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Phase II Environmental Site Assessment

FORMER INTERNAL REVENUE SERVICE FACILITY

200 WEST FOURTH STREET
COVINGTON, KENTUCKY 41011

ATC Project No. 241EN00715

Prepared for:

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August 21, 2020

EXECUTIVE SUMMARY

ATC Group Services LLC completed a Phase II Environmental Site Assessment (ESA) of a former Internal Revenue Service (IRS) facility located at 200 West Fourth Street in Covington, Kenton County, Kentucky during July-August 2020. The Property is occupied by a vacant IRS facility, a child care facility and parking lots. The Property is located in a mixed residential and commercial/industrial use area.

The purpose of the study was to evaluate 21 *recognized environmental conditions (RECs)* identified during a previous Phase I ESA: i) the historical presence of 17 on-site and two up-gradient off-site facilities that potentially used/released hazardous materials and/or petroleum products, ii) the lack of assessment data from the removal of two fuel oil underground storage tanks (USTs) in a common tank cavity on-site and iii) the presence of apparent uncontrolled fill material in the northeastern portion of the Property.

The scope of work completed for this assessment included: i) geophysical surveys of areas suspected to have had USTs or buried material, ii) test pit excavation of three apparent geophysical anomalies, iii) installation of eighteen test borings, twelve groundwater monitoring and nine sub-slab vapor sampling ports within the former IRS building, iv) soil, groundwater, soil gas and ambient air sampling and analysis, v) data compilation/evaluation and vi) project documentation.

A total of 19 soil boring samples, 3 test pit grab soil samples, 11 groundwater samples, 9 soil vapor samples and 2 ambient air samples were collected and analyzed. Samples were analyzed for chemicals of concern specific to each *REC*/area being investigation. Analytical results were evaluated and compared relative to applicable or relevant and appropriate requirements (ARARs) for residential and commercial/industrial exposure scenarios. USEPA generic risk-based Regional Screening Levels, USEPA vapor intrusion screening levels and/or state-specific background concentrations (as applicable) were utilized as ARARs.

Geophysical investigation identified three anomalies suggestive of buried underground storage tanks (USTs) or structures. Test excavations identified three residual USTs at two locations and a concrete vault containing sludge at a third location.

Sampling/analysis quantified conditions in excess of ARARs as outlined below.

- PAH impact to soils at three locations across the Property,
- PAH impact to groundwater at two locations in the central portion of the Property,
- Local metals impact to groundwater (though concentrations were relatively low and likely associated with sample turbidity), and
- Naphthalene impact to soil gas/indoor air in the central portion of the Property.

Although conditions quantified during this assessment are not suggestive of large scale or widespread environmental impact at the Property, conditions quantified in excess of ARARs should be addressed and remedied in association with Property redevelopment.

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ATTACHMENTS

1.0 INTRODUCTION

ATC Group Services LLC (ATC) completed a Phase II Environmental Site Assessment (ESA) of a former IRS facility property located at 200 West Fourth Street, Covington, Kenton County, Kentucky (the "Property") during July-August, 2020. The work was completed in general accordance with ATC Proposal No. 20-14045 and associated change orders dated July 8 and July 27, 2020. This report documents our methodology and findings.

1.1 Background Information

The Property is composed of two parcels that were both owned by the United States of America at the time of our field data collection. The smaller western parcel is bound to the north by West Third Street, on the east by Johnson Street, on the south by West Fourth Street, and on the west by the approach to the Clay Wade Bailey Bridge (US 42). The larger 20.5-acre parcel is bound to the north by Rivercenter Boulevard, on the east by Washington Street and Madison Avenue, on the south by West Fourth Street and Spence Square and on the west by Johnson Street. The Property location is shown in Figure 1.

ATC previously completed a Phase I ESA of the Property. The Phase I ESA report, dated July 30, 2020, identified 21 *recognized environmental conditions (RECs)* in association with the Property.

Historical records indicate that the Property was formerly occupied by 17 businesses of potential environmental concern, including three gasoline service stations, eight auto repair/auto sales businesses, two dry cleaners and four manufacturing facilities. Two off-site gasoline service stations were also located south of the Property across West Fourth Street in the apparent up-gradient direction. Given the potential for past releases of hazardous materials or petroleum products from these 19 facilities, they were each considered a *REC*.

Historical maps dated 1886 indicated an area described as "low area being filled" located near the northeastern corner of the Property. Given the potential for hazardous materials or petroleum products to have been placed in the filled area, it was also considered a *REC*.

One diesel fuel UST and two fuel oil USTs were removed from the Property in the 1990s. Two additional fuel oil USTs were abandoned-in-place at the same time. Conditions quantified in association with the abandoned-in-place USTs and the diesel fuel UST did not exceed applicable action levels for regulated USTs. The Kentucky Department of Environmental Protection (KDEP) assigned a No Further Action (NFA) regulatory status to these USTs. ATC reviewed closure assessment data relative to current UST closure assessment requirements. Data was not suggestive of residual impact in excess of current standards. Accordingly, the NFA'd USTs represent *historical RECs (HRECs)*.

Records of closure assessment were not identified for the two fuel oil USTs removed. Given the apparent lack of assessment, the potential exists for residual impact to be present from these USTs. Potential impact associated with these former USTs was considered a *REC*.

REC locations and a general site plan are shown in Figure 2.

1.2 Purpose and Scope of Study

The purpose of the study was to evaluate potential environmental impact to the Property associated with the above-referenced *RECs* identified in ATC's Phase I ESA. The scope of work completed for this assessment included: i) geophysical investigation of areas suspected to have had USTs or buried material, ii) test pit investigation of three apparent geophysical anomalies, iii) installation of eighteen test borings, twelve groundwater monitoring wells, and nine sub-slab vapor sampling ports within the former IRS building, iv) soil, groundwater, soil gas and ambient air sampling and analysis, v) data compilation and evaluation and vi) report preparation to document our findings.

1.3 Property Description

The Property and surrounding areas are generally flat. The larger Property parcel is developed with a one-story IRS facility, a mechanical systems building, a salt shed and a one-story child care facility. The remainder of the parcel is covered by asphalt parking lots and landscaping. The IRS facility is currently vacant except for a skeleton crew of maintenance personnel. The on-site childcare building is occupied and operational as "The Learning Grove". The smaller Property parcel is developed as a parking lot.

Adjacent areas are used for mixed, commercial and industrial purposes. A flood levee for the Ohio River is located to the north. A general Property plan is shown in Figure 2.

1.3.1 Physical Characteristics

The Property is located in the Ohio River valley proximal to a flood levee that borders the south bank of the west-flowing Ohio River. According to the *USGS Covington, Kentucky-Ohio* 7.5-Minute Topographic Quadrangle Map dated 1981 (revised 1987) the Property is located approximately 500 feet above mean sea level.

According to the *Geologic Map of Part of the Covington Quadrangle, Northern Kentucky* (U.S. Geologic Survey, 1971), the Property is located in an area underlain by glacial outwash deposits (gravel, sand, silt and clay) of Wisconsin age. Ordovician limestone and shale bedrock is present at depth. According to the United States Department of Agriculture (USDA) Web Soil Survey, one soil type occurs beneath the Property: Urban land (Ur). Urban land are areas that are covered by streets, buildings or other structures that obscure or alter the soils such that identification is not feasible.

According to the U.S.G.S. *Availability of Ground Water in Boone, Campbell, Grant, Boone and Pendleton Counties, Kentucky*, dated 1960, the Property is located in an area in which geologic materials provide an excellent source of ground water. Most wells drilled in the area through alluvial deposits will provide several hundred gallons per minute (gpm). The maximum reported yield is 1,000 gpm. Water is hard or very hard but otherwise of good quality.

1.4 Intended Use

Property use is currently commercial. ATC understands that the City of Covington plans to demolish the existing facility and redevelop the Property. For purposes of this assessment, data was evaluated relative to both residential and commercial/industrial exposure scenarios.

1.5 Chemicals-of-Concern (COCs)

Historic businesses of environmental concern included dry cleaners, gasoline service stations, auto repair shops, auto sales lots, and manufacturing. Areas of concern also included former fuel oil USTs and uncontrolled fill. Accordingly, a broad range of chemicals of concern (COCs) were included in this assessment on an area-specific basis, pending the nature of the *REC* for a given location. COCs included volatile organic compounds (VOCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), polynuclear aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs) and RCRA metals. The analytical plan for soil, groundwater and soil gas samples is summarized in Table 1.

1.6 Methodology

The assessment was designed to characterize and quantify environmental conditions at the Property associated with *RECs* as identified during ATC's recently completed Phase I ESA. Eighteen soil borings were installed in the area of eighteen *RECs* (SB-1 to SB-18); soil samples were collected from each for screening and potential analysis. Twelve of the borings were converted to one-inch diameter groundwater monitoring wells (MW-1 to MW-12). Two boring/wells were located along the southern border of the Property to assess possible contaminant migration from up-gradient off-site *RECs* (SB-4/MW-4 and SB-7/MW-7). Soil borings were completed to depths between 6 and 28 feet below ground surface (bgs).

The scope and methodology are outlined below.

Geophysical Survey

- Seven areas were investigated for the potential presence of residual USTs and/or buried materials of concern using electro-magnetic (EM) and ground-penetrating radar (GPR) geophysical techniques. Such data was used to identify metallic/GPR anomalies suggestive of buried tanks/drums and/or to identify potential former tank cavities, to facilitate representative data collection from such areas.

Test Pit Excavation

- Three test pits were excavated in areas of geophysical anomalies to investigate suspect USTs/structures.
- Soil samples were collected from excavation areas and analyzed for applicable COCs.

Test Boring/Monitoring Well/Vapor Pin Sampling and Laboratory Analysis

- Soil borings were advanced in areas of *RECs* across the Property (18 locations).
- Soil samples were field screened for evidence of environmental impact using a photoionization detector (PID) and visual/olfactory evaluation.
- One soil sample was analyzed from each of 17 borings (SB-1 to SB-6 and SB-8 to SB-18) for VOCs, PAHs, TPH, PCBs and/or RCRA metals; two additional samples were analyzed from boring SB-3.
- One-inch diameter PVC pre-pack monitoring wells were installed in twelve of the borings to facilitate collection of groundwater samples and hydrogeologic measurements.
- Wells were subsequently developed and sampled using low flow techniques.
- Groundwater samples were analyzed for VOCs, PAHs and/or RCRA metals.
- Three vapor pins® were installed in each of three *REC* areas (nine vapor pins total) inside of the IRS facility.
- Sub-slab soil gas samples were collected from each vapor pin location, as well as two ambient air samples (one indoor and one outdoor).
- Air samples were analyzed for VOCs.

Data Compilation/Evaluation

- Data was evaluated relative to applicable or relevant and appropriate requirements (ARARs). ARARs utilized included: USEPA Regional Screening Levels (RSLs), USEPA vapor intrusion screening levels and/or state-specific soil background concentrations.

Project Documentation

- This report documents our methods, findings and conclusions.

Mr. Michael Luessen, an ATC Principal Geologist and KY P.G (#113028), was responsible for work scope development and implementation including data evaluation/review. Mr. Michael Baumgartner and Mr. Nick Stewart, ATC Geologists, supervised subcontractors for geophysical investigation, excavation and drilling operations, and performed sampling activities. Mr. William Norris, an ATC Senior Project Geologist, was responsible for data compilation and report preparation. Resume's for key personnel are provided in Appendix A.

2.0 GEOPHYSICAL INVESTIGATION

A geophysical survey was performed at the Property on July 14-15, 2020 by Grumman Exploration, Inc. (Grumman) of Columbus, Ohio, an ATC subcontractor. Grumman surveyed seven areas of the Property where residual USTs, structures or wastes may have been buried, including former gasoline service stations, auto repair facilities, auto sales lots and an area of fill material.

Grumman employed a GSSI GEM-300 multi-frequency electromagnetic (EM) induction profiling system which was used to identify buried metallic objects. The EM equipment was used to survey each area continuously in a grid pattern based on traverses spaced approximately 5 feet apart. The relative depths of subsurface EM conductivity measurements correspond to the operational frequencies used during the survey. Grumman selected frequencies of 15, 9.8, and 4.4 kilohertz (kHz) for this survey. The EM instrumentation had a maximum exploration depth of approximately 15 to 20 feet below ground surface.

Grumman also employed ground-penetrating radar (GPR) to identify subsurface structures/objects. The system used was a GSSI SIR-4000 in conjunction with a 400 MHz dipole antenna. The GPR survey was performed in five of the seven areas along targeted transects mainly across areas with anomalous EM responses and locations of interest based on historical information. Survey results are summarized below.

Survey Area	Historic Use	Results
#1	Fuel Oil USTs, Radiator Service	No strong EM or GPR anomalies. Chaotic GPR reflections in southeast area may represent former fuel oil UST cavity.
#2	Fill Materials	Small but strong EM anomaly observed. GPR reflections suggest a cylindrical object that may be a small UST but most likely a utility based on proximity to a water line and fire hydrant.
#3	Auto Repair NE Electro Plating Auto Sales NE	Strong EM anomaly observed. GPR reflections suggest a buried object although such results may be due to more deeply buried objects overlain by conductive backfill.
#4	Auto Repair SE Auto Sales SE	No strong EM anomalies. GPR was not conducted.

Survey Area	Historic Use	Results
#5	Bonded Sta. E	No strong EM anomalies. GPR was not conducted.
#6	4th St. Dry Cleaner Texaco Sta. Bonded Sta. W	A large EM anomaly observed in the western portion consistent with a UST. GPR reflections suggest a buried object although such results may be due to more deeply buried objects overlain by conductive backfill. A second small EM anomaly in the southeastern area likely represents metal debris.
#7	Auto Repair & Painting	Strong rectangular-shaped EM anomaly observed in the southeast-central area. Likely a reinforced concrete structure.

Grumman noted that invasive exploration would be required to determine the nature of observed anomalies. A copy of the geophysical survey report is included in Appendix B.

3.0 SUBSURFACE INVESTIGATION

ATC performed subsurface investigation at the property during July-August 2020. The scope of study included the following elements:

- preparation of a health and safety plan,
- a geophysical survey of select areas across the property,
- excavation of three test pits in the area of three geophysical anomalies,
- the installation of 18 soil test borings (twelve of which were converted to groundwater monitoring wells),
- installation of nine sub-slab vapor pins inside the IRS building and
- soil/groundwater/air sampling and analysis.

3.1 Health and Safety

A project-specific health and safety plan (HASP) was prepared in accordance with the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120. Members of the work crew were required to review and sign-off on the plan prior to the start of work.

The boring locations were cleared for utilities prior to initiating drilling. The Kentucky 811 Call Before You Dig Service was notified prior to initiation of drilling activities such that public utilities could be marked and avoided at the Property. A private utility locating service, The Underground Detective, Inc. (TUD) of Cincinnati, Ohio, was used to locate private and unmarked subgrade utilities in the work area.

3.2 Soil Boring Installation

Eighteen soil borings (SB-1 to SB-18) were installed on July 16, 17 and 20, 2020 at locations shown in Figure 3. Twelve borings were converted to 1-inch groundwater monitoring wells upon completion. Borings converted to wells were advanced approximately 4 feet into saturated conditions (16 to 28 feet deep). Borings that were not converted to monitoring wells were advanced to depths between 6 and 12 feet.

Drilling services were provided by EnviroCore, Inc., an ATC subcontractor. Borings were installed using a hydraulic-push drilling rig. Soil samples were collected continuously to the termination depth of each boring.

3.3 Soil Sampling and Analysis

Soil samples were collected, inspected and classified by an ATC geologist. Nitrile gloves were worn by ATC's representative and changed between samples to prevent possible cross-contamination. Soil samples were split into two aliquots. One aliquot was collected in two 4-ounce pre-cleaned glass jars with Teflon-lined lids and immediately placed on ice in a cooler for potential laboratory analysis. The other aliquot was placed in a sealable polyethylene bag for field screening with a photoionization detector (PID) with an 11.8 eV lamp, which measures total photoionizable vapors in parts per million (ppm). The PID was calibrated with an isobutylene standard prior to use. Boring logs are provided in Appendix C.

One soil sample from each boring (except borings SB-3 and SB-4) was submitted to ALS Environmental Laboratories (ALS) in Cincinnati, Ohio under chain-of-custody controls. Three samples were selected from SB-3 for VOC analysis. No soil samples were submitted from boring SB-4. Selected samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260, benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270, total petroleum hydrocarbons (TPH) full range by EPA Method 8015M, polychlorinated biphenyls (PCBs) by EPA Method 8082 and/or RCRA metals by EPA Method 6010/7471. Sample selection was based on physical evidence of potential impact, PID readings and/or area of potential release/migration. Sample selection for analysis is outlined below.

Sample Location	Depth (ft.)	VOCs/ BTEX	PAHs	TPH	PCBs	RCRA metals
SB-1	10-12	X	X	X		X
SB-2	6-8	X	X	X		X
SB-3	4-6, 8-10, 10-12	X				
SB-5	4-6	X	X	X		X
SB-6	6-8	X	X	X		X
SB-8	8-10	X	X	X		X
SB-7	2-4	X	X	X		X
SB-9	8-10	X (BTEX)	X	X		
SB-10	6-8	X	X			X
SB-11	4-6	X	X	X	X	X
SB-12	4-6	X	X			
SB-13	2-4	X	X			
SB-14	0-2	X	X	X		X
SB-15	12-14	X	X	X		X
SB-16	0-2	X	X			

Sample Location	Depth (ft.)	VOCs/ BTEX	PAHs	TPH	PCBs	RCRA metals
SB-17	16-18	X	X	X		X
SB-18	4-6	X	X	X		X

3.4 Test Excavations

Test pits were excavated in the area of three identified geophysical anomalies: i) apparent UST in Survey Area #3 (auto repair northeast), ii) apparent UST in Survey Area #6 (Bonded Station west) and iii) buried concrete structure in Survey Area #7 (auto repair and painting).

