90	71-126	17.92	2.52	30		
1,1,2-Trichloroethane	16.27	0.65	4.9	19.42	0	83.8	77-123	17.55	7.56	30		
1,1-Dichloroethane	22.53	0.6	4.9	19.42	0	116	63-148	20.99	7.06	30		
1,1-Dichloroethene	28.13	0.95	4.9	19.42	0	145	67-156	25.04	11.6	30		
1,2,3-Trichlorobenzene	16.39	1.7	4.9	19.42	0	84.4	73-129	16	2.39	30		
1,2,4-Trichlorobenzene	18.34	1.1	4.9	19.42	0	94.4	70-132	16.59	10	30		
1,2-Dibromo-3-chloropropane	17.69	0.96	4.9	19.42	0	91.1	48-127	16.31	8.14	30		
1,2-Dibromoethane	18.61	0.35	4.9	19.42	0	95.8	71-144	17.92	3.78	30		
1,2-Dichlorobenzene	16.07	0.68	4.9	19.42	0	82.8	77-127	16.07	0.0121	30		
1,2-Dichloroethane	18.87	0.54	4.9	19.42	0	97.2	77-127	19.47	3.16	30		
1,2-Dichloropropane	20.46	0.43	4.9	19.42	0	105	74-130	20.94	2.34	30		
1,3-Dichlorobenzene	16.33	0.59	4.9	19.42	0	84.1	75-133	15	8.48	30		
1,4-Dichlorobenzene	15.9	0.62	4.9	19.42	0	81.9	74-130	15.44	3	30		
2-Butanone	17.36	5	9.7	19.42	0	89.4	55-132	18.77	7.78	30		
2-Hexanone	13.54	1.7	4.9	19.42	0	69.7	55-124	16.67	20.8	30		
4-Methyl-2-pentanone	17.86	1.7	4.9	19.42	0	92	67-159	20.64	14.5	30		
Acetone	41.5	4.5	9.7	19.42	3.905	194	31-156	38.78	6.78	30	S	
Benzene	19.98	0.5	4.9	19.42	0	103	77-133	20.22	1.17	30		
Bromochloromethane	22.31	0.52	4.9	19.42	0	115	72-139	20.72	7.42	30		
Bromodichloromethane	20.36	0.58	4.9	19.42	0	105	69-133	20.39	0.157	30		
Bromoform	14.9	0.49	4.9	19.42	0	76.7	55-126	14.39	3.47	30		
Bromomethane	27.34	2.4	9.7	19.42	0	141	31-174	23.32	15.9	30		
Carbon disulfide	25.1	0.57	4.9	19.42	0	129	45-160	21.72	14.5	30		
Carbon tetrachloride	18.07	0.97	4.9	19.42	0	93	69-140	18.31	1.3	30		
Chlorobenzene	18.52	0.61	4.9	19.42	0	95.4	76-130	17.98	2.93	30		
Chloroethane	21.12	1.8	4.9	19.42	0	109	53-150	19.6	7.46	30		
Chloroform	24.62	0.8	4.9	19.42	0	127	72-132	20.79	16.9	30		
Chloromethane	20.52	0.97	9.7	19.42	0	106	43-150	18.76	8.96	30		
cis-1,2-Dichloroethene	22.75	0.52	4.9	19.42	0	117	74-134	20.65	9.69	30		
cis-1,3-Dichloropropene	18.7	0.58	4.9	19.42	0	96.3	62-134	19.43	3.84	30		
Dibromochloromethane	16.05	0.5	4.9	19.42	0	82.6	57-118	16.27	1.35	30		
Dichlorodifluoromethane	35.26	2.4	9.7	19.42	0	182	43-126	31.51	11.2	30	S	
Ethylbenzene	18.5	0.84	4.9	19.42	0	95.2	75-133	17.91	3.2	30		
Isopropylbenzene	20.17	0.83	4.9	19.42	0	104	74-137	18.97	6.11	30		
m,p-Xylene	37.49	2.1	2.4	38.84	0	96.5	75-134	36.32	3.17	30		
Methyl tert-butyl ether	19.87	0.59	4.9	19.42	0	102	62-136	17.98	9.95	30		
Methylene chloride	25.13	6	9.7	19.42	0	129	55-157	24.17	3.91	30		
o-Xylene	18.92	1.2	2.4	19.42	0	97.4	76-130	18.54	1.99	30		
Styrene	21.21	0.73	4.9	19.42	0	109	72-138	20.82	1.82	30		
Tetrachloroethene	22.26	0.86	4.9	19.42	0	115	70-171	21.3	4.41	30		
Toluene	21.59	0.84	4.9	19.42	0	111	76-130	20.89	3.26	30		
trans-1,2-Dichloroethene	25.64	0.49	4.9	19.42	0	132	65-137	22.56	12.8	30		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273901	Instrument ID VMS8		Method: SW8260C							
trans-1,3-Dichloropropene	16.7	0.47	4.9	19.42	0	86	58-126	17.1	2.37	30
Trichloroethene	20.64	0.7	4.9	19.42	0	106	75-135	19.84	3.94	30
Trichlorofluoromethane	20.09	0.69	4.9	19.42	0	103	62-136	15.57	25.3	30
Vinyl chloride	23.34	0.68	4.9	19.42	0	120	57-143	19.64	17.2	30
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>18.19</i>	<i>0</i>	<i>0</i>	<i>19.42</i>	<i>0</i>	<i>93.6</i>	<i>83-132</i>	<i>20.76</i>	<i>13.2</i>	<i>30</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.37</i>	<i>0</i>	<i>0</i>	<i>19.42</i>	<i>0</i>	<i>105</i>	<i>83-111</i>	<i>21.06</i>	<i>3.32</i>	<i>30</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.96</i>	<i>0</i>	<i>0</i>	<i>19.42</i>	<i>0</i>	<i>103</i>	<i>77-125</i>	<i>19.46</i>	<i>2.54</i>	<i>30</i>
<i>Surr: Toluene-d8</i>	<i>17.72</i>	<i>0</i>	<i>0</i>	<i>19.42</i>	<i>0</i>	<i>91.2</i>	<i>86-108</i>	<i>18.5</i>	<i>4.32</i>	<i>30</i>

The following samples were analyzed in this batch:

19101554-02A	19101554-04A	19101554-06A
19101554-07A	19101554-08A	19101554-09A
19101554-10A	19101554-11A	19101554-12A
19101554-13A	19101554-14A	19101554-15A
19101554-17A	19101554-21A	19101554-22A
19101554-23A	19101554-24A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273917** Instrument ID **VMS8** Method: **SW8260C**

MBLK		Sample ID: VBLSK1-191027-R273917				Units: µg/Kg		Analysis Date: 10/28/2019 04:24 A			
Client ID:		Run ID: VMS8_191027B				SeqNo: 6015699		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.79	5.0								
1,1,2,2-Tetrachloroethane	U	0.64	5.0								
1,1,2-Trichloroethane	U	0.67	5.0								
1,1,2-Trichlorotrifluoroethane	U	1.1	5.0								
1,1-Dichloroethane	U	0.62	5.0								
1,1-Dichloroethene	U	0.98	5.0								
1,2,3-Trichlorobenzene	U	1.8	5.0								
1,2,4-Trichlorobenzene	U	1.1	5.0								
1,2-Dibromo-3-chloropropane	U	0.99	5.0								
1,2-Dibromoethane	U	0.36	5.0								
1,2-Dichlorobenzene	U	0.7	5.0								
1,2-Dichloroethane	U	0.56	5.0								
1,2-Dichloropropane	U	0.44	5.0								
1,3-Dichlorobenzene	U	0.61	5.0								
1,4-Dichlorobenzene	U	0.64	5.0								
2-Butanone	U	5.1	10								
2-Hexanone	U	1.8	5.0								
4-Methyl-2-pentanone	U	1.8	5.0								
Acetone	U	4.6	10								
Benzene	U	0.52	5.0								
Bromochloromethane	U	0.54	5.0								
Bromodichloromethane	U	0.6	5.0								
Bromoform	U	0.5	5.0								
Bromomethane	U	2.5	10								
Carbon disulfide	U	0.59	5.0								
Carbon tetrachloride	U	1	5.0								
Chlorobenzene	U	0.63	5.0								
Chloroethane	U	1.9	5.0								
Chloroform	U	0.82	5.0								
Chloromethane	U	1	10								
cis-1,2-Dichloroethene	U	0.54	5.0								
cis-1,3-Dichloropropene	U	0.6	5.0								
Cyclohexane	U	1.7	10								
Dibromochloromethane	U	0.51	5.0								
Dichlorodifluoromethane	U	2.5	10								
Ethylbenzene	U	0.87	5.0								
Isopropylbenzene	U	0.85	5.0								
m,p-Xylene	U	2.2	2.5								
Methyl acetate	U	1.2	10								
Methyl tert-butyl ether	U	0.61	5.0								
Methylcyclohexane	U	1.5	10								
Methylene chloride	U	6.2	10								
o-Xylene	U	1.2	2.5								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273917		Instrument ID VMS8		Method: SW8260C	
Styrene	U	0.75	5.0		
Tetrachloroethene	U	0.89	5.0		
Toluene	U	0.86	5.0		
trans-1,2-Dichloroethene	U	0.5	5.0		
trans-1,3-Dichloropropene	U	0.48	5.0		
Trichloroethene	U	0.72	5.0		
Trichlorofluoromethane	U	0.71	5.0		
Vinyl chloride	U	0.7	5.0		
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.2</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.35</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>19</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>17.34</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273917** Instrument ID **VMS8** Method: **SW8260C**