Test pits were excavated on July 23, 2020 by MVM Inc. (an ATC subcontractor) under the supervision of an ATC geologist. Soils were excavated to expose the top and lateral extent of buried USTs/structures. Deeper excavation was performed along one side of each exposed UST/structure to determine the depth of the UST/structure and to facilitate collection of a representative soil sample proximal to the bottom of the UST/structure.

Three samples were collected ("Tank #1", "Tank #2" and "Anomaly") and submitted to ALS under chain-of-custody controls and analyzed for VOCs, PAHs, TPH, PCBs and RCRA metals by the methods referenced above.

3.5 Groundwater Sampling and Analysis

Small diameter monitoring wells were installed in twelve of the borings upon completion. One-inch diameter PVC well casing and screen were installed into each borehole. Ten feet of slotted screen with pre-packed quartz sand in the annular space was installed across the water table in each boring. Wells were installed to depths between 16 and 32 feet bgs. The remainder of the well consisted of solid casing with a bentonite seal filling the annular space to approximately one foot below grade. A flush-to-grade protective vault was placed above the casing. A well cap with a keyed lock was placed at the top of each well to limit access to the well. Well construction diagrams are included with the boring logs in Appendix C.

Monitoring well elevations were surveyed against an arbitrary benchmark using a self-leveling, rotary laser level mounted on a tripod and a survey rod equipped with a remote laser sensor. Elevation measurements were recorded to the nearest hundredth of a foot. Top-of-casing measurements were recorded for each monitoring well using the north side of the casing as a point of reference. Gauging of static water levels was performed on July 21 and July 23, 2020 using an electronic water level indicator which measures the depth to groundwater to the nearest one-hundredth of a foot.

Drilling in unconsolidated materials (particularly silt and clay-rich sediments) typically results in a "smearing" of the sides of the borings. This smearing reduces the natural permeability of sediments drilled. Well development is the process by which these artificially induced changes in natural permeability are reduced. Newly installed monitoring wells were developed after installation by vigorous surging followed by bailing. This "surge and purge" method has been found to be effective in the development of monitoring wells to promote a good hydraulic connection between the well and the monitored hydrostratigraphic unit. Monitoring wells were developed on July 21, 2020. Monitoring well development logs are included in Appendix D.

Groundwater sampling was conducted using low-flow sampling techniques which are designed to obtain samples that provide an accurate representation of groundwater conditions with minimal disturbance to the aquifer/hydrostratigraphic unit being sampled. Groundwater quality indicator parameters were monitored during the purging process until readings stabilized, at which point a sample was collected. Parameters included temperature, pH, and conductivity, dissolved oxygen and oxidation/reduction potential. A stainless steel submersible variable speed Monsoon pump was utilized to obtain groundwater samples. The pump was decontaminated between sampling locations with an Alconox solution and distilled water rinse. Disposable polyethylene tubing was also used and changed out between each well. Groundwater sampling data is included in Appendix D.

Groundwater samples to be analyzed were collected in laboratory-supplied containers and immediately placed on ice in a cooler. Sterile nitrile gloves were worn during sampling and changed between wells to prevent possible cross-contamination of samples. Monitoring well MW-10 did not produce sufficient water for collection of a sample.

Groundwater samples were submitted to ALS under chain-of-custody controls and analyzed for VOCs, PAHs and/or RCRA metals by the methods referenced above.

3.6 Soil Vapor Sampling and Analysis

Nine vapor pins® were installed at the Property on July 16, 2020. Three vapor pins were installed in the area of each of three *RECs* (locations shown in Figure 3). Each sub-slab soil vapor probe was installed using a hammer drill with a 5/8 inch diameter bit. A vapor pin was installed in each core in the concrete. Each vapor pin consisted of a stainless steel probe approximately three inches long equipped with a dedicated silicone sleeve.

Each vapor pin was driven into the concrete hole with the silicone sleeve forming a tight seal, preventing ambient air from passing into the sampling area beneath the slab. Prior to sample collection, leak testing was performed at each location to ensure the integrity of the seal for each pin. Evidence of leakage was not noted at any of the locations.

A length of laboratory-supplied tubing was attached to the exposed barbed end of the vapor pin pressure gauge and quick-seal apparatus to facilitate sample collection. Each soil vapor sample was collected using dedicated sampling equipment into a laboratory-supplied evacuated summa canister fitted with a quick-seal tip. Each sample was collected by monitoring the pressure gauge for change from approximately 30 to 5 inches of mercury.

Two ambient air samples (one indoor sample and one outdoor sample) were collected simultaneous with the sub-slab samples as a QA/QC measure. The samples were collected at floor level using laboratory-supplied evacuated summa canisters identical to those described above. The outside sample was placed in the courtyard area located in the western portion of the IRS building. Sample locations are shown in Figure 3. Soil gas/air sampling logs are included in Appendix E.

Samples were submitted under chain-of-custody controls to ALS and analyzed for VOCs by Method TO-15. At the completion of sampling activities, the vapor pin was removed and the holes sealed with a concrete patch.

3.7 Investigation-Derived Waste

Soil cuttings were not generated from the direct-push borings. Purged groundwater from well development was collected into one steel 55-gallon drum and temporarily stored on-site. The drum will be removed as soon as practicable, upon acceptance of a waste profile by a licensed disposal facility. This process is underway; we anticipate waste removal within a few weeks. Disposal documentation will be issued as an addendum to this report.

4.0 FINDINGS

4.1 Property-Specific Geology

Surface cover consisted of asphalt pavement or topsoil/grass. Underlying materials consisted of 0.5 to 10 feet of fill material. One boring (SB-16) did not encounter fill material. Shallow fill material generally consisted of sand with gravel and some building debris. Clay immediately underlying the sandy fill often contained building debris in the upper two or three feet. Building debris consisted largely of brick and concrete. Building debris was present in borings SB-1, SB-3, SB-7, SB-9, SB-10 and SB-11. Dark colored fill observed in boring SB-14 was likely due to overlying asphalt cover. Black-stained sandy clay noted in SB-3 (8-10' deep) exhibited a sewage-like odor.

Native soils below the fill consist of silty sandy clay to depths greater than 28 feet. Thick deposits of sand were encountered at three locations: i) SB-8, 2-10', ii) SB-15, 0.5-14', and iii) SB-18, 6-16'. The sand encountered in boring SB-15 appears to be an isolated body. It is not clear whether the sand deposits noted in borings SB-8 and SB-18 represent a continuous layer or are isolated bodies. Given that boring SB-8 is located at a former service station the sand may represent a former tank cavity.

Boring logs are included in Appendix C.

4.2 Applicable or Relevant and Appropriate Requirements (ARARs)

Soil and groundwater analytical data were compared to U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for residential and commercial/industrial exposure scenarios as applicable or relevant and appropriate requirements (ARARs). RSLs provide comparison values for both residential and commercial/industrial exposures to soil, air, and tap water (drinking water) for all USEPA regions. RLSs are used during initial investigation of sites to determine if conditions quantified warrant further investigation/remediation.

Kentucky Division of Waste Management (KDWM) recognizes that metals in soils are naturally occurring and that risk from metals impact cannot be reduced below that associated with background concentrations. KDWM has established state-wide background

concentrations for select metals including arsenic. KDWM utilizes a range of 8 to 25 mg/kg for background arsenic. Kentucky background was used to evaluate arsenic quantified in soil samples.

The U.S. EPA OSWER Vapor Intrusion Screening Level (VISL) calculator (accessed on-line July 20, 2020)[1] was used to evaluate sub-slab soil gas and ambient indoor air data relative to an acceptable risk at the point of exposure. The VISL calculator uses a conservative mathematical exposure model to calculate a screening value for evaluation of VOC concentrations in soil gas. The VISL calculator was used to determine residential and commercial screening levels for each VOC quantified based on a carcinogenic risk (CR) of 1E-05 and a non-carcinogenic hazard quotient (HQ) of 1.

4.3 Test Excavation Findings

Excavation of the anomaly in the northeast portion of the Property uncovered an approximately 1,000-gallon steel UST that appeared to contain water. Apparent impact associated with the UST was not noted.

Excavation of the anomaly in the southwest portion of the Property uncovered two adjacent steel USTs: one approximately 1,000-gallon UST and one approximately 2,000-gallon UST. The contents of the USTs were not apparent. Obvious physical evidence of impact associated with the USTs was not observed.

Excavation of the apparent vault located in the northwest portion of the Property identified a concrete structure of approximately 3,000-gallon capacity. The vault contained sludge.

Photographic documentation of test pit excavation is included in Appendix F.

4.4 Soil Conditions

Physical evidence of environmental impact (black coloration) was apparent at two locations (SB-3, 8-10' and SB-14, 0-2') in shallow soils. Dark colored soils observed in boring SB-14 was likely due to overlying asphalt cover. Soils from SB-3 (8-10') had

[1] https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-level-calculator

"sewage-like" odor. Elevated PID readings were not recorded in samples from any of the borings (maximum of 7.5 parts per million in SB-14, 0-2'). Boring logs are included in Appendix C. Obvious physical evidence of impact was not observed in soils during excavation of the three test pits.

Four VOCs were quantified above detection limits in sample SB-14 (0-2') with a maximum concentration of 0.049 mg/kg xylenes. One VOC (tetrachloroethene) was detected in sample SB-17 (16-18') at a concentration 0.055 mg/kg. VOCs were not detected in any other soil sample analyzed. VOCs were not quantified at concentrations above RSLs.

Between one and sixteen PAHs were detected in four soil samples (SB-3 [8-10'], SB-10 [6-8'], SB-14 [0-2'] and Tank #2 excavation. The highest single PAH concentration quantified was 6.7 mg/kg pyrene in sample SB-10 (6-8'). Five PAHs detected in three samples (SB-10 [6-8'], SB-14 [0-2'] and Tank #2) were quantified above residential RSLs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h] anthracene and indeno[1,2,3-cd]pyrene). Only one PAH (benzo[a]pyrene) from sample SB-10 (6-8') was quantified above commercial land use RSLs.

KDWM recommends standardizing the toxicity of carcinogenic PAHs (cPAHs)[2] in terms of benzo(a)pyrene (B[a]P) equivalents. The benzo(a)pyrene equivalent is calculated by weighting each individual cPAH in a sample using a toxicity equivalency factor (TEF) that expresses toxicity relative to benzo(a)pyrene (see Appendix F). The adjusted toxicities for each cPAH are then added together to determine the total toxicity of cPAHs in a sample in terms of the toxicity of benzo(a)pyrene. Toxicity equivalents were evaluated for the three soil samples which had more than one detected PAH. Detection limits were included in the calculations at their face values. The results of such calculations are summarized below and documented in Appendix G.

Material Type	95% UCL Total B(a)P Equivalents
SB-10 (6-8'), radiator service	6.4
SB-14 (0-2'), sheet metal works	1.2
Tank #2 (7'), Bonded Station west	1.2

[2] Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene

B(a)P Residential RSL	0.11
B(a)P Commercial/Industrial RSL	2.1

Resulting benzo(a)pyrene toxicity equivalents mirror the evaluation of single PAHs. All three samples exceed the ARAR for a residential exposure scenario but only sample SB-10 (6-8') exceeds for a commercial exposure scenario.

TPH gasoline range organics (GRO, C_6-C_{12}) was quantified in one soil sample (Tank #2) at a concentration of 2.3 mg/kg. TPH diesel range organics (DRO, C_{10}-C_{20}) was detected in four soil samples. TPH oil range organics (ORO, C_{20}-C_{34}) was quantified in thirteen soil samples. The maximum concentrations of DRO and ORO were quantified in the soil sample from Tank #2 (41 mg/kg and 520 mg/kg, respectively). TPH concentrations quantified did not exceed RSLs[3].

PCBs (Arochlor 1260) were detected in one of the five soil samples analyzed at a concentration of 0.14 mg/kg SB-11 (4-6'). PCBs were not quantified at concentrations above RSLs.

One to five RCRA metals (arsenic, barium, chromium, lead and/or mercury) were detected in each soil sample analyzed. The highest concentrations of each metal detected were 16 mg/kg arsenic (SB-11, 4-6'), 110 mg/kg barium (SB-11, 4-6'), 23 mg/kg chromium (SB-1, 10-12'), 140 mg/kg lead (SB-11, 4-6') and 1.3 mg/kg mercury (SB-3, 8-10'). Concentrations of RCRA metals quantified did not exceed RSLs/background.

Soil analytical results are summarized in Table 2 and shown spatially in Figure 4. Soil sample laboratory reports are included in Appendix H.

4.5 Groundwater Conditions

Saturated conditions were encountered between approximately 12 and 26 feet bgs. Depth to water in installed wells ranged between approximately 12 and 24 feet below top of casing. Top of casing elevations and gauge data were utilized to determine groundwater

[3] TPH carbon ranges included in laboratory analytical do not correspond exactly with TPH categories used in RSLs. The most conservative RSLs categories that approximately correspond to laboratory ranges were used as ARARs.

elevations at each well. Such data was plotted on a map and contoured to create a potentiometric surface map and determine groundwater flow direction for groundwater beneath the Property.

The water level in MW-11 appears to be anomalous compared to nearby wells (i.e., approximately 6 feet higher than MW-12). Well logs indicate that water level in MW-11 approximates the bottom of a shallow sand deposit and likely represents perched water. Accordingly, MW-11 was not used to construct the groundwater flow map. Groundwater was determined to be flowing towards the north towards the Ohio River. Hydrogeologic measurement documentation is included in Appendix D and summarized in Table 3. A potentiometric surface map is provided as Figure 5.

Tetrachloroethene (PCE) and trichloroethene (TCE) were quantified in sample MW-12/SB-17) at concentrations of 190 µg/L and 11 µg/L, respectively. Concentrations of both VOCs exceed their respective RSLs of 11 µg/L and 0.49 µg/L, respectively.

Between one and eight PAHs were detected in ten of the twelve groundwater samples analyzed. The highest PAH concentration quantified was 1.6 µg/L carbazole from sample MW-8/SB-8. Naphthalene concentrations in wells MW-5/SB-5 and MW-8/SB-8 (0.28 µg/L and 0.94 µg/L, respectively) were above the RSL of 0.12 µg/L.

Five to six metals (arsenic, barium, cadmium, chromium, lead and/or mercury) were detected in the three groundwater samples analyzed. The highest concentrations of each metal detected were 55 µg/L arsenic (MW-12/SB-17), 650 µg/L barium (MW-5/SB-5), 14 µg/L cadmium (MW-5/SB-5), 170 µg/L chromium (MW-5/SB-5), 160 µg/L lead (MW-12/SB-17) and 0.34 µg/L mercury (MW-5/SB-5). Concentrations of arsenic and lead were detected in all three groundwater samples analyzed for metals above the RSLs of 0.052 µg/L and 15 µg/L, respectively. Cadmium was detected above the RSL of 9.2 µg/L in sample MW-5/SB-5. An RSL is not available for total chromium. Chromium concentrations were compared to the USEPA drinking water Maximum Contaminant Level (MCL) of 100 µg/L. Chromium quantified in sample MW-5/SB-5 exceeded the MCL.

Groundwater analytical results are summarized in Table 3 and shown spatially in Figure 4. The laboratory report is included in Appendix H.

4.6 Soil Vapor and Ambient Air Conditions

A total of eighteen VOCs were quantified in one or more of the nine soil gas samples analyzed. Five VOCs (acetone, naphthalene, 2-propanol, toluene and xylenes) were detected in all nine soil gas samples. Acetone and toluene were quantified at the highest concentrations (maximum of 385 and 129 micrograms per cubic meter [µg/m^3], respectively).

Five VOCs were detected in the indoor ambient air sample. The highest concentration was acetone at 16.1 µg/m^3. Two VOCs (acetone and chloromethane) were detected in the outdoor ambient air sample at concentrations of 20.6 µg/m^3 and 1.22 µg/m^3, respectively.

Maximum soil vapor concentrations were compared to residential and commercial target levels available through the U.S. EPA's Vapor Intrusion Screening Level (VISL) calculator. One COC (naphthalene) was detected in soil gas from one location (3.15 µg/m^3, SV-2) greater than the VISL residential target level of 2.75 µg/m^3. Soil vapor concentrations quantified did not exceed VISL commercial target levels.

Five VOCs were detected in the ambient indoor air sample (AA-I). Naphthalene (1.31 µg/m^3) was quantified above both the residential and commercial indoor air VISL target levels of 0.083 µg/m^3 and 0.36 µg/m^3, respectively.

Two VOCs (acetone and chloromethane) were detected in the ambient outdoor air sample (AA-O). Neither was quantified above the residential and commercial indoor air VISL target levels.

Air analytical data is summarized in Table 5. The complete laboratory report is provided in Appendix H. VISL calculation documentation is included in Appendix I.