LCS		Sample ID: VLCS2-191027-R273917				Units: µg/Kg		Analysis Date: 10/28/2019 03:50 A			
Client ID:		Run ID: VMS8_191027B				SeqNo: 6015698		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.67	0.79	5.0	20	0	103	73-138	0			
1,1,2,2-Tetrachloroethane	19.06	0.64	5.0	20	0	95.3	71-126	0			
1,1,2-Trichloroethane	18.03	0.67	5.0	20	0	90.2	77-123	0			
1,1-Dichloroethane	21.91	0.62	5.0	20	0	110	63-148	0			
1,1-Dichloroethene	24.09	0.98	5.0	20	0	120	67-156	0			
1,2,3-Trichlorobenzene	20.39	1.8	5.0	20	0	102	73-129	0			
1,2,4-Trichlorobenzene	20.57	1.1	5.0	20	0	103	70-132	0			
1,2-Dibromo-3-chloropropane	19.56	0.99	5.0	20	0	97.8	48-127	0			
1,2-Dibromoethane	19.51	0.36	5.0	20	0	97.6	71-144	0			
1,2-Dichlorobenzene	18.16	0.7	5.0	20	0	90.8	77-127	0			
1,2-Dichloroethane	19.5	0.56	5.0	20	0	97.5	77-127	0			
1,2-Dichloropropane	21.39	0.44	5.0	20	0	107	74-130	0			
1,3-Dichlorobenzene	16.28	0.61	5.0	20	0	81.4	75-133	0			
1,4-Dichlorobenzene	17.37	0.64	5.0	20	0	86.8	74-130	0			
2-Butanone	16.71	5.1	10	20	0	83.6	55-132	0			
2-Hexanone	15.2	1.8	5.0	20	0	76	55-124	0			
4-Methyl-2-pentanone	18.89	1.8	5.0	20	0	94.4	67-159	0			
Acetone	20.88	4.6	10	20	0	104	31-156	0			
Benzene	19.6	0.52	5.0	20	0	98	77-133	0			
Bromochloromethane	22.86	0.54	5.0	20	0	114	72-139	0			
Bromodichloromethane	21.74	0.6	5.0	20	0	109	69-133	0			
Bromoform	16.44	0.5	5.0	20	0	82.2	55-126	0			
Bromomethane	24.26	2.5	10	20	0	121	31-174	0			
Carbon disulfide	22.1	0.59	5.0	20	0	110	45-160	0			
Carbon tetrachloride	17.34	1	5.0	20	0	86.7	69-140	0			
Chlorobenzene	18.05	0.63	5.0	20	0	90.2	76-130	0			
Chloroethane	18.1	1.9	5.0	20	0	90.5	53-150	0			
Chloroform	23.15	0.82	5.0	20	0	116	72-132	0			
Chloromethane	21.12	1	10	20	0	106	43-150	0			
cis-1,2-Dichloroethene	22.03	0.54	5.0	20	0	110	74-134	0			
cis-1,3-Dichloropropene	21.02	0.6	5.0	20	0	105	62-134	0			
Dibromochloromethane	18.47	0.51	5.0	20	0	92.4	57-118	0			
Dichlorodifluoromethane	27.8	2.5	10	20	0	139	43-126	0			S
Ethylbenzene	16.84	0.87	5.0	20	0	84.2	75-133	0			
Isopropylbenzene	17.96	0.85	5.0	20	0	89.8	74-137	0			
m,p-Xylene	34.31	2.2	2.5	40	0	85.8	75-134	0			
Methyl tert-butyl ether	21.52	0.61	5.0	20	0	108	62-136	0			
Methylene chloride	25.38	6.2	10	20	0	127	55-157	0			
o-Xylene	17.51	1.2	2.5	20	0	87.6	76-130	0			
Styrene	17.55	0.75	5.0	20	0	87.8	72-138	0			
Tetrachloroethene	18.3	0.89	5.0	20	0	91.5	70-171	0			
Toluene	18.08	0.86	5.0	20	0	90.4	76-130	0			
trans-1,2-Dichloroethene	23.29	0.5	5.0	20	0	116	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273917	Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	18.2	0.48	5.0	20	0	91	58-126	0
Trichloroethene	19.78	0.72	5.0	20	0	98.9	75-135	0
Trichlorofluoromethane	17.1	0.71	5.0	20	0	85.5	62-136	0
Vinyl chloride	18.86	0.7	5.0	20	0	94.3	57-143	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.25</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>83-132</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>21.71</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>109</i>	<i>83-111</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.54</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.7</i>	<i>77-125</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>18.87</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.4</i>	<i>86-108</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273917** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: 19101478-04A MS					Units: µg/Kg			Analysis Date: 10/28/2019 10:52 A			
Client ID:		Run ID: VMS8_191027B			SeqNo: 6015936		Prep Date:		DF: 0.994		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	25.38	0.79	5.0	19.88	0	128	73-138	0			
1,1,2,2-Tetrachloroethane	14.33	0.64	5.0	19.88	0	72.1	71-126	0			
1,1,2-Trichloroethane	15.29	0.67	5.0	19.88	0	76.9	77-123	0			S
1,1-Dichloroethane	24.23	0.62	5.0	19.88	0	122	63-148	0			
1,1-Dichloroethene	30.51	0.97	5.0	19.88	0	153	67-156	0			
1,2,3-Trichlorobenzene	4.185	1.8	5.0	19.88	0	21	73-129	0			JS
1,2,4-Trichlorobenzene	3.777	1.1	5.0	19.88	0	19	70-132	0			JS
1,2-Dibromo-3-chloropropane	12.79	0.98	5.0	19.88	0	64.4	48-127	0			
1,2-Dibromoethane	15.33	0.36	5.0	19.88	0	77.1	71-144	0			
1,2-Dichlorobenzene	7.604	0.7	5.0	19.88	0	38.2	77-127	0			S
1,2-Dichloroethane	19.99	0.56	5.0	19.88	0	101	77-127	0			
1,2-Dichloropropane	21.22	0.44	5.0	19.88	0	107	74-130	0			
1,3-Dichlorobenzene	6.799	0.61	5.0	19.88	0	34.2	75-133	0			S
1,4-Dichlorobenzene	6.481	0.64	5.0	19.88	0	32.6	74-130	0			S
2-Butanone	16.74	5.1	9.9	19.88	0	84.2	55-132	0			
2-Hexanone	12.4	1.8	5.0	19.88	0	62.4	55-124	0			
4-Methyl-2-pentanone	15.2	1.8	5.0	19.88	0	76.4	67-159	0			
Acetone	63.2	4.6	9.9	19.88	10.06	267	31-156	0			S
Benzene	20.48	0.52	5.0	19.88	0	103	77-133	0			
Bromochloromethane	21.76	0.54	5.0	19.88	0	109	72-139	0			
Bromodichloromethane	20.75	0.6	5.0	19.88	0	104	69-133	0			
Bromoform	12.73	0.5	5.0	19.88	0	64	55-126	0			
Bromomethane	30.66	2.5	9.9	19.88	0	154	31-174	0			
Carbon disulfide	27.11	0.59	5.0	19.88	0	136	45-160	0			
Carbon tetrachloride	20.48	0.99	5.0	19.88	0	103	69-140	0			
Chlorobenzene	12.92	0.63	5.0	19.88	0	65	76-130	0			S
Chloroethane	23.6	1.9	5.0	19.88	0	119	53-150	0			
Chloroform	24.66	0.82	5.0	19.88	0	124	72-132	0			
Chloromethane	22.58	0.99	9.9	19.88	0	114	43-150	0			
cis-1,2-Dichloroethene	24.34	0.54	5.0	19.88	0	122	74-134	0			
cis-1,3-Dichloropropene	19.98	0.6	5.0	19.88	0	100	62-134	0			
Dibromochloromethane	13.82	0.51	5.0	19.88	0	69.5	57-118	0			
Dichlorodifluoromethane	41.75	2.5	9.9	19.88	0	210	43-126	0			S
Ethylbenzene	12.95	0.86	5.0	19.88	0	65.2	75-133	0			S
Isopropylbenzene	12.52	0.84	5.0	19.88	0	63	74-137	0			S
m,p-Xylene	25.25	2.2	2.5	39.76	0	63.5	75-134	0			S
Methyl tert-butyl ether	21.69	0.61	5.0	19.88	0	109	62-136	0			
Methylene chloride	29.84	6.2	9.9	19.88	0	150	55-157	0			
o-Xylene	12.69	1.2	2.5	19.88	0	63.8	76-130	0			S
Styrene	13.33	0.75	5.0	19.88	0	67	72-138	0			S
Tetrachloroethene	18.16	0.88	5.0	19.88	0	91.4	70-171	0			
Toluene	18.22	0.85	5.0	19.88	0	91.6	76-130	0			
trans-1,2-Dichloroethene	27.36	0.5	5.0	19.88	0	138	65-137	0			S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273917		Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	13.61	0.48	5.0	19.88	0	68.4	58-126	0	
Trichloroethene	19.77	0.72	5.0	19.88	0	99.4	75-135	0	
Trichlorofluoromethane	22.51	0.71	5.0	19.88	0	113	62-136	0	
Vinyl chloride	25.93	0.7	5.0	19.88	0	130	57-143	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.45</i>	<i>0</i>	<i>0</i>	<i>19.88</i>	<i>0</i>	<i>103</i>	<i>83-132</i>	<i>0</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>21.9</i>	<i>0</i>	<i>0</i>	<i>19.88</i>	<i>0</i>	<i>110</i>	<i>83-111</i>	<i>0</i>	
<i>Surr: Dibromofluoromethane</i>	<i>21.41</i>	<i>0</i>	<i>0</i>	<i>19.88</i>	<i>0</i>	<i>108</i>	<i>77-125</i>	<i>0</i>	
<i>Surr: Toluene-d8</i>	<i>16.99</i>	<i>0</i>	<i>0</i>	<i>19.88</i>	<i>0</i>	<i>85.4</i>	<i>86-108</i>	<i>0</i>	<i>S</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273917** Instrument ID **VMS8** Method: **SW8260C**