5.0 CONCLUSIONS

Environmental conditions quantified at the Property in areas of previously identified *RECs* suggest localized areas of environmental impact (i.e., in excess of ARARs for residential and/or commercial exposure scenarios).

Soil sampling/analysis quantified three areas of PAH impact at the property above ARARs: i) former radiator service in the north-central portion of property, ii) former sheet metal works located in the east-central portion of property and iii) former Bonded Station in the west portion of property. Impacted soil at the latter location is associated with residual USTs. Given geologic conditions at the Property (relatively impermeable clay soils) and the lack of PAH impact to groundwater, such impact is likely localized.

Two VOCs (PCE and TCE) were detected in groundwater at concentrations in excess of RSLs at one location (MW-12/SB-17) in the eastern portion of the property (former electro plating operations). Although concentrations are relatively low, the presence of these compounds suggests the presence of a source area in the vicinity (either on- or off-site) from which the impact quantified in groundwater is leaching. Although PCE was detected in soils from boring SB-17, the concentration is low (0.055 mg/kg) and from soil immediately above the water table; soil impact is likely due to elevation fluctuations of impacted groundwater over time. Given the lack of VOCs detected in other wells in the vicinity, groundwater impact appears localized. Further investigation would be required to identify the source area and determine extent of impact.

Naphthalene was quantified in groundwater at concentrations slightly above RSLs at two locations in the central portion of the Property (auto repair northwest and Bonded Station east). Although groundwater is not a source of potable water in the Property vicinity, the presence of naphthalene suggests an area of soil impact from which the groundwater impact quantified is leaching (similar to the VOCs as discussed above).

Although metals impact was quantified in groundwater locally, concentrations were relatively low and suggestive of being associated with sample turbidity as opposed to indicative of significant groundwater impact. This is consistent with the lack of detection of elevated concentrations of metals in soil samples analyzed from the same locations.

Groundwater sampling/analysis in the up-gradient portion of the Property along West Fourth Street did quantify COCs in excess of ARARs and are not suggestive of potential impact from apparently up-gradient, off-Property historic service stations to the south.

Given that groundwater is not a source of potable water in the area, vapor intrusion is the primary exposure pathway of concern relative to groundwater. Groundwater data is not suggestive of conditions that would present an unacceptable health risk to building occupants at the property (existing or future) via vapor intrusion associated with the groundwater to indoor air exposure pathway.

Naphthalene in sub-slab soil gas samples did not exceed VISLs for a commercial exposure scenario. Naphthalene in one sample from the former Russell Street dry cleaner area exceeded the VISL for a residential scenario. The ambient indoor air sample contained a similar concentration of naphthalene; the concentration exceeded indoor air VISLs for both residential and commercial exposure scenarios. Given that the indoor air concentration is approximately the same as that detected in sub-slab samples such data appears anomalous and is suggestive of a source other than vapor intrusion (a substantial reduction/attenuation would be expected). Naphthalene was not detected in any soil samples analyzed. Naphthalene was detected in two groundwater samples from the central portion of the Property (0.28 µg/L at MW-5 and 0.94 µg/L at MW-8). Concentrations quantified were well below the VISL groundwater target level of 4.59 and 20.1 µg/L for residential and commercial scenarios, respectively.

The potential exists that naphthalene in indoor air originated from ambient exterior air, although naphthalene was not quantified in the ambient exterior air sample. It should be noted that the outdoor sample was collected from the courtyard area of the building which may be somewhat sheltered from surrounding traffic and potential volatilization from the asphalt parking lot and/or potentially asphaltic roofing surrounding the building which may have been drawn into the building via fresh air intakes and the HVAC system.

Conditions quantified during this assessment are not suggestive of large scale or widespread environmental impact at the Property. However, apparently localized impact is present as discussed above and should be addressed/remedied in association with Property redevelopment.

6.0 PROJECT QUALIFICATIONS

Work was performed in accordance with sound scientific principles and standard industry practice. Conditions may vary from those as quantified. However, data was collected from appropriate locations based upon available information, and should be reasonably representative of conditions in association with the *RECs* as identified. Information contained in this report is an accurate representation of our methods and findings.

This report is for the use and benefit of, and may be relied upon by the City of Covington, Graydon Head and Ritchey LLP, and/or any of their affiliates, and third parties authorized in writing by the City of Covington, Graydon Head and Ritchey LLP, and/or ATC, including any lender(s) in connection with a secured financing of the Property, and their respective successors and assigns. Any third party agrees by accepting this report that any use or reliance on this report shall be with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the Property that were not discovered within the authorized scope of the assessment. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

ATC makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

William A. Norris
Senior Project Geologist

Michael J. Luessen, P.G./C.P.
Principal Geologist

7.0 REFERENCES

United States Geological Survey, *Availability of Ground Water in Boone, Campbell, Grant, Boone and Pendleton Counties, Kentucky*. Hydrologic Investigations Atlas HA-15, dated 1960.

United States Geological Survey, 7½ Minute Quadrangle Topographic Map, Covington, Kentucky-Ohio, 1961, photorevised 1981.

United States Geological Survey, *Geologic Map of Part of the Covington Quadrangle, Northern Kentucky,* Map GQ-955, 1971.

LIST OF ATTACHMENTS

FIGURES

TABLES

APPENDIX A

Personnel Resumes

APPENDIX B

Geophysical Survey Report

APPENDIX C

Soil Boring / Monitoring Well Logs

APPENDIX D

Well Development / Sampling Forms

APPENDIX E

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APPENDIX F

Test Excavation Documentation

APPENDIX G

Benzo(a)pyrene Toxicity Equivalents Calculation Documentation

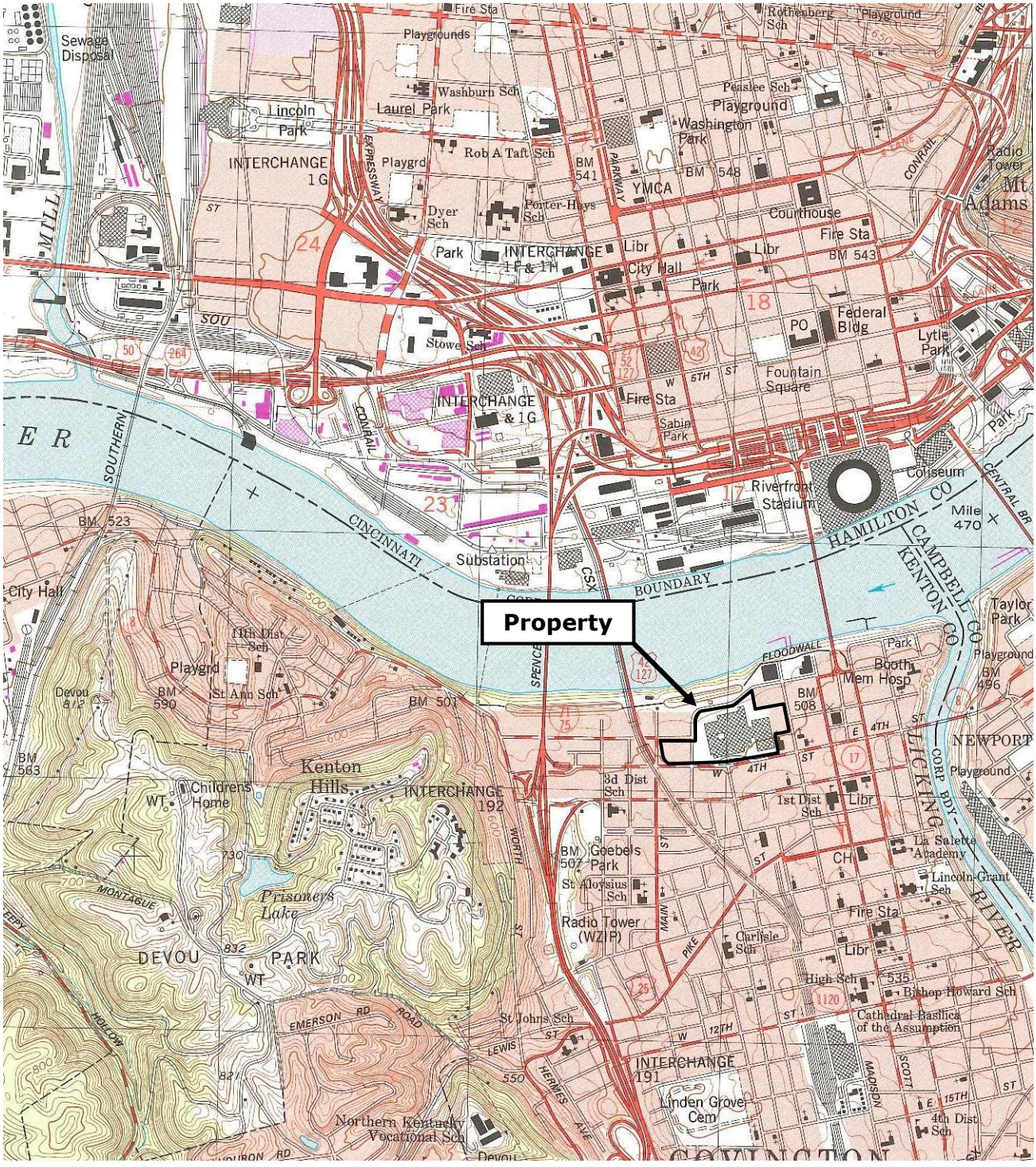
APPENDIX H

Laboratory Reports

APPENDIX I

VISL Documentation

FIGURES



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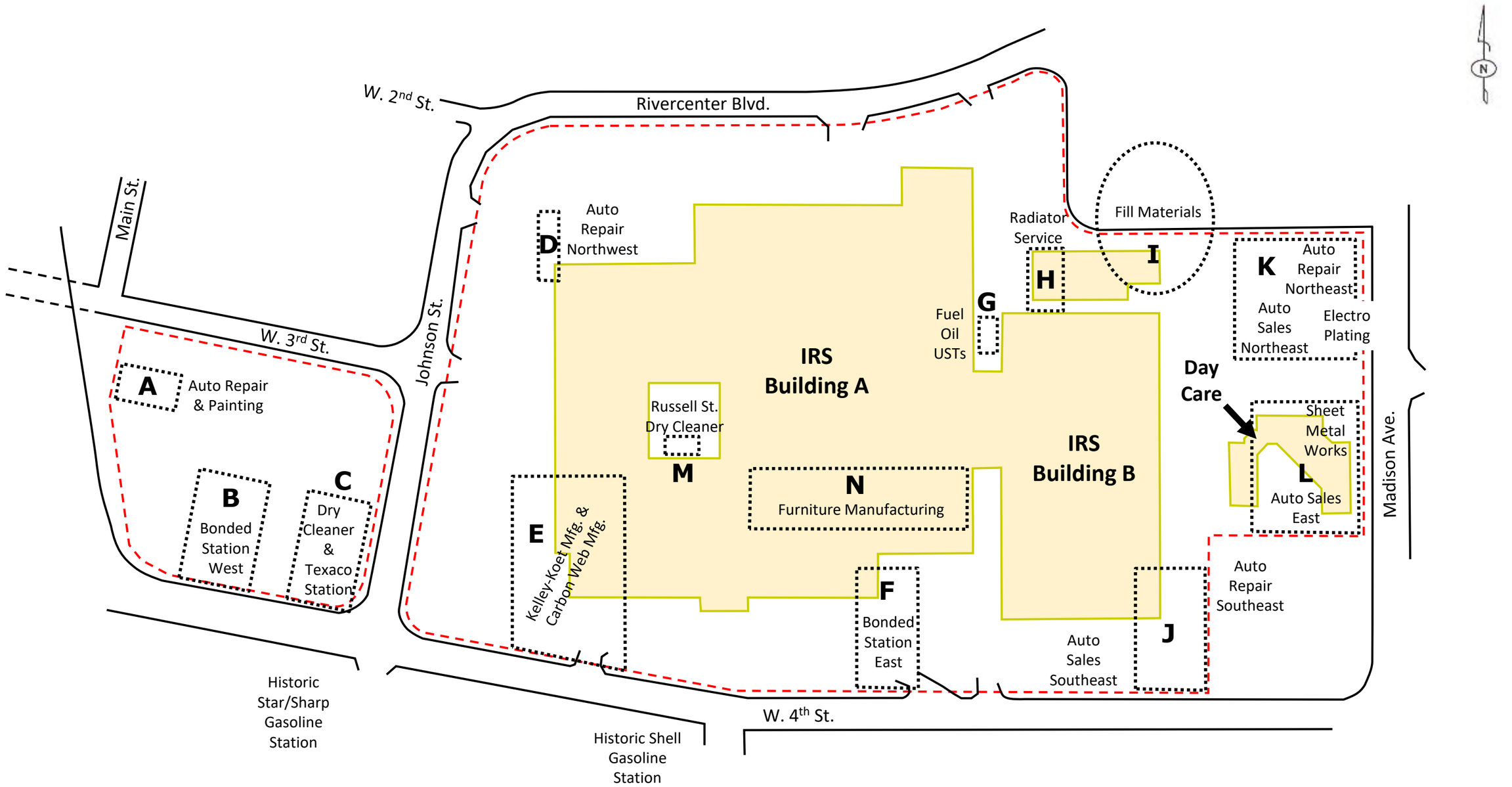
Cincinnati, Ohio
45241
(513) 771-2112

Source: USGS 7.5 Minute Series Topographic Map of Covington, KY-OH Quadrangle, 1981, photorevised 1987.

Project No: 241EN000715		Date: 7-9-2020
Drawn By: WAN	Reviewed By: ML	Scale: 1" ~ 2000'

FIGURE 1
PROPERTY VICINITY MAP
Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kentucky 41011



LEGEND

- A — Historic Area of Concern
- Property boundary
- Existing building

UST: Underground Storage Tank

FIGURE 2 – PROPERTY PLAN
Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kenton County, Kentucky

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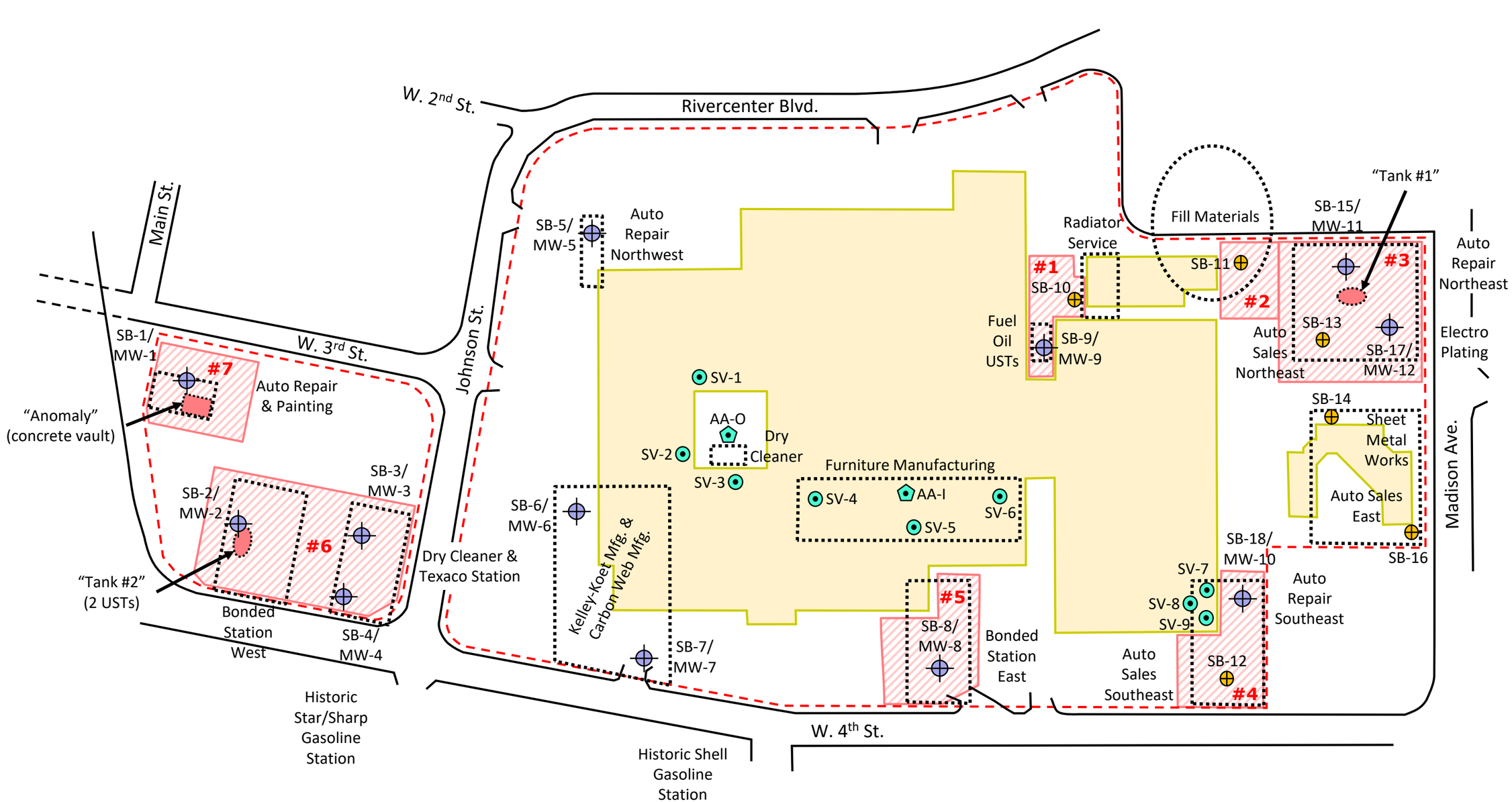

LEGEND

- Historic Area of Concern
- Property boundary
- Existing building
- #6 Geophysical Survey
- Sub-Slab Vapor Pin
- Ambient Air Sample
- Soil Boring
- Boring with Monitoring Well
- Geophysical Anomaly

UST: Underground Storage Tank

FIGURE 3 – SAMPLE LOCATION MAP
Phase II Environmental Site Assessment
Former Internal Revenue Service Property
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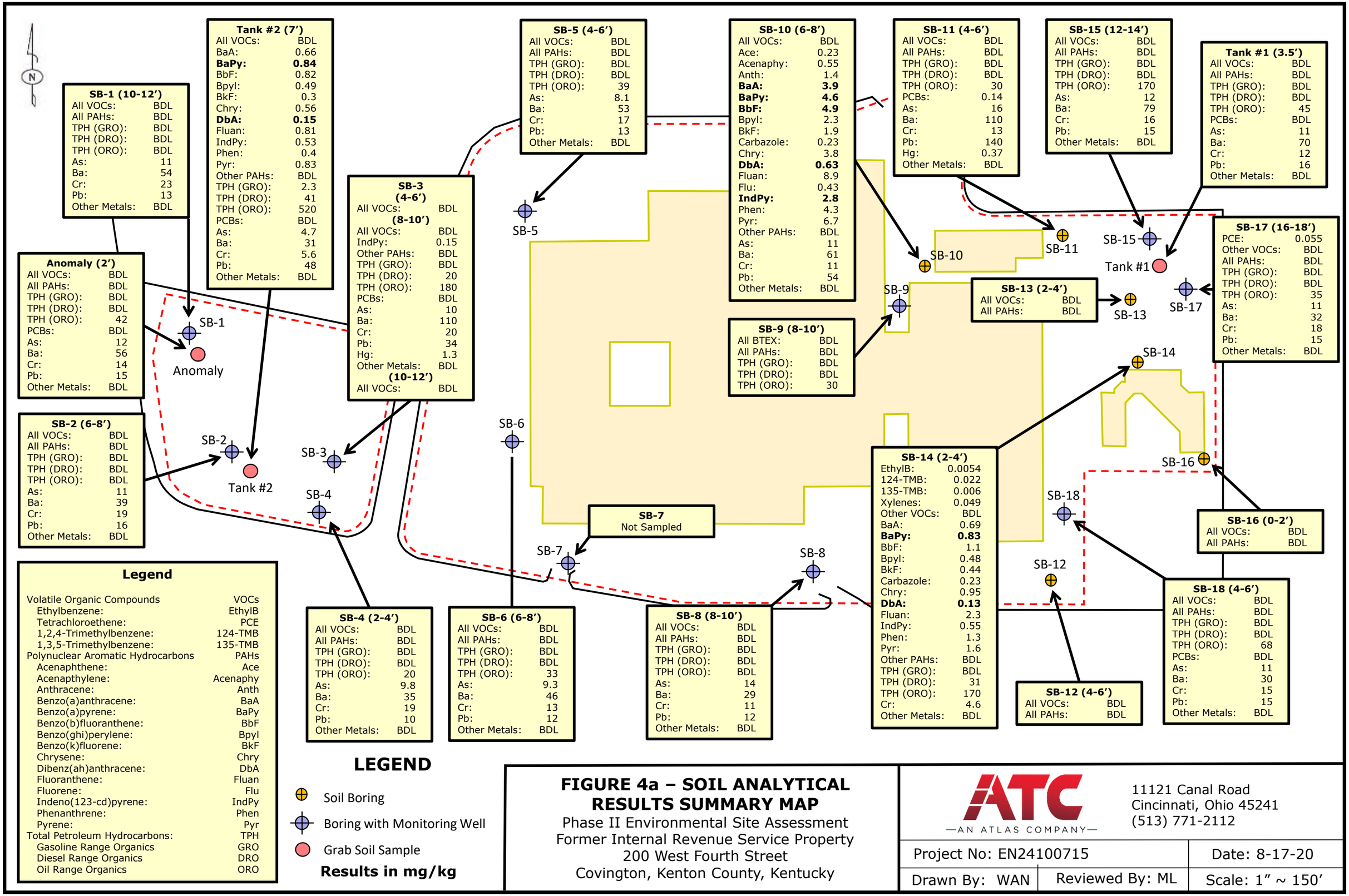

FIGURE 4a – SOIL ANALYTICAL RESULTS SUMMARY MAP

Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kenton County, Kentucky

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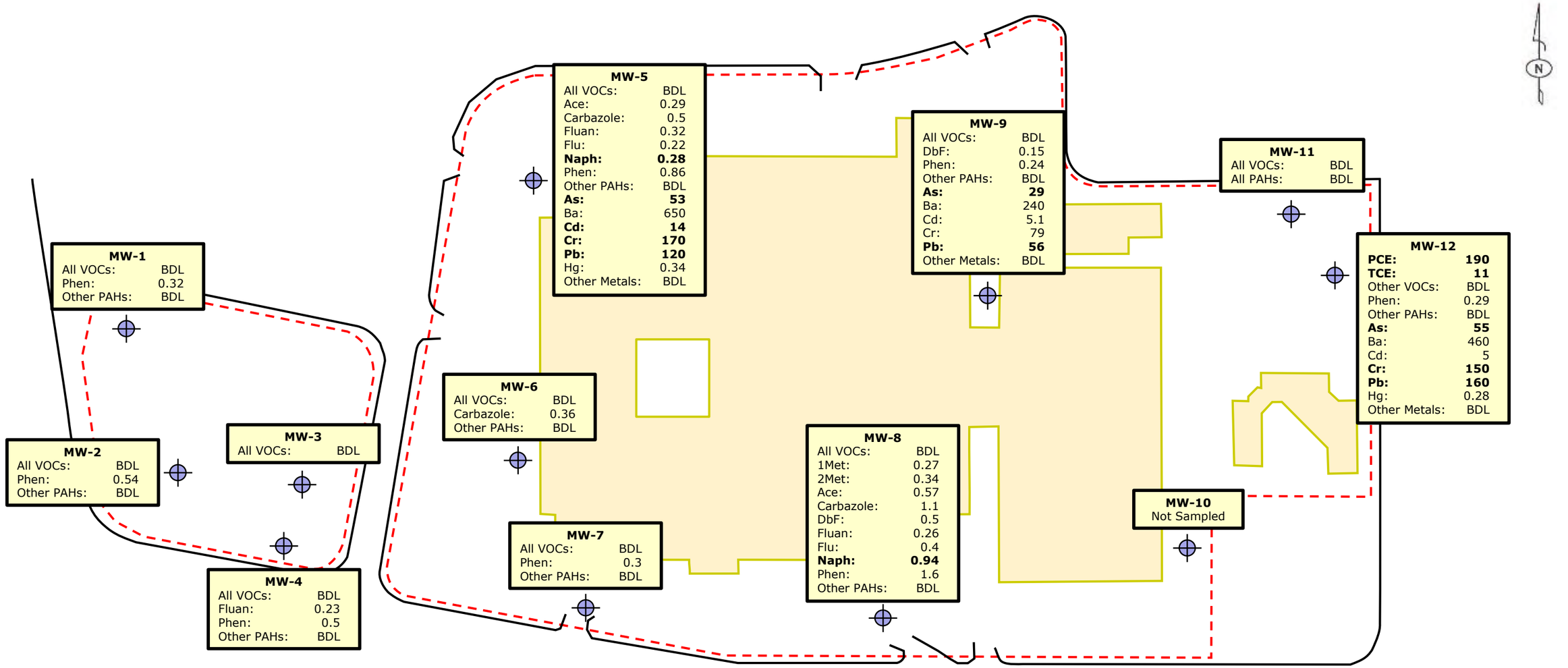
Project No: EN24100715 | Date: 8-17-20
Drawn By: WAN | Reviewed By: ML | Scale: 1" ~ 150'



Legend

Volatile Organic Compounds	VOCs
Tetrachloroethene:	PCE
Trichloroethene:	TCE
Polynuclear Aromatic Hydrocarbons	PAHs
1-Mehylnaphthylene:	1Met
2-Mehylnaphthylene:	2Met
Acenaphthene:	Ace
Dibenzofuran:	DbF
Fluoranthene:	Fluan
Fluorene:	Flu
Naphthalene:	Naph
Phenanthrene:	Phen1

Property boundary

Existing building

Monitoring Well

Results in µg/L

FIGURE 4b – GROUNDWATER ANALYTICAL RESULTS SUMMARY MAP

Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kenton County, Kentucky

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Project No: EN24100715		Date: 8-17-20
Drawn By: WAN	Reviewed By: ML	Scale: 1” ~ 150’

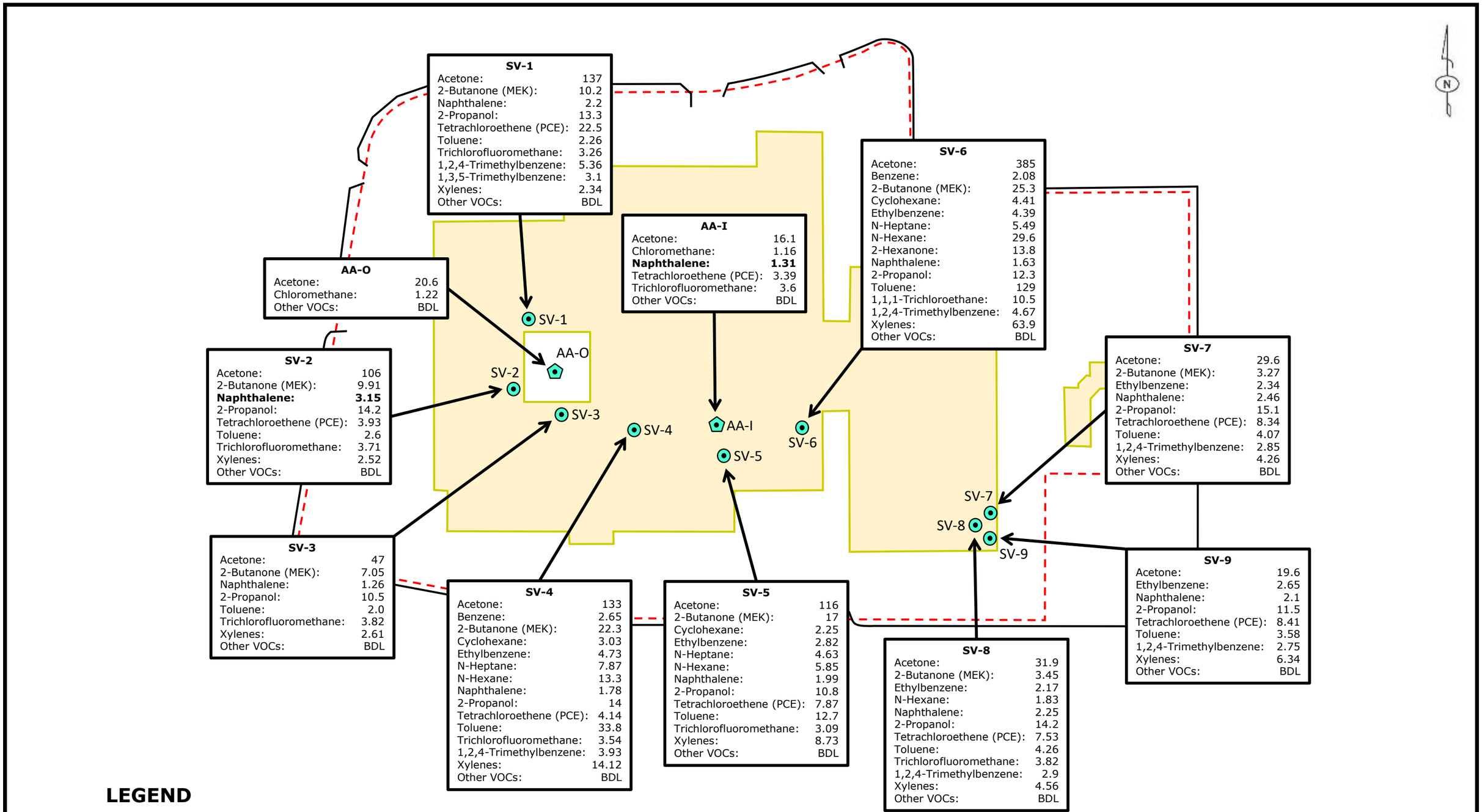

FIGURE 4c – SOIL VAPOR & AMBIENT AIR ANALYTICAL RESULTS SUMMARY MAP

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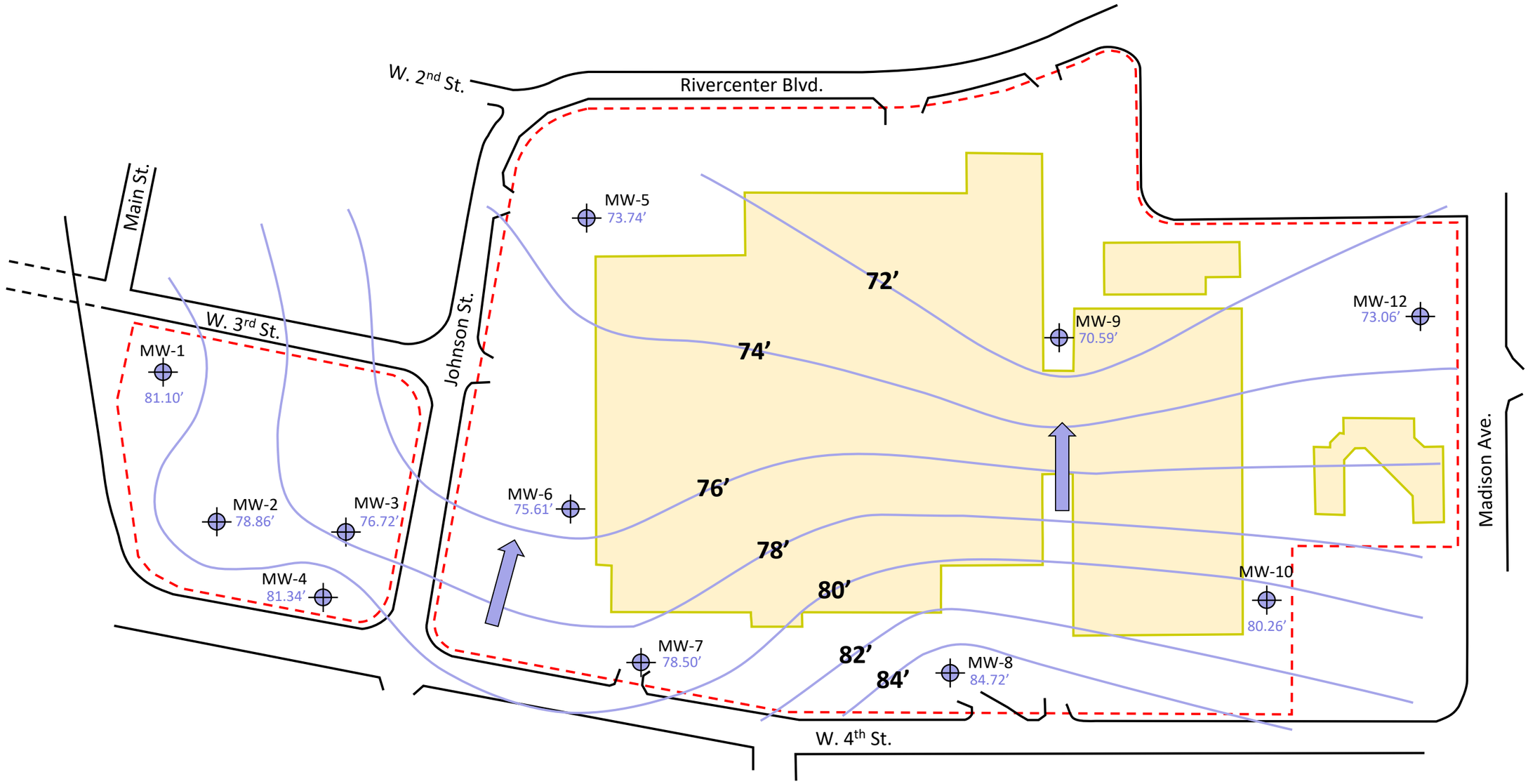
Drawn By: WAN	Reviewed By: ML	Scale: 1” ~ 150’



LEGEND

MW-4
68.77'
Monitoring Well Location and Groundwater Elevation

58' Groundwater Contour

Groundwater Flow Direction

FIGURE 5 – GROUNDWATER POTENIOMETRIC SURFACE MAP (JULY 21, 2020)
Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kenton County, Kentucky

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(513) 771-2112

Project No: EN24100715		Date: 8-13-20
Drawn By: WAN	Reviewed By: ML	Scale: 1" ~ 150'