MSD					Sample ID: 19101478-04A MSD			Units: µg/Kg		Analysis Date: 10/28/2019 11:09 A		
Client ID:					Run ID: VMS8_191027B			SeqNo: 6015937		Prep Date:		DF: 0.992
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	25.41	0.78	5.0	19.84	0	128	73-138	25.38	0.111	30		
1,1,2,2-Tetrachloroethane	16.44	0.63	5.0	19.84	0	82.8	71-126	14.33	13.7	30		
1,1,2-Trichloroethane	15.89	0.66	5.0	19.84	0	80.1	77-123	15.29	3.88	30		
1,1-Dichloroethane	23.56	0.62	5.0	19.84	0	119	63-148	24.23	2.82	30		
1,1-Dichloroethene	29.65	0.97	5.0	19.84	0	149	67-156	30.51	2.84	30		
1,2,3-Trichlorobenzene	12.16	1.8	5.0	19.84	0	61.3	73-129	4.185	97.6	30	SR	
1,2,4-Trichlorobenzene	11.75	1.1	5.0	19.84	0	59.2	70-132	3.777	103	30	SR	
1,2-Dibromo-3-chloropropane	13.41	0.98	5.0	19.84	0	67.6	48-127	12.79	4.72	30		
1,2-Dibromoethane	16.84	0.36	5.0	19.84	0	84.9	71-144	15.33	9.43	30		
1,2-Dichlorobenzene	12.76	0.69	5.0	19.84	0	64.3	77-127	7.604	50.6	30	SR	
1,2-Dichloroethane	18.66	0.56	5.0	19.84	0	94	77-127	19.99	6.88	30		
1,2-Dichloropropane	21.61	0.44	5.0	19.84	0	109	74-130	21.22	1.79	30		
1,3-Dichlorobenzene	12.59	0.61	5.0	19.84	0	63.4	75-133	6.799	59.7	30	SR	
1,4-Dichlorobenzene	12.39	0.63	5.0	19.84	0	62.4	74-130	6.481	62.6	30	SR	
2-Butanone	18.11	5.1	9.9	19.84	0	91.3	55-132	16.74	7.89	30		
2-Hexanone	13.53	1.8	5.0	19.84	0	68.2	55-124	12.4	8.76	30		
4-Methyl-2-pentanone	18.01	1.8	5.0	19.84	0	90.8	67-159	15.2	17	30		
Acetone	55.12	4.6	9.9	19.84	10.06	227	31-156	63.2	13.7	30	S	
Benzene	20.98	0.52	5.0	19.84	0	106	77-133	20.48	2.43	30		
Bromochloromethane	23.28	0.54	5.0	19.84	0	117	72-139	21.76	6.77	30		
Bromodichloromethane	22.25	0.6	5.0	19.84	0	112	69-133	20.75	6.96	30		
Bromoform	14.21	0.5	5.0	19.84	0	71.6	55-126	12.73	10.9	30		
Bromomethane	28.13	2.5	9.9	19.84	0	142	31-174	30.66	8.61	30		
Carbon disulfide	26.87	0.59	5.0	19.84	0	135	45-160	27.11	0.864	30		
Carbon tetrachloride	21.04	0.99	5.0	19.84	0	106	69-140	20.48	2.72	30		
Chlorobenzene	16.76	0.62	5.0	19.84	0	84.5	76-130	12.92	25.9	30		
Chloroethane	22.95	1.9	5.0	19.84	0	116	53-150	23.6	2.76	30		
Chloroform	25.09	0.81	5.0	19.84	0	126	72-132	24.66	1.71	30		
Chloromethane	21.55	0.99	9.9	19.84	0	109	43-150	22.58	4.7	30		
cis-1,2-Dichloroethene	24.2	0.54	5.0	19.84	0	122	74-134	24.34	0.57	30		
cis-1,3-Dichloropropene	19.43	0.6	5.0	19.84	0	98	62-134	19.98	2.77	30		
Dibromochloromethane	15.64	0.51	5.0	19.84	0	78.8	57-118	13.82	12.4	30		
Dichlorodifluoromethane	37.61	2.5	9.9	19.84	0	190	43-126	41.75	10.4	30	S	
Ethylbenzene	16.88	0.86	5.0	19.84	0	85.1	75-133	12.95	26.4	30		
Isopropylbenzene	18.46	0.84	5.0	19.84	0	93	74-137	12.52	38.3	30	R	
m,p-Xylene	33.77	2.2	2.5	39.68	0	85.1	75-134	25.25	28.9	30		
Methyl tert-butyl ether	22.03	0.61	5.0	19.84	0	111	62-136	21.69	1.57	30		
Methylene chloride	29.67	6.2	9.9	19.84	0	150	55-157	29.84	0.569	30		
o-Xylene	17.08	1.2	2.5	19.84	0	86.1	76-130	12.69	29.5	30		
Styrene	17.84	0.74	5.0	19.84	0	89.9	72-138	13.33	28.9	30		
Tetrachloroethene	23.52	0.88	5.0	19.84	0	119	70-171	18.16	25.7	30		
Toluene	19.86	0.85	5.0	19.84	0	100	76-130	18.22	8.61	30		
trans-1,2-Dichloroethene	27.17	0.5	5.0	19.84	0	137	65-137	27.36	0.711	30		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R273917		Instrument ID VMS8		Method: SW8260C						
trans-1,3-Dichloropropene	15.28	0.48	5.0	19.84	0	77	58-126	13.61	11.6	30
Trichloroethene	22.53	0.71	5.0	19.84	0	114	75-135	19.77	13	30
Trichlorofluoromethane	21.98	0.7	5.0	19.84	0	111	62-136	22.51	2.39	30
Vinyl chloride	24.25	0.69	5.0	19.84	0	122	57-143	25.93	6.69	30
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.51</i>	<i>0</i>	<i>0</i>	<i>19.84</i>	<i>0</i>	<i>98.4</i>	<i>83-132</i>	<i>20.45</i>	<i>4.67</i>	<i>30</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>21.75</i>	<i>0</i>	<i>0</i>	<i>19.84</i>	<i>0</i>	<i>110</i>	<i>83-111</i>	<i>21.9</i>	<i>0.656</i>	<i>30</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.74</i>	<i>0</i>	<i>0</i>	<i>19.84</i>	<i>0</i>	<i>99.5</i>	<i>77-125</i>	<i>21.41</i>	<i>8.12</i>	<i>30</i>
<i>Surr: Toluene-d8</i>	<i>16.72</i>	<i>0</i>	<i>0</i>	<i>19.84</i>	<i>0</i>	<i>84.2</i>	<i>86-108</i>	<i>16.99</i>	<i>1.62</i>	<i>30</i>

The following samples were analyzed in this batch:

19101554-01A	19101554-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274019a** Instrument ID **VMS10** Method: **SW8260C**

MBLK		Sample ID: VBK2-191028-R274019a				Units: µg/L		Analysis Date: 10/28/2019 09:17 P			
Client ID:		Run ID: VMS10_191028A				SeqNo: 6018753		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.46	1.0								
1,1,2,2-Tetrachloroethane	U	0.4	1.0								
1,1,2-Trichloroethane	U	0.46	1.0								
1,1,2-Trichlorotrifluoroethane	U	0.52	1.0								
1,1-Dichloroethane	U	0.44	1.0								
1,1-Dichloroethene	U	0.4	1.0								
1,2,3-Trichlorobenzene	U	0.42	1.0								
1,2,4-Trichlorobenzene	U	0.45	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.32	1.0								
1,2-Dichloroethane	U	0.44	1.0								
1,2-Dichloropropane	U	0.48	1.0								
1,3-Dichlorobenzene	U	0.33	1.0								
1,4-Dichlorobenzene	U	0.35	1.0								
2-Butanone	1.28	0.52	5.0								J
2-Hexanone	U	0.59	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	4.72	1.1	10								J
Benzene	U	0.46	1.0								
Bromochloromethane	U	0.45	1.0								
Bromodichloromethane	U	0.49	1.0								
Bromoform	U	0.56	1.0								
Carbon disulfide	U	0.49	1.0								
Carbon tetrachloride	U	0.4	1.0								
Chlorobenzene	U	0.4	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	3.63	0.83	1.0								
cis-1,2-Dichloroethene	U	0.42	1.0								
cis-1,3-Dichloropropene	U	0.57	1.0								
Cyclohexane	U	0.63	2.0								
Dibromochloromethane	U	0.4	1.0								
Dichlorodifluoromethane	U	0.68	1.0								
Ethylbenzene	U	0.34	1.0								
Isopropylbenzene	U	0.35	1.0								
m,p-Xylene	U	0.81	2.0								
Methyl acetate	U	0.59	2.0								
Methyl tert-butyl ether	U	0.45	1.0								
Methylcyclohexane	U	0.35	1.0								
Methylene chloride	U	0.86	5.0								
o-Xylene	U	0.31	1.0								
Styrene	U	0.33	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274019a		Instrument ID VMS10		Method: SW8260C					
Tetrachloroethene	U	0.39	1.0						
Toluene	U	0.45	1.0						
trans-1,2-Dichloroethene	U	0.48	1.0						
trans-1,3-Dichloropropene	U	0.38	1.0						
Trichloroethene	U	0.43	1.0						
Trichlorofluoromethane	U	0.52	1.0						
Vinyl chloride	U	0.53	1.0						
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.41</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>0</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.57</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.8</i>	<i>80-110</i>	<i>0</i>	
<i>Surr: Dibromofluoromethane</i>	<i>19.68</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.4</i>	<i>85-115</i>	<i>0</i>	
<i>Surr: Toluene-d8</i>	<i>19.69</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.4</i>	<i>85-110</i>	<i>0</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274019a** Instrument ID **VMS10** Method: **SW8260C**

LCS		Sample ID: VLCSW1-191028-R274019a				Units: µg/L		Analysis Date: 10/28/2019 07:51 P			
Client ID:		Run ID: VMS10_191028A				SeqNo: 6018749		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	19.18	0.46	1.0	20	0	95.9	75-130	0			
1,1,2,2-Tetrachloroethane	20.73	0.4	1.0	20	0	104	75-130	0			
1,1,2-Trichloroethane	20.63	0.46	1.0	20	0	103	75-125	0			
1,1-Dichloroethane	20.11	0.44	1.0	20	0	101	68-142	0			
1,1-Dichloroethene	19.77	0.4	1.0	20	0	98.8	70-145	0			
1,2,3-Trichlorobenzene	17.66	0.42	1.0	20	0	88.3	70-140	0			
1,2,4-Trichlorobenzene	17.85	0.45	1.0	20	0	89.2	70-135	0			
1,2-Dibromo-3-chloropropane	18.57	0.43	1.0	20	0	92.8	60-130	0			
1,2-Dibromoethane	21.09	0.41	1.0	20	0	105	67-155	0			
1,2-Dichlorobenzene	20.87	0.32	1.0	20	0	104	70-130	0			
1,2-Dichloroethane	19.87	0.44	1.0	20	0	99.4	78-125	0			
1,2-Dichloropropane	19.9	0.48	1.0	20	0	99.5	75-125	0			
1,3-Dichlorobenzene	20.42	0.33	1.0	20	0	102	75-130	0			
1,4-Dichlorobenzene	21.02	0.35	1.0	20	0	105	75-130	0			
2-Butanone	21.07	0.52	5.0	20	0	105	55-150	0			
2-Hexanone	19.03	0.59	5.0	20	0	95.2	60-135	0			
4-Methyl-2-pentanone	28.78	0.52	1.0	20	0	144	77-178	0			
Acetone	23.75	1.1	10	20	0	119	60-160	0			
Benzene	19.36	0.46	1.0	20	0	96.8	70-130	0			
Bromochloromethane	21.06	0.45	1.0	20	0	105	72-141	0			
Bromodichloromethane	21.05	0.49	1.0	20	0	105	75-125	0			
Bromoform	18.14	0.56	1.0	20	0	90.7	60-125	0			
Carbon disulfide	17.5	0.49	1.0	20	0	87.5	60-165	0			
Carbon tetrachloride	17.01	0.4	1.0	20	0	85	65-140	0			
Chlorobenzene	19.84	0.4	1.0	20	0	99.2	80-120	0			
Chloroethane	19.54	0.68	1.0	20	0	97.7	31-172	0			
Chloroform	20.19	0.46	1.0	20	0	101	66-135	0			
Chloromethane	22.71	0.83	1.0	20	0	114	46-148	0			B
cis-1,2-Dichloroethene	20.92	0.42	1.0	20	0	105	75-134	0			
cis-1,3-Dichloropropene	20.02	0.57	1.0	20	0	100	70-130	0			
Dibromochloromethane	17.85	0.4	1.0	20	0	89.2	60-115	0			
Dichlorodifluoromethane	23.25	0.68	1.0	20	0	116	20-120	0			
Ethylbenzene	19.4	0.34	1.0	20	0	97	76-123	0			
Isopropylbenzene	19.18	0.35	1.0	20	0	95.9	80-127	0			
m,p-Xylene	37.92	0.81	2.0	40	0	94.8	75-130	0			
Methyl tert-butyl ether	19.94	0.45	1.0	20	0	99.7	68-129	0			
Methylene chloride	20.16	0.86	5.0	20	0	101	72-125	0			
o-Xylene	19.92	0.31	1.0	20	0	99.6	76-127	0			
Styrene	20.2	0.33	1.0	20	0	101	83-137	0			
Tetrachloroethene	18.95	0.39	1.0	20	0	94.8	68-166	0			
Toluene	19.92	0.45	1.0	20	0	99.6	76-125	0			
trans-1,2-Dichloroethene	20.21	0.48	1.0	20	0	101	80-140	0			
trans-1,3-Dichloropropene	19.12	0.38	1.0	20	0	95.6	56-132	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274019a		Instrument ID VMS10		Method: SW8260C				
Trichloroethene	19.69	0.43	1.0	20	0	98.4	77-125	0
Trichlorofluoromethane	16.48	0.52	1.0	20	0	82.4	60-140	0
Vinyl chloride	19.47	0.53	1.0	20	0	97.4	50-136	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.11</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.51</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.6</i>	<i>80-110</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>20.22</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>19.79</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99</i>	<i>85-110</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274019a** Instrument ID **VMS10** Method: **SW8260C**

MS					Sample ID: 19101554-20A MS			Units: µg/L		Analysis Date: 10/29/2019 03:53 A		
Client ID: ER					Run ID: VMS10_191028A			SeqNo: 6018770		Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	22.38	0.46	1.0	20	0	112	75-130	0				
1,1,2,2-Tetrachloroethane	21.08	0.4	1.0	20	0	105	75-130	0				
1,1,2-Trichloroethane	20.88	0.46	1.0	20	0	104	75-125	0				
1,1-Dichloroethane	24.42	0.44	1.0	20	0	122	68-142	0				
1,1-Dichloroethene	26.52	0.4	1.0	20	0	133	70-145	0				
1,2,3-Trichlorobenzene	17.7	0.42	1.0	20	0	88.5	70-140	0				
1,2,4-Trichlorobenzene	18.34	0.45	1.0	20	0	91.7	70-135	0				
1,2-Dibromo-3-chloropropane	17.31	0.43	1.0	20	0	86.6	60-130	0				
1,2-Dibromoethane	21.79	0.41	1.0	20	0	109	67-155	0				
1,2-Dichlorobenzene	20.57	0.32	1.0	20	0	103	70-130	0				
1,2-Dichloroethane	20.85	0.44	1.0	20	0	104	78-125	0				
1,2-Dichloropropane	21.38	0.48	1.0	20	0	107	75-125	0				
1,3-Dichlorobenzene	20.78	0.33	1.0	20	0	104	75-130	0				
1,4-Dichlorobenzene	21.32	0.35	1.0	20	0	107	75-130	0				
2-Butanone	21.74	0.52	5.0	20	0	109	55-150	0				
2-Hexanone	19.65	0.59	5.0	20	0.23	97.1	60-135	0				
4-Methyl-2-pentanone	29.44	0.52	1.0	20	0	147	77-178	0				
Acetone	26.94	1.1	10	20	4.48	112	60-160	0				
Benzene	21.66	0.46	1.0	20	0	108	70-130	0				
Bromochloromethane	24.73	0.45	1.0	20	0	124	72-141	0				
Bromodichloromethane	20.85	0.49	1.0	20	0	104	75-125	0				
Bromoform	16.57	0.56	1.0	20	0	82.8	60-125	0				
Carbon disulfide	21.82	0.49	1.0	20	0	109	60-165	0				
Carbon tetrachloride	19.35	0.4	1.0	20	0	96.8	65-140	0				
Chlorobenzene	20.95	0.4	1.0	20	0	105	80-120	0				
Chloroethane	24.89	0.68	1.0	20	0	124	31-172	0				
Chloroform	23.89	0.46	1.0	20	0.19	118	66-135	0				
Chloromethane	19.84	0.83	1.0	20	0.63	96	46-148	0			B	
cis-1,2-Dichloroethene	23.67	0.42	1.0	20	0	118	75-134	0				
cis-1,3-Dichloropropene	19.77	0.57	1.0	20	0	98.8	70-130	0				
Dibromochloromethane	17.49	0.4	1.0	20	0	87.4	60-115	0				
Dichlorodifluoromethane	33.68	0.68	1.0	20	0	168	20-120	0			S	
Ethylbenzene	21.09	0.34	1.0	20	0	105	76-123	0				
Isopropylbenzene	21.59	0.35	1.0	20	0	108	80-127	0				
m,p-Xylene	41.99	0.81	2.0	40	0	105	75-130	0				
Methyl tert-butyl ether	22.7	0.45	1.0	20	0	114	68-129	0				
Methylene chloride	24.06	0.86	5.0	20	0	120	72-125	0				
o-Xylene	21.82	0.31	1.0	20	0	109	76-127	0				
Styrene	21.34	0.33	1.0	20	0	107	83-137	0				
Tetrachloroethene	21.41	0.39	1.0	20	0	107	68-166	0				
Toluene	21.31	0.45	1.0	20	0.14	106	76-125	0				
trans-1,2-Dichloroethene	25.11	0.48	1.0	20	0	126	80-140	0				
trans-1,3-Dichloropropene	18.64	0.38	1.0	20	0	93.2	56-132	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274019a		Instrument ID VMS10		Method: SW8260C				
Trichloroethene	22.15	0.43	1.0	20	0	111	77-125	0
Trichlorofluoromethane	22.92	0.52	1.0	20	0	115	60-140	0
Vinyl chloride	26.23	0.53	1.0	20	0.1	131	50-136	0
Surr: 1,2-Dichloroethane-d4	19.82	0	0	20	0	99.1	75-120	0
Surr: 4-Bromofluorobenzene	20.27	0	0	20	0	101	80-110	0
Surr: Dibromofluoromethane	19.61	0	0	20	0	98	85-115	0
Surr: Toluene-d8	18.75	0	0	20	0	93.8	85-110	0

The following samples were analyzed in this batch:

19101554-16A	19101554-18A	19101554-19A
19101554-20A	19101554-25A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MBLK		Sample ID: VLKS2-191029-R274062				Units: µg/Kg		Analysis Date: 10/29/2019 05:47 P			
Client ID:		Run ID: VMS8_191029A				SeqNo: 6020780		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	U	0.79	5.0								
1,1,2,2-Tetrachloroethane	U	0.64	5.0								
1,1,2-Trichloroethane	U	0.67	5.0								
1,1,2-Trichlorotrifluoroethane	U	1.1	5.0								
1,1-Dichloroethane	U	0.62	5.0								
1,1-Dichloroethene	U	0.98	5.0								
1,2,3-Trichlorobenzene	U	1.8	5.0								
1,2,4-Trichlorobenzene	U	1.1	5.0								
1,2-Dibromo-3-chloropropane	U	0.99	5.0								
1,2-Dibromoethane	U	0.36	5.0								
1,2-Dichlorobenzene	U	0.7	5.0								
1,2-Dichloroethane	U	0.56	5.0								
1,2-Dichloropropane	U	0.44	5.0								
1,3-Dichlorobenzene	U	0.61	5.0								
1,4-Dichlorobenzene	U	0.64	5.0								
2-Butanone	U	5.1	10								
2-Hexanone	U	1.8	5.0								
4-Methyl-2-pentanone	U	1.8	5.0								
Acetone	U	4.6	10								
Benzene	U	0.52	5.0								
Bromochloromethane	U	0.54	5.0								
Bromodichloromethane	U	0.6	5.0								
Bromoform	U	0.5	5.0								
Bromomethane	U	2.5	10								
Carbon disulfide	U	0.59	5.0								
Carbon tetrachloride	U	1	5.0								
Chlorobenzene	U	0.63	5.0								
Chloroethane	U	1.9	5.0								
Chloroform	U	0.82	5.0								
Chloromethane	U	1	10								
cis-1,2-Dichloroethene	U	0.54	5.0								
cis-1,3-Dichloropropene	U	0.6	5.0								
Cyclohexane	U	1.7	10								
Dibromochloromethane	U	0.51	5.0								
Dichlorodifluoromethane	U	2.5	10								
Ethylbenzene	U	0.87	5.0								
Isopropylbenzene	U	0.85	5.0								
m,p-Xylene	U	2.2	2.5								
Methyl acetate	U	1.2	10								
Methyl tert-butyl ether	U	0.61	5.0								
Methylcyclohexane	U	1.5	10								
Methylene chloride	U	6.2	10								
o-Xylene	U	1.2	2.5								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274062		Instrument ID VMS8		Method: SW8260C	
Styrene	U	0.75	5.0		
Tetrachloroethene	U	0.89	5.0		
Toluene	U	0.86	5.0		
trans-1,2-Dichloroethene	U	0.5	5.0		
trans-1,3-Dichloropropene	U	0.48	5.0		
Trichloroethene	U	0.72	5.0		
Trichlorofluoromethane	U	0.71	5.0		
Vinyl chloride	U	0.7	5.0		
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.23</i>	0	0	20	0
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.94</i>	0	0	20	0
<i>Surr: Dibromofluoromethane</i>	<i>20.04</i>	0	0	20	0
<i>Surr: Toluene-d8</i>	<i>20.03</i>	0	0	20	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