TABLES

TABLE 1 - Analytical Testing Plan

Former Internal Revenue Service Property

200 West Fourth Street, Covington, KY

Area ID	Recognized Environmental Condition (REC)	Sample ID	VOCs (8260)			BTEX (8260)	PAHs (8270)		TPH (8015)	PCBs (8082)	RCRA Metals (6010/7471)	
			Soil	Ground Water	Soil Vapor	Soil	Soil	Ground Water	Soil	Soil	Soil	Ground Water
A	Auto Repair / Painting	SB-1 / MW-1	X	X			X	X	X		X	
B	Bonded Station West	SB-2 / MW-2	X	X			X	X	X		X	
C	West 4th St. Dry Cleaner	SB-3 / MW-3	X	X								
	Texaco Station / Star Station (off-site)	SB-4 / MW-4	X	X			X	X	X		X	
D	Auto Repair NW	SB-5 / MW-5	X	X			X	X	X		X	
E	Kelly-Koet Mfg. / Carbon Web Mfg.	SB-6 / MW-6	X	X			X	X	X		X	
	Shell Station (off-site)	SB-7 / MW-7		X				X				
F	Bonded Station East	SB-8 / MW-8	X				X		X		X	
G	Former Fuel Oil USTs	SB-9 / MW-9		X		X	X	X	X			X
H	Radiator Service	SB-10	X				X				X	
I	Fill Materials	SB-11	X				X		X	X	X	
J	Auto Sales Southeast	SB-12	X				X					
	Auto Repair Southeast	SB-18 / MW-10, SV 1 to SV-3	X	X	X		X	X	X		X	
K	Auto Sales Northeast	SB-13	X				X					
	Auto Repair Northeast	SB-15 / MW-11	X	X			X	X	X		X	
	Electro Plating	SB-17 / MW-12	X	X			X	X	X		X	X
L	Sheet Metal Works	SB-14	X				X		X		X	
	Auto Sales East	SB-16	X				X					
M	Former Russell St. Dry Cleaner	SV-1 to SV-3			X							
N	Former Furniture Manufacturing	SV-4 to SV-6			X							

BTEX: benzene, toluene, ethylbenzene, xylenes

PAH: polynuclear aromatic hydrocarbons

PCBs: polychlorinated biphenyls

TPH: total petroleum hydrocarbons

VOCs: volatile organic compounds

TABLE 2 - Soil Analytical Results Summary

Former Internal Revenue Service Property
200 West Fourth Street, Covington, KY
(results given in mg/kg)

Boring ID		Regional Screening Levels (RSLs) May 2020		Range of Background (KDEP)	SB-01	Anomaly	SB-02	Tank #2	SB-03			SB-04	SB-05	SB-06	SB-08
Depth (feet)					10-12	1' 10"	6-8	6' 11"	4-6	8-10	10-12	2-4	4-6	6-8	8-10
Date					7/20/20	7/23/20	7/20/20	7/23/20	7/20/20			7/20/20	7/16/20	7/16/20	7/20/20
Location		Resident Soil	Industrial Soil		Auto Repair / Painting		Bonded Station West		W. 4th Street Dry Cleaner			Texaco Station	Auto Repair Northwest	Kelly-Koet/ Carbon Web Mfg.	Bonded Station East
PID (ppm)					1.9		3.8		3.3	3.4	4.9	4.5	2.6	4.1	1.2
VOCs	Benzene	1.2	5.1	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	Ethylbenzene	5.8	25	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	Tetrachloroethene	24	100	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	Toluene	4,900	47,000	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	1,2,4-Trimethylbenzene	300	1,800	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	1,3,5-Trimethylbenzene	270	1,500	---	<0.0063	<0.0061	<0.0061	<0.0056	<0.0058	<0.0063	<0.0062	<0.0061	<0.006	<0.0062	<0.0061
	Xylenes, total	580	2,500	---	<0.019	<0.018	<0.018	<0.017	<0.017	<0.019	<0.018	<0.018	<0.018	<0.019	<0.018
	All Other VOCs	---	---	---	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Polynuclear Aromatic Hydrocarbons (PAHs)	1-Methylnaphthalene	18	73	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	2-Methylnaphthalene	240	3,000	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Acenaphthene	3,600	45,000	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Acenaphthylene	---	---	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Anthracene	18,000	230,000	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Benzo(a)anthracene	1.1	21	---	<0.13	<0.12	<0.12	0.66		<0.13		<0.12	<0.12	<0.12	<0.12
	Benzo(a)pyrene	0.11	2.1	---	<0.13	<0.12	<0.12	**0.84**		<0.13		<0.12	<0.12	<0.12	<0.12
	Benzo(b)fluoranthene	1.1	21	---	<0.25	<0.24	<0.24	0.82		<0.25		<0.24	<0.24	<0.25	<0.24
	Benzo(g,h,i)perylene	---	---	---	<0.25	<0.24	<0.24	0.49		<0.25		<0.24	<0.24	<0.25	<0.24
	Benzo(k)fluoranthene	11	210	---	<0.25	<0.24	<0.24	0.3		<0.25		<0.24	<0.24	<0.25	<0.24
	Carbazole	---	---	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Chrysene	110	2,100	---	<0.25	<0.24	<0.24	0.56		<0.25		<0.24	<0.24	<0.25	<0.24
	Dibenz(a,h)anthracene	0.11	2.1	---	<0.13	<0.12	<0.12	**0.15**		<0.13		<0.12	<0.12	<0.12	<0.12
	Dibenzofuran	78	1,200	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Fluoranthene	2,400	30,000	---	<0.25	<0.24	<0.24	0.81		<0.25		<0.24	<0.24	<0.25	<0.24
	Fluorene	2,400	30,000	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Indeno(1,2,3-cd)pyrene	1.1	21	---	<0.13	<0.12	<0.12	0.53		0.15		<0.12	<0.12	<0.12	<0.12
	Naphthalene	2	8.6	---	<0.25	<0.24	<0.24	<0.22		<0.25		<0.24	<0.24	<0.25	<0.24
	Phenanthrene	---	---	---	<0.25	<0.24	<0.24	0.4		<0.25		<0.24	<0.24	<0.25	<0.24
	Pyrene	1,800	23,000	---	<0.25	<0.24	<0.24	0.83		<0.25		<0.24	<0.24	<0.25	<0.24
TPH [1]	Gasoline Range (C6-C12)	82 [1]	420 [1]	---	<2.5	<2.4	<2.4	2.3		<2.5		<2.4	<2.4	<2.5	<2.4
	Diesel Range (C10-C20)	96 [1]	440 [1]		<19	<18	<18	41		20		<18	<18	<19	<18
	Oil Range (C20-C34)	230000 [1]	3500000 [1]	---	<19	42	<18	520		180		20	39	33	<18
PCBs	Arochlor 1260	0.24	0.99	---		<0.12		<0.11		<0.13					
	All Other PCBs	---	---	---		BDL		BDL		BDL					
RCRA Metals	Arsenic	0.68	3	8-25	11	12	11	4.7		10		9.8	8.1	9.3	14
	Barium	15,000	220,000	---	54	56	39	31		110		35	53	46	29
	Cadmium	71	980	---	<1.1	<0.91	<0.88	<0.87		<1.1		<0.88	<0.95	<0.84	<0.93
	Chromium, Total *	120,000	1,800,000	---	23	14	19	5.6		20		19	17	13	11
	Lead	400	800	---	13	15	16	48		34		10	13	12	12
	Mercury	11	46	---	<0.29	<0.31	<0.33	<0.33		1.3		<0.33	<0.33	<0.29	<0.34
	Selenium	390	5,800	---	<3.3	<2.7	<2.6	<2.6		<3.2		<2.6	<2.9	<2.5	<2.8
	Silver	390	5,800	---	<1.1	<0.91	<0.88	<0.87		<1.1		<0.88	<0.95	<0.84	<0.93

BDL	Below laboratory detection limit
PCBs	Polychlorinated Biphenyls
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
##	Detected value
BOLD	Above resident soil RSL
BOLD	Detected above industrial soil RSL
*	Assumes all Chromium is Chromium III

1 - TPH carbon ranges included in laboratory analytical do not correspond exactly with TPH categories used in RSLs. RSLs divide TPH into aromatics and aliphatics which are further divided into low, medium and high carbon ranges. The most conservative RSLs from each range category (low, medium, high) were assigned to the three laboratory ranges. However, the RSLs should be considered tentative/approximate values for comparative purposes.

TABLE 2 - Soil Analytical Results Summary (page 2)
Former Internal Revenue Service Property
200 West Fourth Street, Covington, KY
(results given in mg/kg)

Boring ID		Regional Screening Levels (RSLs) May 2020		Range of Background (KDEP)	SB-09	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	Tank #1	SB-16	SB-17	SB-18
Depth (feet)					8-10	6-8	4-6	4-6	2-4	0-2	12-14	3.5	0-2	16-18	4-6
Date					7/16/20	7/16/20	7/16/20	7/17/20	7/16/20	7/16/20	7/16/20	7/23/20	7/16/20	7/16/20	7/17/20
Location		Resident Soil	Industrial Soil		Former Fuel Oil USTs	Radiator Service	Fill Materials	Auto Sales Southeast	Auto Sales Northeast	Sheet Metal Works	Auto Repair Northeast		Auto Sales East	Electro Plating	Auto Repair Southeast
PID (ppm)					4.0	2.1	3.2	6.3	2.8	7.5	4.3		1.7	2.1	5.3
VOCs	Benzene	1.2	5.1	---	<0.0061	<0.0057	<0.0062	<0.0061	<0.0061	<0.0052	<0.006	<0.006	<0.0057	<0.0063	<0.0063
	Ethylbenzene	5.8	25	---	<0.0061	<0.0057	<0.0062	<0.0061	<0.0061	0.0054	<0.006	<0.006	<0.0057	<0.0063	<0.0063
	Tetrachloroethene	24	100	---		<0.0057	<0.0062	<0.0061	<0.0061	<0.0052	<0.006	<0.006	<0.0057	0.055	<0.0063
	Toluene	4,900	47,000	---	<0.0061	<0.0057	<0.0062	<0.0061	<0.0061	<0.0052	<0.006	<0.006	<0.0057	<0.0063	<0.0063
	1,2,4-Trimethylbenzene	300	1,800	---		<0.0057	<0.0062	<0.0061	<0.0061	0.022	<0.006	<0.006	<0.0057	<0.0063	<0.0063
	1,3,5-Trimethylbenzene	270	1,500	---		<0.0057	<0.0062	<0.0061	<0.0061	0.006	<0.006	<0.006	<0.0057	<0.0063	<0.0063
	Xylenes, total	580	2,500	---	<0.012	<0.017	<0.019	<0.018	<0.018	0.049	<0.018	<0.018	<0.017	<0.019	<0.019
	All Other VOCs	---	---	---		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Polynuclear Aromatic Hydrocarbons (PAHs)	1-Methylnaphthalene	18	73	---	<0.24	<0.23	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	2-Methylnaphthalene	240	3,000	---	<0.24	<0.23	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Acenaphthene	3,600	45,000	---	<0.24	0.23	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Acenaphthylene	---	---	---	<0.24	0.55	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Anthracene	18,000	230,000	---	<0.24	1.4	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Benzo(a)anthracene	1.1	21	---	<0.12	**3.9**	<0.12	<0.12	<0.12	0.69	<0.12	<0.12	<0.11	<0.13	<0.13
	Benzo(a)pyrene	0.11	2.1	---	<0.12	**4.6**	<0.12	<0.12	<0.12	**0.83**	<0.12	<0.12	<0.11	<0.13	<0.13
	Benzo(b)fluoranthene	1.1	21	---	<0.24	**4.9**	<0.25	<0.24	<0.24	1.1	<0.24	<0.24	<0.23	<0.25	<0.25
	Benzo(g,h,i)perylene	---	---	---	<0.24	2.3	<0.25	<0.24	<0.24	0.48	<0.24	<0.24	<0.23	<0.25	<0.25
	Benzo(k)fluoranthene	11	210	---	<0.24	1.9	<0.25	<0.24	<0.24	0.44	<0.24	<0.24	<0.23	<0.25	<0.25
	Carbazole	---	---	---	<0.24	0.23	<0.25	<0.24	<0.24	0.23	<0.24	<0.24	<0.23	<0.25	<0.25
	Chrysene	110	2,100	---	<0.24	3.8	<0.25	<0.24	<0.24	0.95	<0.24	<0.24	<0.23	<0.25	<0.25
	Dibenz(a,h)anthracene	0.11	2.1	---	<0.12	**0.63**	<0.12	<0.12	<0.12	**0.13**	<0.12	<0.12	<0.11	<0.13	<0.13
	Dibenzofuran	78	1,200	---	<0.24	<0.23	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Fluoranthene	2,400	30,000	---	<0.24	8.9	<0.25	<0.24	<0.24	2.3	<0.24	<0.24	<0.23	<0.25	<0.25
	Fluorene	2,400	30,000	---	<0.24	0.43	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Indeno(1,2,3-cd)pyrene	1.1	21	---	<0.12	**2.8**	<0.12	<0.12	<0.12	0.55	<0.12	<0.12	<0.11	<0.13	<0.13
	Naphthalene	2	8.6	---	<0.24	<0.23	<0.25	<0.24	<0.24	<0.21	<0.24	<0.24	<0.23	<0.25	<0.25
	Phenanthrene	---	---	---	<0.24	4.3	<0.25	<0.24	<0.24	1.3	<0.24	<0.24	<0.23	<0.25	<0.25
	Pyrene	1,800	23,000	---	<0.24	6.7	<0.25	<0.24	<0.24	1.6	<0.24	<0.24	<0.23	<0.25	<0.25
TPH [1]	Gasoline Range (C6-C12)	82 [1]	420 [1]	---	<2.5		<2.5			<2.1	<2.4	<2.4		<2.5	<2.5
	Diesel Range (C10-C20)	96 [1]	440 [1]		<18		<19			31	38	<18		<19	<19
	Oil Range (C20-C34)	230000 [1]	3500000 [1]	---	30		30			170	170	45		35	68
PCBs	Arochlor 1260	0.24	0.99	---			0.14					<0.12			
	All Other PCBs	---	---	---			BDL					BDL			
RCRA Metals	Arsenic	0.68	3	8-25		11	16			<4.5	12	11		11	11
	Barium	15,000	220,000	---		61	110			<9	79	70		32	30
	Cadmium	71	980	---		<0.96	<0.94			<0.9	<0.97	<0.99		<0.85	<1
	Chromium, Total *	120,000	1,800,000	---		11	13			4.6	16	12		18	15
	Lead	400	800	---		54	140			<4.5	15	16		15	15
	Mercury	11	46	---		<0.31	0.37			<0.25	<0.3	<0.3		<0.33	<0.35
	Selenium	390	5,800	---		<2.9	<2.8			<2.7	<0.29	<3		<2.5	<3.1
	Silver	390	5,800	---		<0.96	<0.94			<0.9	<0.97	<0.99		<0.85	<1

BDL	Below laboratory detection limit
PCBs	Polychlorinated Biphenyls
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
##	Detected value
BOLD	Above resident soil RSL
BOLD	Detected above industrial soil RSL
*	Assumes all Chromium is Chromium III

1 - TPH carbon ranges included in laboratory analytical do not correspond exactly with TPH categories used in RSLs. RSLs divide TPH into aromatics and aliphatics which are further divided into low, medium and high carbon ranges. The most conservative RSLs from each range category (low, medium, high) were assigned to the three laboratory ranges. However, the RSLs should be considered tentative/approximate values for comparative purposes.

TABLE 3 - Groundwater Elevation Data

Former Internal Revenue Service Property

200 West Fourth Street, Covington, KY

Well ID	Total Depth (ft)	Top of Casing Elevation (ft)	Date of Measurement	Depth to Water (ft)	Static Water Elevation (ft)
Western Well Group					
MW-01	19.46	94.11	7/21/20	13.01	81.10
			7/23/20	11.94	82.17
MW-02	24.5	98.60	7/21/20	19.74	78.86
			7/23/20	18.90	79.70
MW-03	28.38	99.12	7/21/20	22.40	76.72
			7/23/20	22.56	76.56
MW-04	21.71	100.31	7/21/20	18.97	81.34
			7/23/20	18.26	82.05
MW-05	28.47	92.60	7/21/20	18.86	73.74
			7/23/20	18.79	73.81
MW-06	24.61	95.57	7/21/20	19.96	75.61
			7/23/20	19.54	76.03
MW-07	27.6	96.64	7/21/20	18.14	78.50
			7/23/20	17.44	79.20
MW-08	19.61	97.01	7/21/20	12.29	84.72
			7/23/20	12.33	84.68
Eastern Well Group					
MW-09	31.38	94.39	7/21/20	23.80	70.59
			7/23/20	23.41	70.98
MW-10	15.71	95.89	7/21/20	15.63	80.26
			7/23/20	15.65	80.24
MW-11	24.49	94.16	7/21/20	14.73	79.43
			7/23/20	14.74	79.42
MW-12	28.51	95.78	7/21/20	22.72	73.06
			7/23/20	22.73	73.05

Note: Well elevations in the eastern portion of the Property are not tied directly to wells in the western portion by actual survey. Relative elevations between the two groups of wells are approximate based on comparison of well locations with topographic data provided in the Alta/NSPS Property Survey. Relative elevations within each group were established by actual survey.