LCS		Sample ID: VLCSS1-191029-R274062				Units: µg/Kg		Analysis Date: 10/29/2019 05:13 P			
Client ID:		Run ID: VMS8_191029A				SeqNo: 6020779		Prep Date:		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.98	0.79	5.0	20	0	110	73-138	0			
1,1,2,2-Tetrachloroethane	18.43	0.64	5.0	20	0	92.2	71-126	0			
1,1,2-Trichloroethane	20.14	0.67	5.0	20	0	101	77-123	0			
1,1-Dichloroethane	21.66	0.62	5.0	20	0	108	63-148	0			
1,1-Dichloroethene	23.31	0.98	5.0	20	0	117	67-156	0			
1,2,3-Trichlorobenzene	20.61	1.8	5.0	20	0	103	73-129	0			
1,2,4-Trichlorobenzene	22.04	1.1	5.0	20	0	110	70-132	0			
1,2-Dibromo-3-chloropropane	18.79	0.99	5.0	20	0	94	48-127	0			
1,2-Dibromoethane	17.98	0.36	5.0	20	0	89.9	71-144	0			
1,2-Dichlorobenzene	22.38	0.7	5.0	20	0	112	77-127	0			
1,2-Dichloroethane	18.32	0.56	5.0	20	0	91.6	77-127	0			
1,2-Dichloropropane	18.92	0.44	5.0	20	0	94.6	74-130	0			
1,3-Dichlorobenzene	20.11	0.61	5.0	20	0	101	75-133	0			
1,4-Dichlorobenzene	19.19	0.64	5.0	20	0	96	74-130	0			
2-Butanone	18.97	5.1	10	20	0	94.8	55-132	0			
2-Hexanone	16.44	1.8	5.0	20	0	82.2	55-124	0			
4-Methyl-2-pentanone	22.78	1.8	5.0	20	0	114	67-159	0			
Acetone	23.73	4.6	10	20	0	119	31-156	0			
Benzene	19.95	0.52	5.0	20	0	99.8	77-133	0			
Bromochloromethane	20.38	0.54	5.0	20	0	102	72-139	0			
Bromodichloromethane	18.37	0.6	5.0	20	0	91.8	69-133	0			
Bromoform	18.94	0.5	5.0	20	0	94.7	55-126	0			
Bromomethane	30.7	2.5	10	20	0	154	31-174	0			
Carbon disulfide	22.24	0.59	5.0	20	0	111	45-160	0			
Carbon tetrachloride	18.69	1	5.0	20	0	93.4	69-140	0			
Chlorobenzene	20.63	0.63	5.0	20	0	103	76-130	0			
Chloroethane	22	1.9	5.0	20	0	110	53-150	0			
Chloroform	21.95	0.82	5.0	20	0	110	72-132	0			
Chloromethane	21.64	1	10	20	0	108	43-150	0			
cis-1,2-Dichloroethene	21.77	0.54	5.0	20	0	109	74-134	0			
cis-1,3-Dichloropropene	20.34	0.6	5.0	20	0	102	62-134	0			
Dibromochloromethane	17.72	0.51	5.0	20	0	88.6	57-118	0			
Dichlorodifluoromethane	32.87	2.5	10	20	0	164	43-126	0			S
Ethylbenzene	20.41	0.87	5.0	20	0	102	75-133	0			
Isopropylbenzene	19.93	0.85	5.0	20	0	99.6	74-137	0			
m,p-Xylene	40.06	2.2	2.5	40	0	100	75-134	0			
Methyl tert-butyl ether	18.77	0.61	5.0	20	0	93.8	62-136	0			
Methylene chloride	21.85	6.2	10	20	0	109	55-157	0			
o-Xylene	20.29	1.2	2.5	20	0	101	76-130	0			
Styrene	19.47	0.75	5.0	20	0	97.4	72-138	0			
Tetrachloroethene	21.45	0.89	5.0	20	0	107	70-171	0			
Toluene	20.88	0.86	5.0	20	0	104	76-130	0			
trans-1,2-Dichloroethene	22.05	0.5	5.0	20	0	110	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274062	Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	18.9	0.48	5.0	20	0	94.5	58-126	0
Trichloroethene	20.78	0.72	5.0	20	0	104	75-135	0
Trichlorofluoromethane	20.43	0.71	5.0	20	0	102	62-136	0
Vinyl chloride	23.18	0.7	5.0	20	0	116	57-143	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>18.53</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>92.6</i>	<i>83-132</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.34</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.7</i>	<i>83-111</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>21.66</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>108</i>	<i>77-125</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>19.81</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99</i>	<i>86-108</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MS					Units: µg/Kg			Analysis Date: 10/29/2019 11:30 P			
Client ID:		Run ID: VMS8_191029A			SeqNo: 6020799		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	17.49	0.79	5.0	20	0	87.4	73-138	0			
1,1,2,2-Tetrachloroethane	9.34	0.64	5.0	20	0	46.7	71-126	0			S
1,1,2-Trichloroethane	12.41	0.67	5.0	20	0	62	77-123	0			S
1,1-Dichloroethane	15.95	0.62	5.0	20	0	79.8	63-148	0			
1,1-Dichloroethene	21.17	0.98	5.0	20	0	106	67-156	0			
1,2,3-Trichlorobenzene	2.34	1.8	5.0	20	0	11.7	73-129	0			JS
1,2,4-Trichlorobenzene	2.45	1.1	5.0	20	0	12.2	70-132	0			JS
1,2-Dibromo-3-chloropropane	8.04	0.99	5.0	20	0	40.2	48-127	0			S
1,2-Dibromoethane	10.21	0.36	5.0	20	0	51	71-144	0			S
1,2-Dichlorobenzene	5.14	0.7	5.0	20	0	25.7	77-127	0			S
1,2-Dichloroethane	12.96	0.56	5.0	20	0	64.8	77-127	0			S
1,2-Dichloropropane	13.13	0.44	5.0	20	0	65.6	74-130	0			S
1,3-Dichlorobenzene	5.19	0.61	5.0	20	0	26	75-133	0			S
1,4-Dichlorobenzene	4.78	0.64	5.0	20	0	23.9	74-130	0			JS
2-Butanone	20.76	5.1	10	20	0.9619	99	55-132	0			
2-Hexanone	14.51	1.8	5.0	20	0	72.6	55-124	0			
4-Methyl-2-pentanone	14.64	1.8	5.0	20	0	73.2	67-159	0			
Acetone	107.6	4.6	10	20	2.525	525	31-156	0			SE
Benzene	14.14	0.52	5.0	20	0.3808	68.8	77-133	0			S
Bromochloromethane	14.62	0.54	5.0	20	0	73.1	72-139	0			
Bromodichloromethane	12.68	0.6	5.0	20	0	63.4	69-133	0			S
Bromoform	9.12	0.5	5.0	20	0	45.6	55-126	0			S
Bromomethane	18.75	2.5	10	20	0	93.8	31-174	0			
Carbon disulfide	18.09	0.59	5.0	20	0	90.4	45-160	0			
Carbon tetrachloride	15.21	1	5.0	20	0	76	69-140	0			
Chlorobenzene	9.23	0.63	5.0	20	0	46.2	76-130	0			S
Chloroethane	22.93	1.9	5.0	20	0	115	53-150	0			
Chloroform	15.77	0.82	5.0	20	0	78.8	72-132	0			
Chloromethane	16.12	1	10	20	0	80.6	43-150	0			
cis-1,2-Dichloroethene	15.57	0.54	5.0	20	0	77.8	74-134	0			
cis-1,3-Dichloropropene	11.81	0.6	5.0	20	0	59	62-134	0			S
Dibromochloromethane	9.88	0.51	5.0	20	0	49.4	57-118	0			S
Dichlorodifluoromethane	34.93	2.5	10	20	0	175	43-126	0			S
Ethylbenzene	10.02	0.87	5.0	20	0	50.1	75-133	0			S
Isopropylbenzene	9.27	0.85	5.0	20	0	46.4	74-137	0			S
m,p-Xylene	19.34	2.2	2.5	40	0	48.4	75-134	0			S
Methyl tert-butyl ether	15.81	0.61	5.0	20	0	79	62-136	0			
Methylene chloride	17.35	6.2	10	20	0	86.8	55-157	0			
o-Xylene	9.43	1.2	2.5	20	0	47.2	76-130	0			S
Styrene	7.97	0.75	5.0	20	0.3607	38	72-138	0			S
Tetrachloroethene	14.22	0.89	5.0	20	0	71.1	70-171	0			
Toluene	12.21	0.86	5.0	20	0	61	76-130	0			S
trans-1,2-Dichloroethene	16.71	0.5	5.0	20	0	83.6	65-137	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274062		Instrument ID VMS8		Method: SW8260C					
trans-1,3-Dichloropropene	9.87	0.48	5.0	20	0	49.4	58-126	0	S
Trichloroethene	13.88	0.72	5.0	20	0	69.4	75-135	0	S
Trichlorofluoromethane	19.42	0.71	5.0	20	0	97.1	62-136	0	
Vinyl chloride	22.72	0.7	5.0	20	0	114	57-143	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	21.72	0	0	20	0	109	83-132	0	
<i>Surr: 4-Bromofluorobenzene</i>	19.84	0	0	20	0	99.2	83-111	0	
<i>Surr: Dibromofluoromethane</i>	21.16	0	0	20	0	106	77-125	0	
<i>Surr: Toluene-d8</i>	18.59	0	0	20	0	93	86-108	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R274062** Instrument ID **VMS8** Method: **SW8260C**

MSD					Sample ID: 19101701-06A MSD			Units: µg/Kg		Analysis Date: 10/29/2019 11:47 P		
Client ID:					Run ID: VMS8_191029A			SeqNo: 6020800		Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	19.18	0.79	5.0	20	0	95.9	73-138	17.49	9.22	30		
1,1,2,2-Tetrachloroethane	11.78	0.64	5.0	20	0	58.9	71-126	9.34	23.1	30	S	
1,1,2-Trichloroethane	14.4	0.67	5.0	20	0	72	77-123	12.41	14.8	30	S	
1,1-Dichloroethane	18.34	0.62	5.0	20	0	91.7	63-148	15.95	13.9	30		
1,1-Dichloroethene	21.56	0.98	5.0	20	0	108	67-156	21.17	1.83	30		
1,2,3-Trichlorobenzene	4.28	1.8	5.0	20	0	21.4	73-129	2.34	0	30	JS	
1,2,4-Trichlorobenzene	4.37	1.1	5.0	20	0	21.8	70-132	2.45	0	30	JS	
1,2-Dibromo-3-chloropropane	10.28	0.99	5.0	20	0	51.4	48-127	8.04	24.5	30		
1,2-Dibromoethane	12.17	0.36	5.0	20	0	60.8	71-144	10.21	17.5	30	S	
1,2-Dichlorobenzene	8	0.7	5.0	20	0	40	77-127	5.14	43.5	30	SR	
1,2-Dichloroethane	15.79	0.56	5.0	20	0	79	77-127	12.96	19.7	30		
1,2-Dichloropropane	16.25	0.44	5.0	20	0	81.2	74-130	13.13	21.2	30		
1,3-Dichlorobenzene	7.64	0.61	5.0	20	0	38.2	75-133	5.19	38.2	30	SR	
1,4-Dichlorobenzene	7.14	0.64	5.0	20	0	35.7	74-130	4.78	39.6	30	SR	
2-Butanone	26.38	5.1	10	20	0.9619	127	55-132	20.76	23.8	30		
2-Hexanone	18.71	1.8	5.0	20	0	93.6	55-124	14.51	25.3	30		
4-Methyl-2-pentanone	17.99	1.8	5.0	20	0	90	67-159	14.64	20.5	30		
Acetone	131.8	4.6	10	20	2.525	647	31-156	107.6	20.2	30	SE	
Benzene	16.78	0.52	5.0	20	0.3808	82	77-133	14.14	17.1	30		
Bromochloromethane	17.79	0.54	5.0	20	0	89	72-139	14.62	19.6	30		
Bromodichloromethane	15.62	0.6	5.0	20	0	78.1	69-133	12.68	20.8	30		
Bromoform	10.68	0.5	5.0	20	0	53.4	55-126	9.12	15.8	30	S	
Bromomethane	21.4	2.5	10	20	0	107	31-174	18.75	13.2	30		
Carbon disulfide	17.44	0.59	5.0	20	0	87.2	45-160	18.09	3.66	30		
Carbon tetrachloride	15.68	1	5.0	20	0	78.4	69-140	15.21	3.04	30		
Chlorobenzene	11.98	0.63	5.0	20	0	59.9	76-130	9.23	25.9	30	S	
Chloroethane	23.55	1.9	5.0	20	0	118	53-150	22.93	2.67	30		
Chloroform	18.72	0.82	5.0	20	0	93.6	72-132	15.77	17.1	30		
Chloromethane	16.25	1	10	20	0	81.2	43-150	16.12	0.803	30		
cis-1,2-Dichloroethene	17.91	0.54	5.0	20	0	89.6	74-134	15.57	14	30		
cis-1,3-Dichloropropene	14.12	0.6	5.0	20	0	70.6	62-134	11.81	17.8	30		
Dibromochloromethane	11.62	0.51	5.0	20	0	58.1	57-118	9.88	16.2	30		
Dichlorodifluoromethane	34.15	2.5	10	20	0	171	43-126	34.93	2.26	30	S	
Ethylbenzene	12.03	0.87	5.0	20	0	60.2	75-133	10.02	18.2	30	S	
Isopropylbenzene	11.31	0.85	5.0	20	0	56.6	74-137	9.27	19.8	30	S	
m,p-Xylene	23.94	2.2	2.5	40	0	59.8	75-134	19.34	21.3	30	S	
Methyl tert-butyl ether	18.56	0.61	5.0	20	0	92.8	62-136	15.81	16	30		
Methylene chloride	20.74	6.2	10	20	0	104	55-157	17.35	17.8	30		
o-Xylene	11.88	1.2	2.5	20	0	59.4	76-130	9.43	23	30	S	
Styrene	10.83	0.75	5.0	20	0.3607	52.3	72-138	7.97	30.4	30	SR	
Tetrachloroethene	15.7	0.89	5.0	20	0	78.5	70-171	14.22	9.89	30		
Toluene	13.99	0.86	5.0	20	0	70	76-130	12.21	13.6	30	S	
trans-1,2-Dichloroethene	18.93	0.5	5.0	20	0	94.6	65-137	16.71	12.5	30		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
Work Order: 19101554
Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: R274062	Instrument ID VMS8			Method: SW8260C						
trans-1,3-Dichloropropene	11.63	0.48	5.0	20	0	58.2	58-126	9.87	16.4	30
Trichloroethene	15.79	0.72	5.0	20	0	79	75-135	13.88	12.9	30
Trichlorofluoromethane	19.91	0.71	5.0	20	0	99.6	62-136	19.42	2.49	30
Vinyl chloride	22.01	0.7	5.0	20	0	110	57-143	22.72	3.17	30
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.3</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>83-132</i>	<i>21.72</i>	<i>6.76</i>	<i>30</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.31</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.6</i>	<i>83-111</i>	<i>19.84</i>	<i>2.71</i>	<i>30</i>
<i>Surr: Dibromofluoromethane</i>	<i>21.52</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>108</i>	<i>77-125</i>	<i>21.16</i>	<i>1.69</i>	<i>30</i>
<i>Surr: Toluene-d8</i>	<i>18.45</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>92.2</i>	<i>86-108</i>	<i>18.59</i>	<i>0.756</i>	<i>30</i>

The following samples were analyzed in this batch:

19101554-
05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273495** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R273495				Units: % of sample			Analysis Date: 10/21/2019 03:45 P		
Client ID:		Run ID: MOIST_191021D				SeqNo: 6003570			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS		Sample ID: LCS-R273495				Units: % of sample			Analysis Date: 10/21/2019 03:45 P		
Client ID:		Run ID: MOIST_191021D				SeqNo: 6003569			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP		Sample ID: 19101594-10A DUP				Units: % of sample			Analysis Date: 10/21/2019 03:45 P		
Client ID:		Run ID: MOIST_191021D				SeqNo: 6003555			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.6	0.1	0.10	0	0	0	0-0	11.77	1.45	10	

DUP		Sample ID: 19101594-18A DUP				Units: % of sample			Analysis Date: 10/21/2019 03:45 P		
Client ID:		Run ID: MOIST_191021D				SeqNo: 6003564			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.79	0.1	0.10	0	0	0	0-0	14.01	1.58	10	

The following samples were analyzed in this batch:

19101554-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273580** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R273580				Units: % of sample			Analysis Date: 10/22/2019 01:14 P		
Client ID:		Run ID: MOIST_191022A				SeqNo: 6005790			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS		Sample ID: LCS-R273580				Units: % of sample			Analysis Date: 10/22/2019 01:14 P		
Client ID:		Run ID: MOIST_191022A				SeqNo: 6005789			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP		Sample ID: 19101554-12B DUP				Units: % of sample			Analysis Date: 10/22/2019 01:14 P		
Client ID: SB05-01-03D		Run ID: MOIST_191022A				SeqNo: 6005778			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	11.06	0.1	0.10	0	0	0	0-0	10.87	1.73	10	

DUP		Sample ID: 19101554-15B DUP				Units: % of sample			Analysis Date: 10/22/2019 01:14 P		
Client ID: SB07-01-03		Run ID: MOIST_191022A				SeqNo: 6005782			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	19.24	0.1	0.10	0	0	0	0-0	19.15	0.469	10	

The following samples were analyzed in this batch:

19101554-02B	19101554-03B	19101554-04B
19101554-05B	19101554-06B	19101554-07B
19101554-08B	19101554-09B	19101554-10B
19101554-11B	19101554-12B	19101554-13B
19101554-14B	19101554-15B	19101554-17B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tetra Tech
 Work Order: 19101554
 Project: Oak Street City Hall Site

QC BATCH REPORT

Batch ID: **R273584** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R273584				Units: % of sample			Analysis Date: 10/22/2019 04:19 P		
Client ID:		Run ID: MOIST_191022C				SeqNo: 6005875			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS		Sample ID: LCS-R273584				Units: % of sample			Analysis Date: 10/22/2019 04:19 P		
Client ID:		Run ID: MOIST_191022C				SeqNo: 6005874			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.1	0.10	100	0	100	98-102	0			

DUP		Sample ID: 19101700-14B DUP				Units: % of sample			Analysis Date: 10/22/2019 04:19 P		
Client ID:		Run ID: MOIST_191022C				SeqNo: 6005868			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	14.3	0.1	0.10	0	0	0	0-0	14.67	2.55	10	

DUP		Sample ID: 19101700-15B DUP				Units: % of sample			Analysis Date: 10/22/2019 04:19 P		
Client ID:		Run ID: MOIST_191022C				SeqNo: 6005870			Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.4	0.1	0.10	0	0	0	0-0	5.41	0.185	10	

The following samples were analyzed in this batch:

19101554-21B	19101554-22B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



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Customer Information				Project Information				ALS Project Manager: <u>EB</u> ALS Work Order #: <u>19101554</u>											
Parameter/Method Request for Analysis																			
Purchase Order		Project Name	<u>Oak St. City Hall</u>	A	<u>VOC</u>														
Work Order		Project Number		B	<u>SVOC</u>														
Company Name	<u>Tetra Tech</u>	Bill To Company	<u>Tetra Tech</u>	C	<u>TPH - ORO</u>														
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	<u>TPH - DRO</u>														
Address	<u>415 Oak Street</u>	Address	<u>415 Oak Street</u>	E	<u>TPH - GRO</u>														
City/State/Zip	<u>Kansas City, MO 64106</u>	City/State/Zip	<u>Kansas City, MO 64106</u>	F	<u>Metals</u>														
Phone	<u>(816) 412-1755</u>	Phone	<u>(816) 412-1755</u>	G	<u>PCBs</u>														
Fax	<u>(816) 410-1748</u>	Fax	<u>(816) 410-1748</u>	H															
e-Mail Address		e-Mail Address		I															
				J															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>SB01-01-03</u>	<u>10-16-19</u>	<u>1451</u>	<u>SOIL</u>	<u>In VOCs</u>	<u>5</u>	X	X	X	X	X	X	X				
2	<u>SB01-21-23</u>	<u>10-16-19</u>	<u>1507</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
3	<u>SB02-01-03</u>	<u>10-16-19</u>	<u>1538</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
4	<u>SB02-27-29</u>	<u>10-16-19</u>	<u>1613</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
5	<u>SB03-01-03</u>	<u>10-16-19</u>	<u>1653</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
6	<u>SB03-18-20</u>	<u>10-16-19</u>	<u>1704</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
7	<u>SB04-01-03</u>	<u>10-17-19</u>	<u>0822</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
8	<u>SB04-23-25</u>	<u>10-17-19</u>	<u>0900</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
9	<u>SB04-01-03</u>	<u>10-17-19</u>	<u>0910</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
10	<u>SB05-01-03</u>	<u>10-17-19</u>	<u>0919</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				

Sampler(s) Please Print & Sign		Shipment Method <u>FedEx</u>		Required Turnaround Time: (Check Box) <input type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> Other <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour				Results Due Date:	
Relinquished by:	<u>[Signature]</u>	Date:	<u>10-17-19</u>	Time:	<u>1600</u>	Received by:		Notes:	
Relinquished by:	<u>FedEx</u>	Date:	<u>10/18/19</u>	Time:	<u>0930</u>	Received by (Laboratory):		Cooler ID	
Logged by (Laboratory):	<u>KEJ</u>	Date:	<u>10/18/19</u>	Time:	<u>1635</u>	Checked by (Laboratory):		Cooler Temp.	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035						QC Package: (Check One Box Below) <input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP CheckList <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other			

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York, PA
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Customer Information				Project Information			ALS Project Manager: <u>EB</u> ALS Work Order #: <u>19101554</u>												
Parameter/Method Request for Analysis																			
Purchase Order		Project Name	<u>Oak St. City Hall</u>	A	<u>VOC</u>														
Work Order		Project Number		B	<u>SVOC</u>														
Company Name	<u>Tetra Tech</u>	Bill To Company	<u>Tetra Tech</u>	C	<u>TPH-GRO</u>														
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	<u>TPH-DRO</u>														
Address	<u>415 Oak Street</u>	Address	<u>415 Oak Street</u>	E	<u>TPH-GRO</u>														
City/State/Zip	<u>Kansas City, MO 64106</u>	City/State/Zip	<u>Kansas City, MO 64106</u>	F	<u>Metals</u>														
Phone	<u>(816) 412-1755</u>	Phone	<u>(816) 412-1755</u>	G	<u>PCBs</u>														
Fax	<u>(816) 410-1748</u>	Fax	<u>(816) 410-1748</u>	H															
e-Mail Address		e-Mail Address		I															
				J															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>SB05-13-15</u>	<u>10-17-19</u>	<u>1005</u>	<u>SOIL</u>	<u>IN VOAs</u>	<u>5</u>	X	X	X	X	X	X	X				
2	<u>SB05-01-03D</u>	<u>10-17-19</u>	<u>1010</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
3	<u>SB06-01-03</u>	<u>10-17-19</u>	<u>1054</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
4	<u>SB06-11-13</u>	<u>10-17-19</u>	<u>1103</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
5	<u>SB07-01-03</u>	<u>10-17-19</u>	<u>1127</u>	<u>SOIL</u>		<u>5</u>	X	X	X	X	X	X	X				
6	<u>FB</u>	<u>10-17-19</u>	<u>1210</u>	<u>WATER</u>	<u>VOAs & Metals</u>	<u>10</u>	X	X	X	X	X	X	X				
7	<u>SB07-37-39</u>	<u>10-17-19</u>	<u>1234</u>	<u>SOIL</u>	<u>IN VOAs</u>	<u>5</u>	X	X	X	X	X	X	X				
8	<u>SB04-GW</u>	<u>10-17-19</u>	<u>1252</u>	<u>WATER</u>	<u>VOAs & Metals</u>	<u>10</u>	X	X	X	X	X	X	X				
9	<u>SB04-GWD</u>	<u>10-17-19</u>	<u>1300</u>	<u>WATER</u>		<u>10</u>	X	X	X	X	X	X	X				
10	<u>ER</u>	<u>10-17-19</u>	<u>1330</u>	<u>WATER</u>		<u>10</u>	X	X	X	X	X	X	X				

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
<u>[Signature]</u>		<u>FEDEX</u>		<input type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> Other <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour					
Relinquished by:		Date:	Time:	Received by:		Notes:			
<u>[Signature]</u>		<u>10-17-19</u>	<u>1600</u>	<u>FE06</u>					
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID			
<u>FE06</u>		<u>10/18/19</u>	<u>0930</u>	<u>[Signature]</u>					
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Cooler Temp.			
<u>KR</u>		<u>10/18/19</u>	<u>1635</u>	<u>EB</u>					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035									