TABLE 4 - Groundwater Analytical Results Summary
Former Internal Revenue Service Property
200 West Fourth Street, Covington, KY
(results given in µg/L)

Well / Sample ID	Location/REC	Sampling Date	VOCs			Polynuclear Aromatic Hydrocarbons (PAHs)										RCRA Metals							
			Tetrachloroethene (PCE)	Trichloroethene (TCE)	Other VOCs	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Carbazole	Dibenzofuran	Flouranthene	Fluorene	Naphthalene	Phenanthrene	Other PAHs	Arsenic	Barium	Cadmium	Chromium (total)	Lead	Mercury	Selenium	Silver
MW-1/SB-1	Auto Repair/ Painting	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.32	BDL								
MW-2/SB-2	Bonded Station West	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.54	BDL								
MW-3/SB-3	W. Fourth St. Dry Cleaner	7/23/20	<5	<5	BDL																		
MW-4/SB-4	Texaco Station	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	0.23	<0.2	<0.2	0.5	BDL								
MW-5/SB-5	Auto Repair Northwest	7/23/20	<5	<5	BDL	<0.2	<0.2	0.29	0.5	<0.2	0.32	0.22	**0.28**	0.86	BDL	**53**	650	**14**	**170**	**120**	0.34	<30	<10
MW-6/SB-6	Kelly-Koet/ Carbon Web Mfg.	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	0.36	<0.2	<0.2	<0.2	<0.2	<0.2	BDL								
MW-7/SB-7	Off-site Shell Station	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	BDL								
MW-8/SB-8	Bonded Station East	7/23/20	<5	<5	BDL	0.27	0.34	0.57	1.1	0.5	0.26	0.4	**0.94**	1.6	BDL								
MW-9/SB-9	Fuel Oil USTs	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	0.15	<0.2	<0.2	<0.2	0.24	BDL	**29**	240	5.1	79	**56**	<0.2	<30	<10
MW-11/SB-15	Auto Repair Northeast	7/23/20	<5	<5	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	BDL								
MW-12/SB-17	Electro Plating	7/23/20	**190**	**11**	BDL	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.29	BDL	**55**	460	5	**150**	**160**	0.28	<30	<10
Regional Screening Levels (tap water) [1]			11	0.49		1.1	36	530	N/A	7.9	800	290	0.12	N/A		0.052	3,800	9.2	100 [2]	15	0.63	100	94

##	Detected value
BOLD	Above MCLS or RSLs

BDL: Below laboratory detection limit
VOCs: Volatile Organic Compounds
1 - Effective May 2020
2 - RSL not available for total chromium. Standard used is the USEPA Drinking Water Maximum Contaminant Level (MCL).

TABLE 5 - Sub-slab and Indoor /Outdoor Air Analytical Results Summary
Former Internal Revenue Service Property
200 West Fourth Street, Covington, KY
(results given in µg/m^3)

	Sample ID	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	SV-7	SV-8	SV-9	Maximum Concentration	USEPA VISL Sub-slab Soil Target Concentrations [1]		AA-I	AA-O	USEPA VISL Indoor Air Target Concentrations [1]	
	Location	Former Russell St. Dry Cleaner			Former Furniture Manufacturing			Auto Repair Southeast						Indoor Air	Outdoor Air		
	Date Collected	7/16/20			7/16/20			7/16/20				Commercial	Residential	7/16/20		Commercial	Residential
Volatile Organic Compounds (VOCs)	Acetone	137 E	106 E	47	133 E	116 E	385	29.6	31.9	19.6	385	4,510,000	1,070,000	16.1	20.60	135,000	32,200
	Benzene	<1.6	<1.6	<1.6	2.65	<1.6	2.08	<1.6	<1.6	<1.6	2.65	52.4	12	<1.6	<1.6	1.57	0.36
	2-Butanone (MEK)	10.2	9.91	7.05	22.3	17	25.3	3.27	3.45	<2.95	25.3	730,000	174,000	<2.95	<2.95	21,900	209
	Chloromethane	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03		13,100	3,130	1.16	1.22	394	93.9
	Cyclohexane	<1.72	<1.72	<1.72	3.03	2.24	4.41	<1.72	<1.72	<1.72	4.41	876,000	209,000	<1.72	<1.72	26,300	6,260
	Ethylbenzene	<2.17	<2.17	<2.17	4.73	2.82	4.39	2.34	2.17	2.65	4.73	164	37	<2.17	<2.17	5.0	1.12
	N-Heptane	<2.05	<2.05	<2.05	7.87	4.63	5.49	<2.05	<2.05	<2.05	7.87	58,400	13,900	<2.05	<2.05	1,750	417
	N-Hexane	<1.76	<1.76	<1.76	13.3	5.85	29.6	<1.76	1.83	<1.76	29.6	102,000	24,300	<1.76	<1.76	3,070	730
	2-Hexanone (methyl butyl ketone)	<4.1	<4.1	<4.1	<4.1	<4.1	13.8	<4.1	<4.1	<4.1	13.8	4,380	1,040	<4.1	<4.1	131	31.3
	Naphthalene	2.2	**3.15**	1.26	1.78	1.99	1.63	2.46	2.25	2.1	**3.15**	12	2.75	**1.31**	<1.05	0.36	0.083
	2-Propanol (isopropyl alchohol)	13.3	14.2	10.5	14	10.8	12.3	15.1	14.2	11.5	15.1	29,200	6,950	<2.46	<2.46	876	209
	Tetrachloroethene (PCE)	22.5	3.93	<3.39	4.14	7.87	<3.39	8.34	7.53	8.41	22.5	1,570	360	3.39	<3.39	47	10.8
	Toluene	2.26	2.6	2	33.8	12.7	129	4.07	4.26	3.58	129	730,000	174,000	<1.88	<1.88	21,900	5,210
	1,1,1-Trichloroethane	<2.73	<2.73	<2.73	<2.73	<2.73	10.5	<2.73	<2.73	<2.73	10.5	730,000	174,000	<2.73	<2.73	21,900	5,210
	Trichlorofluoromethane	3.26	3.71	3.82	3.54	3.09	<2.81	<2.81	3.82	<2.81	3.82	NITI	NITI	3.6	<2.81	NITI	NITI
	1,2,4-Trimethylbenzene	5.36	<2.46	<2.46	3.93	<2.46	4.67	2.85	2.9	2.75	5.36	8,760	2,090	<2.46	<2.46	263	62.6
	1,3,5-Trimethylbenzene	3.1	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	<2.46	3.1	8,760	2,090	<2.46	<2.46	263	62.6
	m,p-Xylene	2.34	2.52	2.61	9.08	5.82	36.1	4.26	4.56	4.13	36.1	14,600 (total)	3,480 (total)	<2.17	<2.17	438 (total)	104 (total)
	o-Xylene	<2.17	<2.17	<2.17	5.04	2.91	27.8	<2.17	<2.17	2.21	27.8			<2.17	<2.17		
	All other VOCs	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL				BDL	BDL		

Detected value
BOLD Above Commercial or Residential VISL

BDL: Below laboratory detection limit
"E" Value above laboratory quantitation range
VISL: Vapor Intrusion Screening Levels

1 - Accessed July 20, 2020. Carcinogenic Risk = 1 x 10-6 Non-Carcinogenic Risk (Hazard Quotient) = 1

Appendix A

Personnel Resumes

Michael J. Luessen, C.P./P.G.

Principal Geologist

Branch Location

- Cincinnati, Ohio

Education

- MS, Geology, Idaho State University, 1987
- BS, Geology, Northern Kentucky University, 1983

Professional Registrations/ Certifications

- Certified Professional (Ohio's Voluntary Action Program, #267)
- Registered Professional Geologist (Kentucky, #113028)

Specialized Training

- RELLC Training on Expedited Response/Assessment at complex, multi-source sites, 2013
- Member, Partners in RBCA Implementation (PIRI) Group, Ohio, 1997-99
- Risk-Based Corrective Actions Seminars, 1995-96, Shell Oil Products Co. Internal Training Seminars (by Shell's Westhollow, Texas Research Group)
- Corrective Action for Containing and Controlling Ground Water Contamination, AGWSE Short Course, 1991
- OSHA Hazardous Waste Site Operations Training (40 hours), Supervisory Training (8 hours), 29 CFR 1910.120

Professional Affiliations

- National Groundwater Well Association

ATC Start Date

- December 1988

Michael is a Principal Geologist in ATC's Cincinnati, Ohio office. He is responsible for technical and financial aspects of client management, business development and quality assurance/quality control. He has over 35 years of experience in geology, with over 30 years of experience in environmental project management.

Areas of Expertise

- Brownfield Redevelopment
- Environmental Due Diligence
- Phase I and II Site Assessment Services
- Remedial Design
- Underground Storage Tank Management Services

Project Experience

Brownfields

STM Wren Paper Mill, Brownfield Redevelopment - City of Middletown

Certified Professional for CORF-funded remedial project involving asbestos abatement, demolition and soil/groundwater remediation of a former paper mill. Responsible for specification development, contractor selection/oversight, interfacing with OEPA and ODOD/ODSA, development/oversight of remedial approach, data evaluation, and ensuring VAP compliance. Also responsible for review of all contractor invoices and preparation of CORF disbursement requests on behalf of City. NFA submitted January, 2016; CNS issued November, 2018.

N. College Hill Development Brownfield Redevelopment - City of Cincinnati

Certified Professional for redevelopment project along Hamilton Avenue that included limited soil remediation associated with former dry cleaning facility and metals impact from a photo developer. Remedy included a restrictive environmental covenant that prohibits groundwater use for potable purposes relative to metals impact from an apparent off-Property source. Work was performed turnkey on behalf of the City of Cincinnati. NFA submitted October, 2015; CNS issued May, 2016.

Former Nutone Facility, Brownfield Redevelopment - City of Cincinnati

Certified Professional for CORF-funded remedial project involving asbestos abatement, demolition, soil remediation and POGWMPUS demonstration at a former manufacturing facility. Project approach included in-situ chemical oxidation of solvent-impacted soil (to avoid management/disposal of such materials as a characteristic hazardous waste) and development of property specific numeric standards, and evaluation/mitigation of vapor intrusion issues. Responsible for specification development, contractor selection/ oversight, interfacing with OEPA and ODOD, remedial design, data evaluation, and VAP compliance. NFA submitted December, 2013; CNS issued May, 2015.

Blue Ash Airport, Brownfield Redevelopment - City of Cincinnati

Certified Professional for CORF-funded remedial project involving soil remediation of a former shooting range. Project approach included stabilization of lead-impacted soil (to avoid management/disposal of such materials as a characteristic hazardous waste) and development of property specific numeric standard for arsenic. Responsible for specification development, contractor selection/oversight, interfacing with OEPA/ ODOD, remedial design/oversight, data evaluation and VAP compliance. NFA submitted May, 2013; CNS issued June, 2014.

Former Miami Packaging Facility, Brownfield Redevelopment - Middletown, Ohio

Certified Professional for USEPA- and COAF-funded Assessment/ Remedial Activity. Scope of work included Phase I /Phase II Property Assessment of facility (including pre-demolition asbestos inspection), a pre-acquisition Hydrogeologic Investigation, and Remedial Activity (asbestos abatement and soil remediation). NFA submitted December, 2013; CNS issued June, 2014.

City of Middletown, Brownfield Assessment - Middletown, Ohio

Principal Geologist for implementation of two $200,000 federal grants for Brownfield Assessment. Fourteen properties were evaluated, with varying scopes of work including Phase I ESAs, Asbestos Inspections, Sampling and Analysis Plan Development, Phase II ESAs, and Remedial Action Plans. Wide variety of sites investigated – from industrial through residential. Responsibilities included assisting City with site identification/ evaluation and grant administration. Work was performed in accordance with a project-specific USEPA-approved QAPP.

Port Authority of Greater Cincinnati/Hamilton County, Brownfield Assessment - Southwest Ohio

Principal Geologist for Phase I/II Property Assessments for Brownfield properties identified by the Port. Scope of work included work scope development, oversight, development of Sampling/Analysis Plans, and/or Remedial Action Plans. Eight sites were investigated. Work was performed per USEPA-approved QAPP.

Environmental

Valley Conveyance System Project, Metropolitan Sewer District - Cincinnati, Ohio

Project Director for environmental work associated with the separation of storm and sanitary sewers to address combined sewer overflows in Lick Run drainage basin on west side of Cincinnati. Scope of work over an approximate 8-year period included acquisition-driven due diligence (Phase I and II ESAs), assistance with project design for construction, well abandonment, UST removals/assessment, remedial design/oversight, soils characterization/profiling/management and screening of potential locations for soil re-use.

Various, City of Cincinnati Environmental Contract - Cincinnati, Ohio

Senior technical resource/QA/QC reviewer on work products prior to submittal to City; has performed related work for the City since 1995. In this capacity, has overseen hundreds of diverse projects for various City Department, including but not limited to brownfield redevelopment sites, Phase I/ II ESAs, remedial projects, building science-related work (asbestos, lead and mold), and UST-related projects. Past Projects include the MetroWest/Queen City Barrel site in Lower Price Hill, the Kroger Parking Garage site, the Mills of Carthage Brownfield Redevelopment project, multiple BUSTR-regulated UST release investigation sites, and the SSO #700 site (a brownfield redevelopment project in Reading for MSD).

CityWest Development, Phase I/II ESA, Asbestos, Geotechnical - Cincinnati, Ohio

Point-of-Contact for turnkey consulting services for “CityWest” Development - largest urban redevelopment project in Cincinnati – three city block area. Services included Phase I and II ESA, asbestos surveys and abatement monitoring, geotechnical engineering and materials testing. Integration of geotechnical/environmental project approaches and innovative solutions (dynamic compaction of soils / arsenic speciation) resulted in savings of over $3M to client.

City of Cincinnati, Landfill Study - Cincinnati, Ohio

Managed large-scale study of environmental effects of 12 City-owned landfill sites on sediment and surface water quality of an urban stream for the City of Cincinnati. Study included site review/reconnaissance, hydraulic modeling, quarterly data collection for five consecutive quarters, risk assessment and data compilation/presentation in public forums.

Municipal Client, Mercury Spill Assessment, Remediation - Ohio

Managed assessment/remediation of inadvertent disposition of mercury-containing flow meters at a landfill site in southwest Ohio. Scope of work included with the client, legal counsel and interested parties to negotiate an acceptable approach for assessment and remediation with OEPA. Assessment findings successfully defined a limited area of impact within a potential 2-acre footprint of potential disposition at the landfill. Surgical excavation was performed to isolated materials for off-site disposition as hazardous waste. Innovative assessment/ remedial approach successfully saved client circa $4M relative to cost estimate for scope as originally requested by OEPA.

City of Dayton, Waste Characterization, Assessment - Dayton, Ohio

Managed site assessment and waste characterization for 12 sludge ponds associated with the City of Dayton Waste Water Treatment facilities. Polychlorinated biphenyls were primary contaminant of concern. Data collection included innovative approach to facilitate sample collection in semi-solid sludge pond terrain.

Various, Site Assessment - National

Managed Phase I and II environmental site assessments at more than 1,500 sites throughout Ohio, Indiana, Kentucky, Illinois, Pennsylvania, and Florida. Managed closure of underground storage tanks from more than 500 sites in Ohio, and hydrogeologic assessments throughout Ohio, Kentucky, Indiana, Pennsylvania and Florida. Projects have included portfolio projects with over 150 sites. Have tailored spreadsheets to client-specific needs to track project progress, summarize findings and prioritize additional investigation.

RELLC, Assessment, Remedial Design - National

Act as a technical resource for a national consortium of oil companies on large, complex petroleum-related sites with co-mingled contaminant plumes. In this capacity, become exposed to cutting edge remedial technologies through petroleum company in-house technical resources. Such experience affords clients with the benefit of current knowledge and practical problem-solving in a variety of hydrogeologic settings.

Major Oil Company Merger, Expedited Due Diligence - National

Project Director for expedited due diligence study related to merger of three major oil companies. Merger was the largest of its kind at that time. Rapid assessment was performed at over 300 retail petroleum sites across the U.S. Worked with clients to develop and refine work scope, managed implementation of data acquisition/compilation, and presented findings to upper management from three international petroleum firms.

Private Client, Drum Remediation - Kentucky

Managed hazardous waste remediation project that entailed the removal of 118 buried drums of paint waste from a site along a creek in Northern Kentucky. Project included preparation and implementation of a remedial work plan, associated regulatory negotiation, and interfacing with three responsible parties and their associated legal counsel.

Legal Clients, Litigation Support - Ohio

Expert Witness, Hydrogeologic-, UST- and ESA-related litigation, in Southwest Ohio. Cases have included: i) salt impact/migration to drinking water in Dayton, Ohio, ii) wetlands issue associated with Phase I ESA in Beaver Creek, Ohio iii) petroleum impact associated with AST overfill in residential setting in Vandalia, Ohio, iv) UST-related remedial cost issue, Cincinnati, Ohio, v) asbestos/ESA-related issue, Cincinnati, Ohio.

Publications/Presentations

- Luessen, M.J., 2019, Pending VAP Rule Changes, Cincinnati Bar Association Seminar
- Luessen, M.J. and Adams, D., 2018, BUSTR Rule Changes Update, Cincinnati Bar Association Seminar
- Hendix, K. and Luessen, M.J., 2017, Indiana Brownfields Update: Making Redevelopment Projects Work, Indianapolis Bar Association Seminar
- Luessen, M.J., 2014, What You Need to Know About the ASTM E1527-13 Phase I ESA Standard Practice, Cincinnati Bar Association Seminar
- Luessen, M.J. and Adams, D., 2012, Navigating BUSTR's New 2012 Rules: A Quicker Path to Closure for your Clients? Cincinnati Bar Association Seminar
- Luessen, M.J. and Worrell, A.C., 2003, *Brownfield Redevelopment and Environmental Due Diligence – Managing the Process*, Lorman Seminar on Construction Design/Build, Cincinnati, Ohio
- Luessen, M.J. and Worrell, A.C., 2002, *Environmental Issues in Site Development: Brownfields vs. Greenfields*, Lorman Seminar on Construction Design/Build, Cincinnati, Ohio
- Luessen, M.J. and Gunn, M., 1999, Environmental Effects of Twelve City-Owned Landfill Sites on Sediment and Water Quality in the Mill Creek: Ramifications for Urban Streams, 8th Annual Business and Industry's Env. Symposium, Cincinnati, Ohio, p. 368-382
- Luessen, M.J., Krichbaum, S. and Dedoes, R., 1998, Ohio Underground Storage Tanks: BUSTR and RBCA, Volume I, 7th Annual Business and Industry's Environmental Symposium, Cincinnati, Ohio, p. 384-405
- Luessen, M.J., Allex, M.K. and Holzel, F.R., 1995, Qualitative vs. Quantitative Data: Controls on the Accuracy of PID Field Screening in Petroleum Contamination Assessment Applications. NGWA Program for In-Situ Field Tests for Site Characterization and Remediation, Annual Convention, Indianapolis, IN, p. 51
- Luessen, M.J., 1992, Remediation of Petroleum-Impacted Soil and Groundwater in Southwestern Ohio: The Importance of Thorough Pre-Remedial Site Characterization. GSA Abstracts w/ Programs, V. 24, n. 7, National Meeting, Cincinnati, Ohio, p. A-74

William A. Norris

Senior Project Geologist

Branch Location

- Cincinnati, Ohio

Education

- MS, Geology, University of Cincinnati, 1991
- BS, Paleobiology, Bowling Green State University, 1987

Specialized Training

- OSHA Hazardous Waste Site Operations Training (40 hours), 29 CFR 1910.120
- Asbestos Building Inspector and Management Planner Training
- Ohio Asbestos Hazard Evaluation Specialist #ES32648

ATC Start Date

- September 1991

Bill has over 29 years of diverse experience providing due diligence services, developing and conducting hydrogeologic and subsurface investigations, closing and assessing underground storage tank (UST) systems, implementing remedial action plans, and completing regulatory compliance audits and permits. He has played key roles in Brownfields redevelopment projects both outside of and within the Ohio EPA's Voluntary Action Program (VAP).

Areas of Expertise

- Due Diligence / Phase I and Phase II Environmental Site Assessments
- Brownfield Redevelopment
- UST Closures
- Environmental Regulatory Compliance

Project Experience

Environmental Due Diligence / Phase I Environmental Site Assessments

Site Assessments – Various Local and National Clients

Project Role: Performed over 1,000 Phase I Environmental Site Assessments (ESAs) in accordance with ASTM 1527-13 and Federal All Appropriate Inquiry (AAI) requirements throughout Ohio, Kentucky, Indiana, West Virginia, Michigan, Tennessee, Texas and New Mexico for financial institutions, real estate developers, property owners, legal counsel, and local/state governments. Properties have included agricultural, residential, commercial, industrial facilities and corridor studies.

Legal Client, Railroad Right-of-Way, Phase I and II ESAs – Cincinnati OH

Project Role: Performed Phase I ESA of 1.5 mile R-O-W through mixed residential, commercial and industrial area to facilitate property acquisition by private client primarily for redevelopment as pedestrian walkways. Identified potential environmental concerns. Planned, implemented and managed subsurface investigation to assess potential health risks.

Brownfield Redevelopment

City of Middletown, STM/Wren Paper Mill, Brownfield Redevelopment - Middletown OH

Project Role: Senior Geologist for state CORF-funded remedial project involving soil/groundwater characterization and remediation of a former paper mill. Responsible for assisting Certified Professional (CP) in specification/development of remedial approach, contractor selection, data evaluation, and state Voluntary Action Program (VAP) reporting. NFA issued January, 2016; CNS issued November 2018.

City of Cincinnati, Blue Ash Airport, Brownfield Redevelopment – Blue Ash OH

Project Role: Assisted CP with implementing remedial project involving soil remediation of a former shooting range. Project approach included stabilization of lead-impacted soil to avoid management/disposal of such materials as a characteristic hazardous waste. Responsible for specification development, contractor selection, data evaluation, and VAP submittals. NFA submitted May, 2013; CNS issued June, 2014.

UST Closures

Underground Storage Tank Closure and Tier 1 and Tier 2 Evaluations – Ohio

Project Role: Conducted field investigations, removal/closure and reporting of numerous underground storage tank facilities in Ohio. Completed Tier 1 and Tier 2 risk-based evaluations of impacts including data collection and interpretation, land use determinations, drinking water well/municipal water sourcing evaluations, sensitive area/wellhead protection determinations, and fate and transport modeling.

Environmental Regulatory Compliance

Financial Client, Compliance Audit and Regulatory Permitting - Northern Kentucky

Project Role: Performed comprehensive environmental compliance audit to assist a large financial firm meet federal and state guidelines at a multi-building office complex. Identified deficiencies and completed necessary documents, training and permitting to address identified issues and obtain air permits for facility.

Industrial Client, Compliance Audit and Regulatory Permitting - Lebanon OH

Project Role: Assisted manufacturing company to identify regulatory deficiencies and complete SPCC spill prevention plans, TRI Form R submission, SWPPP stormwater plan, and air potential-to-emit evaluation.

bill.norris@atcgs.com 513 842 3961

Michael Baumgarter

Project Geologist

Mike is a Project Geologist in ATC's Cincinnati, Ohio office. He is responsible technical aspects of field activities, including soil, groundwater and soil gas sample collection/analysis and associated data compilation/evaluation. He has over 12 years of experience in geology, with over 10 years of experience in field data collection and associated data evaluation/compilation.

Branch Location

- Cincinnati, Ohio

Education

- BS, Geology, Northern Kentucky University, 2012

Specialized Training

- OSHA Hazardous Waste Site Operations Training (40 hours), Supervisory Training (8 hours), 29 CFR 1910.120

ATC Start Date

- December 2013

Areas of Expertise

- Brownfield Redevelopment
- Environmental Due Diligence
- Phase II Site Assessment Services
- Remedial Design/Oversight
- Underground Storage Tank Management Services

Project Experience

Environmental

UST Removal / Various Clients / Various Locations

Coordinated multiple underground storage tank removal projects including site characterization, remediation and tank replacement for major petroleum companies, industrial facilities, and private companies

Hydrogeologic Testing / Various Sites / Ohio

Performed aquifer tests to determine site-specific hydrogeologic properties to be incorporated into ground water models.

Tier 1 / Various Clients / Ohio

Preparation of Tier 1 risk-based evaluation report, including: data collection and interpretation, zoning information collection, drinking water well/municipal water use searches, sensitive area/wellhead protection area determination, and report generation.

Remedial Investigations, Air National Guard, Ohio

Geologist for field investigations and data collection across a large United States Air National Guard Installation with adherence to CERCLA and UST regulations. Project scope included characterization of the extent of soil and groundwater impacts and associated risk assessment/feasibility studies for multiple areas of concern in order to achieve unconditional use site closure.

Metropolitan Sewer District, Cincinnati, Ohio

Senior geologist responsible for field activities and data collection associated with a large construction project separating combined sanitary and storm sewers. Improvements wer part of a global consent decree issued in 2004 by the USEPA, OEPA, and the Ohio River Valley Water Sanitation Commission (ORSANCO) requiring the reduction of up to 2 billion gallons of CSO by 2018. Activities at the site included extensive soil and groundwater assessment activities and geophysical studies to evaluate potential impacts associated with historical use including several former filling/service stations and industrial facilities.

Appendix B

Geophysical Survey Report

Grumman Exploration, Inc.
2791 Leeds Road
Columbus, Ohio 43221
(614) 488-7860 tel www.GrummanExploration.com

Non-destructive Subsurface Exploration
Near-surface Geophysics

July 24, 2020

Michael Luessen
ATC Group Services, LLC
11121 Canal Road
Cincinnati, OH 45241-1861

RE: Report of Geophysical Surveys at the Former Internal Revenue Service Site, W. 4th Street and Madison Avenue in Covington, Kentucky; GEI Project No. 01-40048

Dear Mike:

This letter-report briefly summarizes the results and interpretations regarding the geophysical surveys performed over seven (7) investigation areas this site. A reported closed-in-place tank was detected in the interior parking garage. Anomalous EM responses that may indicate underground storage tanks (USTs) or other buried metallic structures were observed in three of the investigation areas.

Project Overview

Grumman Exploration, Inc. conducted Ground-penetrating radar (GPR) and/or Electromagnetic (EM) induction profiling surveys in targeted areas at the former Internal Revenue Service (IRS) facility in Covington, Kentucky. The overall IRS site spans several city blocks in downtown Covington, KY and consists of former IRS buildings and surrounding parking lots. According to historical information reviewed by ATC Group Services, LLC, several underground storage tanks (USTs) and other conditions of environmental significance may have been located throughout the multi-block property. The geophysical investigation area locations, extents and historical exploration objectives are illustrated on Figure 1 and include:

- Site #1: North-east-central, area between buildings, former heating oil USTs;
- Site #2: Northeast parking lot, west end, filled area (combined surveys with Site #3);
- Site #3: Northeast parking lot along Madison Avenue, auto repair and electroplating;
- Site #4: Southeast sector, along W. 4th Street, Auto repair and sales;
- Site #5: South-central, along W. 4th Street, Bonded Oil facility;
- Site #6: West-Southwest Parking lot, northeast corner of W. 4th and Johnson Streets (south and southeast sectors), gas station, dry cleaners and Bonded Oil facility; and

- Site #7: West-Southwest parking lot (northwest sector), southeast corner of W. 3rd and Main Streets, auto repair and painting.

Because of the long history of commercial, industrial and manufacturing activities at these properties, there is concern that undocumented USTs, buried structures and/or waste fill areas could remain. The nature of many of the former businesses may have involved the storage, use, production and/or disposal of hazardous materials including fuels, lubricants, solvents and various other process chemicals. No information is available regarding the number, locations, contents, removal or closure of tanks or waste disposal areas. Geophysical surveys using EM and/or GPR profiling were requested to non-destructively assess subsurface conditions in seven (7) sub-regions at the site. The ground surface in all areas generally consisted of asphalt parking lot and driveway pavement. Obstructions and sources of electrical interference included building walls, window frames and overhead doors, fences, landscaping and hedges.

Field Procedures

Grumman Exploration, Inc. conducted GPR and EM surveys July 14 and 15, 2020 in the seven (7) targeted areas as designated by representatives of ATC Group Services, LLC. Figure 1 provides and overview of the investigation areas within the overall IRS site. Figures for each investigation area illustrate the specific conditions and geophysical survey results for each area. Field survey grids was only established over all seven areas, and the local grid reference locations are indicated on the site diagrams. The primary investigation method was EM which was conditionally followed by targeted GPR where anomalous EM responses were observed. Because of the lack of anomalous EM responses in Site #s 4 and 5, GPR scans were not performed in these areas.

The survey grid reference points are indicated on the site diagrams for each site respectively. The EM survey instrumentation consisted of a GSSI GEM-300 multi-frequency electromagnetic (EM) induction profiling system. Vertical dipole quadrature-phase (proportional to bulk electrical conductivity) and in-phase (metal-sensitive) measurements using a single coil alignment at three frequencies (15,030 Hz and 9,810 Hz and 4,410 Hz) were recorded electronically at each grid location. The transect spacing was 5-ft and the in-line station spacing (measurement interval) was ~2.2-ft. A "continuous survey" mode was used. In this survey mode, data are acquired at a fixed time interval while the operator walks along a survey line at a steady pace. Regularly spaced reference marks were incorporated into the data during acquisition to "fix" the measurement locations. Subsequently a computer program was used to adjust the station positions with respect to the coordinate system being used.

Following the survey, the EM data were downloaded onto a laptop computer and prepared for contouring. The EM data were contoured using a commercially available program (Surfer,

Golden Software, Inc.). The conductivity readings are reported as relative units in terms of milli-Siemens/meter (mS/m) and the in-phase in parts-per-million (ppm). The conductivity measurements are considered relative since no actual calibration location was available on site to verify these measurements. The in-phase response is also a relative measurement and generally should be close to zero when not in the vicinity of highly conductive or metallic objects.

Ground-penetrating Radar scans were conducted over five of the investigation areas with an emphasis over anomalous EM 'metal' targets and locations of historical interest. The GPR system used was a GSSI SIR-4000 in conjunction with a 400 MHz dipole antenna. The first field task involved equipment setup and the completion of several test scans to observe the GPR response and to adjust the data acquisition parameters. A survey wheel was used to acquire distance-based data at the density of approximately 10.0 GPR traces per foot. The time window used was 80 nanoseconds (ns) and band-pass filters were applied to reduce extraneous interference. Preliminary interpretations regarding the possible presence of excavations and anomalous buried structures and objects were made as the GPR data were acquired. The data were recorded electronically on an internal hard disk in the field and later transferred to a computer workstation for subsequent processing, display and analysis. Although many of the significant GPR features were apparent on the raw GPR field records, supplemental data processing was performed to enhance the interpretation and presentation of these features. The data processing consisted of bandpass filtering, and spatial filtering (f-k) to suppress horizontal banding (an antenna-ground coupling effect) within the GPR records.

Results and Interpretations

The attached figures present the geophysical survey interpretations superimposed on diagrams for all seven investigation areas. Selected GPR records from four of the sites were annotated and interpreted and are also presented some of the figures. The following paragraphs summarize the geophysical survey findings.

Site #1: North-east-central, area between buildings (Figures Site #1-1 and 2)

No anomalous strong EM or GPR responses that would indicate a UST were observed in Site #1 in areas away from known sources of electrical interference. Strong interference from the reinforced concrete sidewalk, building walls and overhead metal doors was observed along the west wall of the mechanical room in the proximity of the vent piping. A region of deeper, more chaotic reflections was observed west and southwest of the vent pipes. This region is believed to coincide with former heating oil tank excavations. The tanks were reportedly removed. The deeper, chaotic reflections also intersect what may be one or two large utility pipe trenches in the central and west sectors of the corridor west of the mechanical room.

Site #s 2 and 3: Northeast parking lot (Figures Site #s 2&3-1, 2, and 3)
Anomalous strong EM in-phase ('metal' sensitive) responses were observed in two locations within the combined Site #s 2 and 3 investigation area. The EM 'metal' anomaly locations include ~105-ft W/ 70-ft to 80-ft S (Site #3), and the smaller anomaly near ~252-ft W/44-ft S (Area #2). Both EM in-phase anomalies are consistent with the response observed over single, small USTs at similar sites throughout the Midwest. GPR scans over the larger Site #3 anomaly (Figure Site #s 2 & 3-3b and c) show no indication of an anomalous reflective structure that would suggest a tank or other reflective metallic structure. It is not uncommon for GPR to show inconclusive results over more deeply buried targets with an excessive thickness of conductive backfill material such as wet clay, weathered shale, slag, cinders, or other conductive demolition debris fill. Further invasive exploration at this location would be required to determine the cause of the 'metal' anomaly.

GPR scans over the Site #2 EM 'metal' anomaly location (~252-ft W/44-ft S: Figure Site #s 2 & 3-3a) show a strong inverted-hyperbola reflection response. This reflection response is similar to what is observed over reflective cylindrical-shaped targets such as small tanks, a large diameter pipe, pipe valve/fitting, or other metal structure. The proximity of the coincident EM and GPR response to a water line and hydrant suggest that the anomaly may be somehow associated with the water line or a water valve. However, that both EM and GPR responses are similar to that caused by a small, tank, further investigation of this target may be desired to help explain these responses. Indications of piping, conduits and other linear structures were observed on both EM contour diagrams. Most of these linear structures are believed to coincide with various utility lines (e.g. water, sewer, electric, etc.). GPR scans over the east sector of Site #3 show no distinctive regions of deeper chaotic GPR responses that would clearly indicate former basements, foundations and/or excavations. It is possible that a veneer of more conductive clay, shale and debris fill was used to regrade the parking lot during construction, thereby preventing significant GPR signal penetration.

Site #4: Southeast sector, along W. 4th Street (Figures Site #4-1 and 2)
No anomalous EM responses were observed anywhere within Site #4. Indications of piping were observed, and most appear to correspond to known utility pipes or conduits. Because this investigation area is over 6-ft below the level of the 4th Street sidewalk, it is possible that any former structures at Site #4 were excavated and removed during the construction of the IRS facility. Strong interference effects were observed along the retaining walls and close to the building. No GPR scans were conducted within Site #6.

Site #5: South-central, along W. 4th Street (Figures Site #5-1 and 2)
No anomalous EM responses were observed anywhere within Site #5. Strong interference effects were observed over the reinforced concrete sidewalks, and near the retaining and building walls. That the investigation area is several feet below the level of the 4th Street sidewalk, it is possible that any former structures were excavated and removed during the

construction of the IRS facility. Indications of only one possible pipe was note on the EM contour diagrams. Because of the lack of significant EM responses, no GPR scans were conducted within Site #5.

Site #6: West-Southwest Parking lot, northeast corner of W. 4th and Johnson Streets, (Figures Site #6-1, 2 and 3)
A large, anomalous strong EM in-phase ('metal' sensitive) response was observed in the west central sector of Site #6 (Figure Site #6-2: ~218-ft to 323-ft W/ 59-ft to 82-ft N). The strength and lateral extent of this EM in-phase anomaly is consistent with the type of response that has been observed over a single large tank or possibly multiple smaller tanks at similar sites throughout Kentucky and Ohio. Metal tanks often appear with a strong EM in-phase response only and little or no corresponding EM conductivity response when using the GEM-300 instrumentation (as observed here). GPR scans over the EM anomaly show no indication of an anomalous reflective structure. It is considered likely that several feet of wet clay, shale and other conductive fill overly the source of the EM anomaly. It is not clear if the anomalous strong EM response indicates a single tank or multiple smaller USTs. Alternative explanations for the anomalous 'metal' response at this location include a concentration of buried metal debris, large metal equipment, or possibly large, deeply buried reinforced concrete structure (e.g. reinforced floor slab or subgrade vault). Further invasive exploration at this location would be required to document the cause of the anomalous responses.

A second, small EM 'metal' anomaly was noted in the southeast sector of Site #6 (Figure Site #6-2: ~34-ft W/ 40-ft N). This strong but small response is likely caused by piece or concentration of metal debris, although it possible, albeit unlikely, that this target also indicates a very small metal tank. GPR scans over this small anomaly show no indication of reflective target. No additional anomalous EM responses were noted elsewhere in accessible areas at the property.

Distinct regions of deeper, highly chaotic GPR reflections were observed within the south sector of Site #6 (Figure Site #6-3). The approximate extents of these regions are indicated on Figures Site #6-1 and 2. These chaotic reflection response zones are believed to indicate backfilled former basements, large pipe trenches and/or excavations. The chaotic reflections may be caused by a heterogeneous mix of rubble and demolition debris.

Site #7: West-Southwest parking lot, southeast corner of W. 3rd and Main Streets (Figures Site #6-1, 2 and 3)
Coincident anomalous strong EM conductivity and in-phase responses were observed in the southeast-central sector of Site #7 (See Figures Site #7-1 and 2). The coincident strong rectangular-shaped EM responses suggest that the anomaly may be caused by a buried reinforced concrete structure such as a concrete basement floor and foundation walls or subgrade concrete vault. Coincident EM conductivity and in-phase responses are generally

not observed over tanks unless the tanks are enclosed within a concrete structure (e.g. basement or vault). A localized zone over the EM anomaly shows deeper, highly chaotic reflections and a possible arc-shaped response (See Figure Site #7-3b and c: ~98-ft to 107-ft E/69-ft S) within a larger chaotic reflection response area. The unusual arc-shaped reflection appears to straddle the edge of the EM anomaly limits. Although the apparent arc-shaped GPR reflection GPR is somewhat similar to a tank response, it is not clear that this anomaly represents a tank. It the unusual GPR response is a tank, the tank may be located within a former reinforced concrete basement or vault. Further invasive exploration at this location would be needed to document the cause(s) of the EM and GPR anomalies.

Two irregular-shaped regions of elevated EM conductivity levels were observed in the western half of the Site #7 investigation area (See Figure Site #7-1). These zones are likely caused former basements or topographically low areas that were backfilled using conductive industrial fill (e.g. slag, cinders, etc.). GPR scans over both regions show no indication of a region of deeper fill or a former structure. Indications of linear structures are apparent on the EM contour diagrams and these structures are believed to represent utility piping and/or conduits.

The overall GPR response observed during the survey showed strong signal attenuation effects. The strong signal attenuation effects are generally considered unfavorable for significant GPR signal penetration and suggests the presence of higher conductivity clay, weathered shale or industrial fill (e.g. slag, cinders, elevated salt content) in the shallow subsurface. Areas with low signal attenuation may reflect greater amounts of sand, gravel and demolition debris in the shallow subsurface. The GPR depth of exploration probably did not exceed 3-ft to 4-ft over most regions with the exceptions of the interpreted former excavations or basements. The exploration depth could be significantly less in areas where higher amounts of wet silt and clay or other complicating near-surface conditions or obstructions are present. The depth of exploration for the GEM-300 is on the order of 15-ft to 20-ft.

General Qualifications

The use of geophysical exploration methods, such as those described herein, should not be considered a substitute for invasive subsurface exploration such as drilling, digging or excavation. The GPR and EM data are interpreted. No warranty, certification, or statement of fact regarding actual subsurface conditions is contained herein. If questions or uncertainties exist regarding the interpreted presence or absence of subsurface conditions based on the geophysical data obtained from this site, it is recommended that supplemental subsurface explorations, such as drilling or test-pit explorations, be conducted if possible to further characterize and document actual subsurface conditions.

Grumman Exploration, Inc. has appreciated this opportunity to be of service to ATC Group Services, LLC. If you have any questions or comments regarding this report, please feel free to contact us.

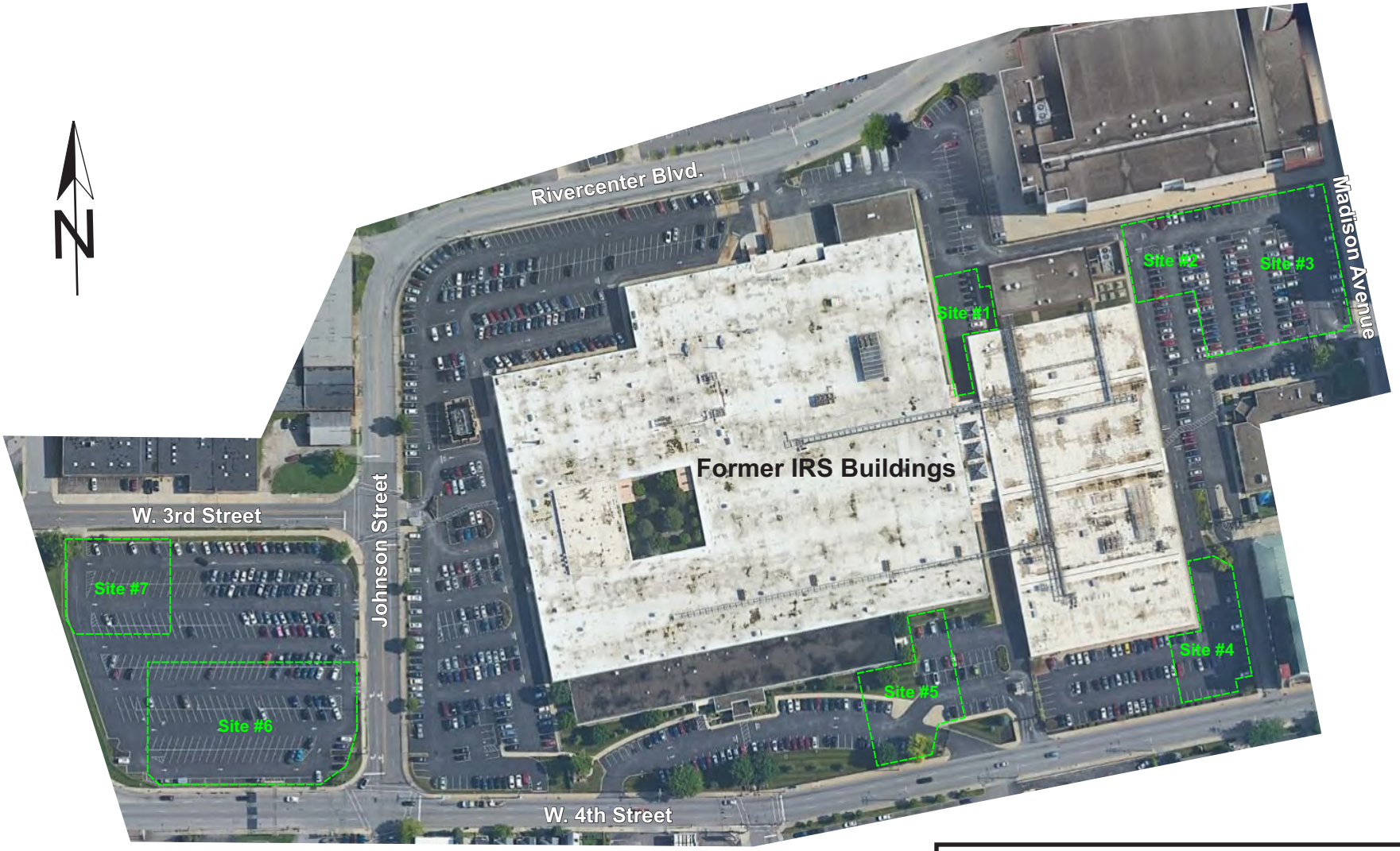
Sincerely,

Grumman Exploration, Inc.

David L. Grumman, Jr.
President/Geophysicist

Attachments:

IRS Sites Geophysical Overview Figure 1
Figures for Sites #s 1 through 7 (15 figures total)



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 5,000; 10,000 and 15,000 Hz
5-ft transect spacings, ~2.2-ft station spacing
GSSI SIR-4000 w/ 400 MHZ antenna GPR system
Survey dates: July 14 -15, 2020
Locations of site and interpreted features are approximate.

Scale: 1" =~200-ft

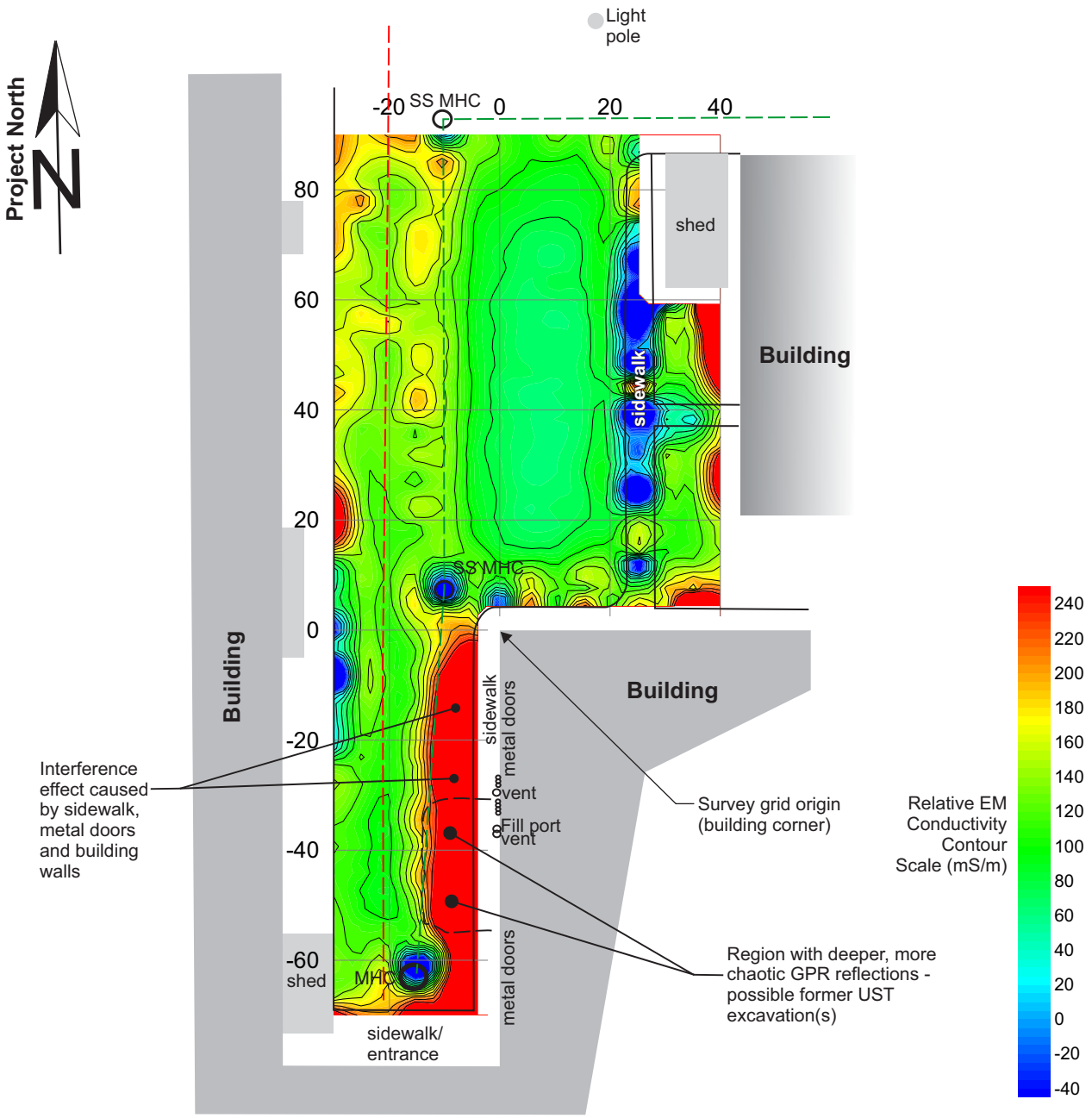
0 100 200 300 400 500 600

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS		
Location: W. 4th Street & Madison Ave., Covington, KY		
Client/Owner: ATC Group Services	By: dlg	Date: 7/16/20
Project No.: 01-40048	Checked:	Scale: 1" = ~200-ft

Figure	Title
1	Former IRS Site - Geophysical Survey Areas

Site #1: Relative EM Conductivity Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

0 10 20 30 40 50

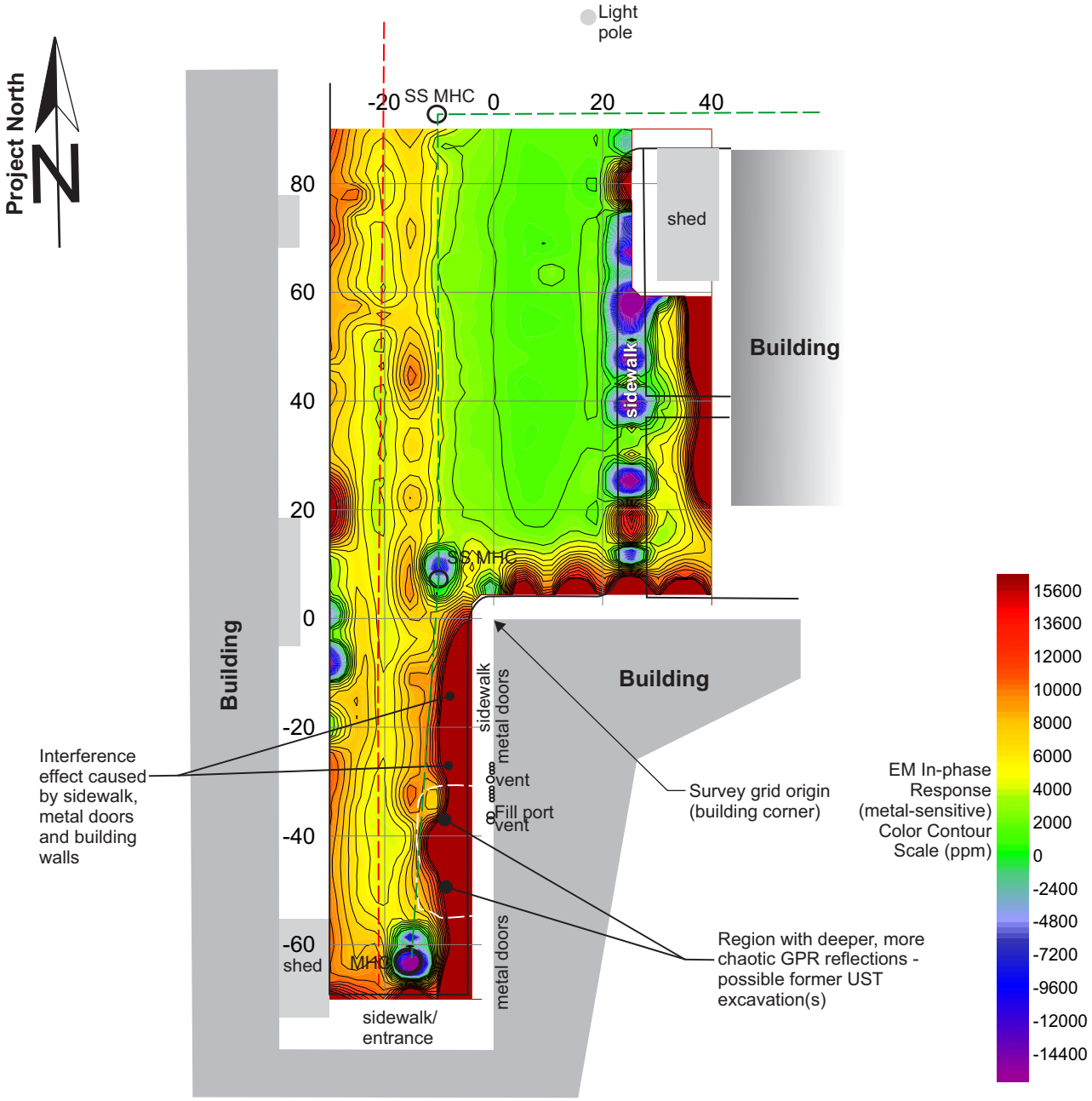
Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1"=30-ft	

Figure: Site#1-1 | Title: Site #1: EM Conductivity Contour Diagram

Site #2: EM In-Phase Response (metal-sensitive) Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