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South Charleston, WV
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York, PA
+1 717 505 5280

Customer Information				Project Information			ALS Project Manager: <u>EB</u> ALS Work Order #: <u>19101554</u>												
Parameter/Method Request for Analysis																			
Purchase Order		Project Name	<u>Oak St. City Hall</u>																
Work Order		Project Number																	
Company Name	Tetra Tech	Bill To Company	Tetra Tech																
Send Report To		Invoice Attn	Accounts Payable																
Address	415 Oak Street	Address	415 Oak Street																
City/State/Zip	Kansas City, MO 64106	City/State/Zip	Kansas City, MO 64106																
Phone	(816) 412-1755	Phone	(816) 412-1755																
Fax	(816) 410-1748	Fax	(816) 410-1748																
e-Mail Address		e-Mail Address																	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SB08-01-03	10-17-19	1420	SOIL	in Vials	5	X	X	X	X	X	X	X				
2	SB08-11-13	10-17-19	1438	SOIL	↓	5	X	X	X	X	X	X	X				
3	TB SOIL 1	NA		NA	HCL		X										
4	TB SOIL 2	NA	NA	NA	HCL												
5	TB - SOIL 1	NA	NA	WATER	HCL	3	X										
6	TB - SOIL 2	NA	NA	WATER	HCL	3	X										
7	TB - Water 1	NA	NA	WATER	HCL	3	X										
8	TB - Water 2	NA	NA	WATER	HCL	3	X										
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:	
<u>[Signature]</u>		<u>FEDEX</u>		<input type="checkbox"/> Std 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> Other _____ <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour					
Relinquished by:	Date:	Time:	Received by:	Notes:					
<u>[Signature]</u>	<u>10-17-19</u>	<u>1600</u>	<u>FEDEX</u>						
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)			
<u>FEDEX</u>	<u>10/18/19</u>	<u>0930</u>	<u>[Signature]</u>			<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other _____			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):						
<u>KE</u>	<u>10/18/19</u>	<u>1635</u>	<u>EB</u>						
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035									

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

Sample Receipt Checklist

Client Name: **TETRATECH - MO**

Date/Time Received: **18-Oct-19 09:30**

Work Order: **19101554**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

18-Oct-19
Date

Reviewed by: Ehland Bramworth
eSignature

21-Oct-19
Date

Matrices: Soil, Water

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.2, 4.2, 4.8, 5.4 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>10/18/2019 5:27:25 PM</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

Tetra Tech, Inc.
DATA VALIDATION REPORT
LEVEL II

Site: Oak Street City Hall Site, Poplar Bluff, Missouri

Laboratory: ALS Group, Inc. (Holland, Michigan)

Data Reviewer: Ann Weise, Tetra Tech, Inc. (Tetra Tech)

Review Date: December 2, 2019

Sample Delivery Group (SDG): 19101554

Sample Numbers:

SB01-01-03	SB01-21-23	SB02-01-03	SB02-27-29
SB03-01-03	SB03-18-20	SB04-01-03	SB04-23-25
SB04-01-03D	SB05-01-03	SB05-13-15	SB05-01-03D
SB06-01-03	SB06-11-13	SB07-01-03	Field Blank
SB07-37-39	SB04-GW	SB04-GWD	ER
SB08-01-03	SB08-11-13	TB-Soil 1	TB-Soil 2
TB-Water 1	TB-water 2		

Matrix / Number of Samples: 16 Discrete Soil Samples, 2 Duplicate Soil Samples, 2 Soil Trip Blanks, 1 Discrete Groundwater Sample, 1 Duplicate Groundwater Sample, 1 Equipment Rinsate Sample, and 2 Water Trip Blanks

The data were qualified according to the U.S. Environmental Protection Agency (EPA) entitled "Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review", "CLP NFG for Inorganic Superfund Data Review", both dated January 2017, and "CLP NFG for High-Resolution Superfund Methods Data Review" dated April 2016. In addition, the Tetra Tech document "Review of Data Packages from Subcontracted Laboratories" (February 2002) was used along with other criteria specified in the applicable methods.

The review was intended to identify problems and quality control (QC) deficiencies that were apparent from the summary data package. The following sections discuss any problems or deficiencies that were found, and data qualifications applied because of non-compliant QC. The data review was limited to the available field and laboratory QC information submitted with the project-specific data package.

I, Ann Weise, certify that all data validation criteria outlined in the above-referenced documents were assessed, and any qualifications made to the data accorded with those documents.



17 December 2019

Certified by Ann Weise, Environmental Scientist

Date

DATA VALIDATION QUALIFIERS

- U** — The analyte was not detected above the reported sample quantitation limit.
- J** — The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** — The analyte was not detected above the reported sample quantitation limit, which is estimated.
- R** — The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. Presence or absence of the analyte cannot be verified.

DATA ASSESSMENT

Sample delivery group (SDG) 19101554 included sixteen (16) discrete soil samples, one (1) environmental groundwater sample, and nine (9) QC samples (two field duplicate soil samples, one field duplicate water sample, two soil trip blanks, two water trip blanks, one water field blank, and one equipment rinsate). The samples were analyzed for volatile organic compounds (VOC) by EPA SW-846 Method 8260C, gasoline range organics by 8260GRO, semivolatile organic compounds by EPA SW-846 Method 8270D, diesel range organics by 8270, polychlorinated biphenyls (PCB) as Aroclors by EPA SW-846 Method 8082, and metals by EPA SW-846 Methods 6020A. The following summarizes the data validation that was performed.

VOLATILE ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory within required temperature parameters and analyzed within the established holding time of 14 days from sample collection to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from another SDG except GRO. The recoveries were within the control limits except for dichlorodifluoromethane and GRO. The VOC MS recovery was above the upper control limit for dichlorodifluoromethane. The corresponding results in the parent sample was nondetect, therefore no qualification is necessary for dichlorodifluoromethane. The GRO MS and/or MSD recoveries were above the upper control limit for samples 19101554-11A MS and -11A MSD. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for GRO.

III. Blanks

Chloromethane concentration in a method blank was greater than the quantitation limit. All samples in the batch were nondetect for chloromethane; therefore, no qualification is needed for chloromethane.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within QC limits except for dichlorodifluoromethane. The VOC LCS recovery for dichlorodifluoromethane was above the upper control limit. All the sample results were non-detect. No qualification is necessary for dichlorodifluoromethane.

V. Surrogate Recoveries

All surrogate recoveries were within QC limits, except for dibromofluoromethane in 18 soil samples. The laboratory attributed the result to preservative interference. No qualifications were applied by the laboratory. After data review, qualifiers (J+ for detected results and UJ for non-detected results) were added to the following samples:

SB01-01-03	SB05-01-03D
SB02-01-03	SB06-01-03
SB03-01-03	SB06-11-13
SB04-01-03	SB08-01-03
SB04-01-03D	SB08-11-13
SB04-23-25	TB-Soil 1
SB05-01-03	TB-Soil 2

VI. Comments

Some detected VOC results were below the sample reporting limits, which correspond to the lowest calibration standard. The laboratory correctly qualified these extrapolations as estimates (flagged “J”). The field duplicate results were not very comparable for the soil samples, likely indicating sample heterogeneity.

Analyte	Concentration/Qualifier					RPD
	SB04-01-03			SB04-01-03D		
2-Butanone	5.6	J		5.2	U	--
Acetone	38	J+		19	J+	67%

Analyte	Concentration/Qualifier				RPD
	SB05-01-03		SB05-01-03D		
Acetone	25	J+	47	J+	61%

Analyte	Concentration/Qualifier				RPD
	SB04-GW		SB04-GWD		
2-Butanone	0.63	J	0.68	J	8%
Acetone	5.4	J	5.2	J	4%
Chloroform	3.6		3.8		5%

VII. Overall Assessment of Data

Overall data quality is acceptable, with qualifications applied as noted previously. All VOC data are usable as reported for their intended purposes.

SEMIVOLATILES ORGANIC COMPOUNDS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory within required temperature parameters and analyzed within the established holding times of 14 days from sample collection to extraction and 60 days to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses, which were performed on a sample from other SDGs. MS/MSD analyses were within acceptable limits except for recovery for all analytes. No qualifications are applied based on the MS/MSD analyses.

III. Blanks

The equipment rinsates and method blanks had no detections of target SVOCs. No qualifications were applied.

IV. Laboratory Control Sample (LCS)

All LCS results were within QC limits except for 2,4-dimethylphenol for one sample batch and 2,4-dinitrophenol in a different sample batch. Neither of the analytes were detected in any site sample. No qualifications were applied.

V. Surrogate Recoveries

Surrogate recoveries were above the upper control limits for Nitrobenzene-d5 in sample SB07-37-39 indicating the associated SVOC sample results may be biased high. However, no SVOCs were detected in this sample and no qualifications were applied.

VI. Comments

One detected OROR (C21-C35) result was below the sample reporting limit, which correspond to the lowest calibration standard. The laboratory correctly qualified this result as estimated (flagged "J"). The field duplicate results were not very comparable for the soil samples, likely indicating sample heterogeneity.

VII. Overall Assessment of Data

Overall data quality is acceptable, with no qualifications applied. All data are usable as reported for their intended purposes.

POLYCHLORINATED BIPHENYLS (AROCLORS) ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory within required temperature parameters and analyzed within the established holding times. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

No qualifications were applied for the MS/MSD analyses.

III. Blanks

No analytes were detected in the laboratory blanks. No qualifications were applied.

IV. Laboratory Control Sample (LCS)

All LCS results were within QC limits. No qualifications were applied.

V. Surrogate Recoveries

All surrogate recoveries were within limits. No qualifications were applied.

VI. Comments

No Aroclors were detected in the field samples.

VII. Overall Assessment of Data

Overall data quality is acceptable, with no qualifications applied. All data are usable as reported for their intended purposes.

METALS ANALYSES

I. Holding Time and Chain of Custody (COC) Requirements

The samples were received by the laboratory and analyzed within the established holding time of 6 months (28 days for mercury) from sample collection to analysis. No data were qualified.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

No qualifications were applied for the MS/MSD analyses, which were performed on a sample MW-17A.

III. Blanks

The equipment rinsate had detections of mercury, aluminum, arsenic, barium, cadmium, calcium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, and zinc. The method blanks had low detections of iron, lead, manganese, and zinc. The associated compounds in the samples are flagged as not detected (U) if the blank result and sample result are less than the MRL. For metals detected in a blank greater than the MRL, J+ flags were added when the sample result is greater than the blank result but less than ten times the blank result. Results greater than ten times the blank results were not qualified based on blank contamination.

IV. Laboratory Control Sample (LCS)

All LCS recoveries were within their limits, so no qualifications were applied.

V. Comments

Many results were below the sample reporting limits, which correspond to the lowest calibration standard. The laboratory correctly qualified these extrapolations as estimates (flagged "J"). The field duplicate results were not very comparable for the soil samples, likely indicating sample heterogeneity.

VI. Overall Assessment of Data

Overall data quality is acceptable, with qualifications applied as noted previously. All data are usable as reported for their intended purposes.

ATTACHMENT 1

OAK STREET CITY HALL PROPERTY PROFILE PHASE II FORM



United States
ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

Form Approved
OMB Number No. 2050-0192
Expires 07-31-2012

PROPERTY PROFILE FORM—Brownfields

Public reporting burden for this collection of information is estimated to average 1.50 hours per response, including the time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate, or any other aspect of this collection of information, including suggestions for reducing this burden, to the Environmental Protection Agency, Office of Environmental Information, Code 2822T, Washington, DC 20460 and to the Paperwork Reduction Project, Office of Management and Budget, Washington, DC 20503. DO NOT RETURN your form to either of these addresses. Send your completed form to the address provided by the issuing office.

PART I- PROPERTY INFORMATION

COOPERATIVE AGREEMENT RECIPIENT INFORMATION

1. Cooperative Agreement Recipient Name (State/Tribe for Section 128(a) Cooperative Agreements; requestor/contractor for TBAs):

City of Poplar Bluff

2. Cooperative Agreement Number (contract number for TBAs):

68HE0719D0001

3. What type of cooperative agreement funding is being used for this property?

- ☒ Assessment ☐ Section 128(a) – State and Tribal Response
☐ Revolving Loan Fund ☒ TBA (EPA Regions Only)
☐ Cleanup

4. For Assessment, Cleanup, and Revolving Loan Fund cooperative agreements, what type of funding is being used at this property?

- ☒ Hazardous Substance ☐ Petroleum ☐ Both

5a. Indicate if this form is the initial or Updated Form:

- ☒ Initial Form ☐ Updated Form

5b. If "Updated Form," what's the ACRES Property ID?

PROPERTY BACKGROUND INFORMATION

6. Property Name: Oak Street City Hall

7a. Street Address: 101 Oak Street

7b. City: Poplar Bluff

7c. County: Butler

7d. State: MO

7e. Zip code: 63901

8. Size (in acres): 1.13

9. Parcel Number(s): 13-02-03-00-004-001.0000

STATE & TRIBAL BROWNFIELDS/VOLUNTARY RESPONSE PROGRAM INFORMATION

10. State & Tribal Program Enrollment (If the property is not enrolled in a state program, check Property Not Enrolled check box):

Date of Enrollment:

ID Number (if applicable):

☐ Property Not Enrolled in a State or Tribal Program

PROPERTY GEOGRAPHIC INFORMATION (EPA Brownfields Program, or its contractors, will provide complete latitude/longitude information if cooperative agreement recipients are unable)

11a. Latitude

(use 00.000000 decimal degree format):

36.757705

11b. Longitude

(use -000.000000 decimal degree format):

-90.391054

11c. Horizontal Collection Method:

Global Positioning Method- Unspecified Parameters

11d. Source Map Scale Number (Only if a map/photo was used):

11e. Reference Point (e.g., Center of Facility or Station):

Center of a Facility or Station

11f. Horizontal Reference Datum (Choose one):

- ☐ NAD27-North American Datum of 1927
☐ NAD83-North American Datum of 1983

☒ WGS84-World Geodetic System of 1984

PART II- ENVIRONMENTAL ACTIVITIES

ENVIRONMENTAL ASSESSMENT INFORMATION (mandatory for Assessment Cooperative Agreements, State & Tribal Property-Specific Assessments, and TBAs; as available for Cleanup and RLF cooperative agreement recipients; CA = Cooperative Agreement)

Table A – Environmental Assessment Activity (If there are multiple assessments, please use a separate line for each assessment)

Environmental Assessment Detail			Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this)					Name of Entity Providing Funds	Amount of Funding Expended on this Activity
Activity	Start Date	Completion Date	This US EPA CA	Other Federal	State/Tribal (exclude §128(a) funds)	Local Gov't	Private/ Other		
Phase I	7/19/2018	7/19/2018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MDNR	UNK
Phase II	10/9/2019	2/20/2020	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US EPA	\$52,000.00
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

12. Indicate whether cleanup is required: ☐ Yes ☒ No ☐ Unknown

CONTAMINANTS & MEDIA AFFECTED INFORMATION (mandatory for all cooperative agreement types)

Table B - Contaminants and Media Affected (check all that apply):

Contaminants			
Class of Contaminant	REC*	Found	Cleaned Up
Petroleum/Petroleum Products	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Controlled Substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asbestos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PCBs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOCs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Metals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PAHs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Contaminants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No Contaminants	<input type="checkbox"/>		
Unknown			

Media		
Media	Affected	Cleaned Up
Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air	<input type="checkbox"/>	<input type="checkbox"/>
Surface Water	<input type="checkbox"/>	<input type="checkbox"/>
Ground Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Building Materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sediments	<input type="checkbox"/>	<input type="checkbox"/>
No Media Affected	<input type="checkbox"/>	
Unknown	<input type="checkbox"/>	

*REC = Recognized Environmental Conditions ☐

ENVIRONMENTAL CLEANUP INFORMATION (mandatory for Cleanup and RLF

Cooperative Agreements and State & Tribal Property-Specific Cleanups; as available for Assessment Cooperative Agreements and TBAs)

13. Cleanup Activity Start Date: _____ 14. Cleanup Activity Completion Date: _____ 15. Acres Cleaned Up: _____

16. Date No Further Action/Cleanup Completion Document Issued

(If the property was not enrolled in a state or tribal program, leave blank):

Date: _____

17. Number of Cleanup Jobs Leveraged: _____

18. If EPA Brownfields funding was used, indicate the type and amount (If any non-EPA funding was used, fill out Table C):

Type Amount
☐ Cleanup Cooperative Agreement _____

Type Amount
☐ RLF Subgrant _____

☐ RLF Loan _____
 Date RLF Loan Signed _____

☐ Section 128(a) State/Tribal Cooperative Agreement _____

Table C - Environmental Cleanup Leveraged Funding Detail

Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this EPA Cooperative Agreement)				Name of Entity Providing Funds	Amount of Funding Expended on this Activity
Other Federal	State/Tribal (exclude §128(a) funds)	Local Gov't	Private/ Other		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

PART II- ENVIRONMENTAL ACTIVITIES (continued)

INSTITUTIONAL & ENGINEERING CONTROLS INFORMATION *(mandatory for all cooperative agreement types)*

19a. Indicate whether Institutional Controls are required: ☐ Yes ☐ No ☒ Unknown

19b. If Institutional Controls were required, indicate the category (check all that apply):

- ☐ Proprietary Controls (e.g., easements, covenants) ☐ Governmental Controls (e.g., zoning, building codes)
- ☐ Informational Devices (e.g., state registries, deed notices) ☐ Enforcement/Permit Tools (e.g., permits, consent decrees)

Additional Institutional Controls Information:

Subject property not being used at this time for anything other than storage and parking.

Address of Data Source (URL if available): _____

19c. Indicate whether Institutional Controls in place: ☐ Yes ☒ No Date: _____

20a. Indicate whether Engineering Controls are required: ☐ Yes ☐ No ☒ Unknown

20b. If Engineering Controls were required, indicate the category (check all that apply):

- ☐ Cover Technologies (e.g., Capping) ☐ Immobilization Process (e.g., Encapsulation, In-Situ Solidification) ☐ Engineered Barriers (e.g., Slurry Walls, Sheet)
- ☐ Security (e.g., Guard, Fences) ☐ Other _____

Additional Engineering Controls Information:

Address of Data Source (URL if available): _____

20c. Indicate whether Engineering Controls in place: ☐ Yes ☒ No Date: _____

REDEVELOPMENT AND OTHER LEVERAGED ACCOMPLISHMENTS *(Mandatory for Assessment, Cleanup and RLF Cooperative Agreements; as available for State and Tribal Property Specific Activities and TBAs)*

21. Redevelopment Start Date: _____ **22.** Redevelopment Completion Date: _____

Table D- Redevelopment Leveraged Funding Detail

Source of Funding (enter one source of funding per line; do not include funding received prior to the award of this EPA Cooperative Agreement)				Name of Entity Providing Funds	Amount of Funding Expended on this Activity
Other Federal	State/Tribal	Local Gov't	Private/ Other		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

23. Number of Redevelopment Jobs Leveraged: _____

24. Future Use and Estimated Acreage (check all that apply; For properties with multi-story buildings only, please indicate also the square footage for each type of reuse (e.g. a three story building with first floor commercial and remaining floors residential).

- ☐ Multi-story building
- ☐ Greenspace _____ acres _____ sq. ft. ☐ Commercial _____ acres _____ sq. ft.
- ☐ Industrial _____ acres _____ sq. ft. ☐ Residential _____ acres _____ sq. ft.

25. Actual Acreage(s) and Type(s) of Greenspace Created: _____

PART II- ENVIRONMENTAL ACTIVITIES (continued)

ANECDOTAL PROPERTY INFORMATION (as available for all cooperative agreement types)

26. Property Highlights:

The site is in a mixed-use commercial and residential area of Poplar Bluff, encompasses approximately 1.13 acres, and is developed with an approximately 35,932-square-foot former hospital building, a 2,970 square-foot warehouse, a communications tower, and a paved parking area. Historical documentation and information provided by the key site manager indicate that the site had been used as a hospital from at least as early as 1939 (according to the City Directory from that year) until 1975. No information could be found regarding use of the property after that date until 1986, when the City Directory listed Poplar Bluff Professional Beauty Academy, a neurological center, a physician's office, and Muzac Communication Systems occupying the address. The City purchased the site in 1990 and thereafter utilized it as the location of City Hall, the police department, and municipal court until recent deteriorating conditions of the buildings forced relocations

PROPERTY PHOTOGRAPH INFORMATION

27. Indicate whether photographs are available: ☒ Yes ☐ No 28. Indicate whether video is available: ☐ Yes ☒ No

PART III- ADDITIONAL PROPERTY INFORMATION

PROPERTY HISTORY INFORMATION

29. Property Description / History / Past Ownership:

See 26 above.

30. Predominant Past Use(s) (check all that apply; For properties with multi-story buildings only, please indicate also the square footage for each type of reuse (e.g. a three story building with first floor commercial and remaining floors residential):

☒ Multi-story building

☐ Greenspace _____ acres _____ sq. ft. ☒ Commercial 1.13 acres _____ sq. ft.

☐ Residential _____ acres _____ sq. ft. ☐ Industrial _____ acres _____ sq. ft.

OWNERSHIP & SUPERFUND LIABILITY (Mandatory for Cleanup and RLF Cooperative Agreements)

31a. Ownership Entity:

☒ Government (Tribal, State, Local) ☐ Private

32a. During the life of the cooperative agreement, did ownership change?

☐ Yes ☒ No

31b. Current Owner:

City of Poplar Bluff

32b. If "yes," did Superfund federal landowner liability protections factor into the ownership change?

☐ Yes ☐ No ☐ Unknown

PART IV- APPROVALS

33. Cooperative Agreement Recipient Project Manager

Name (please print):

Signature

Date:

34. US EPA Regional Representative

Name (please print):

Signature

Date: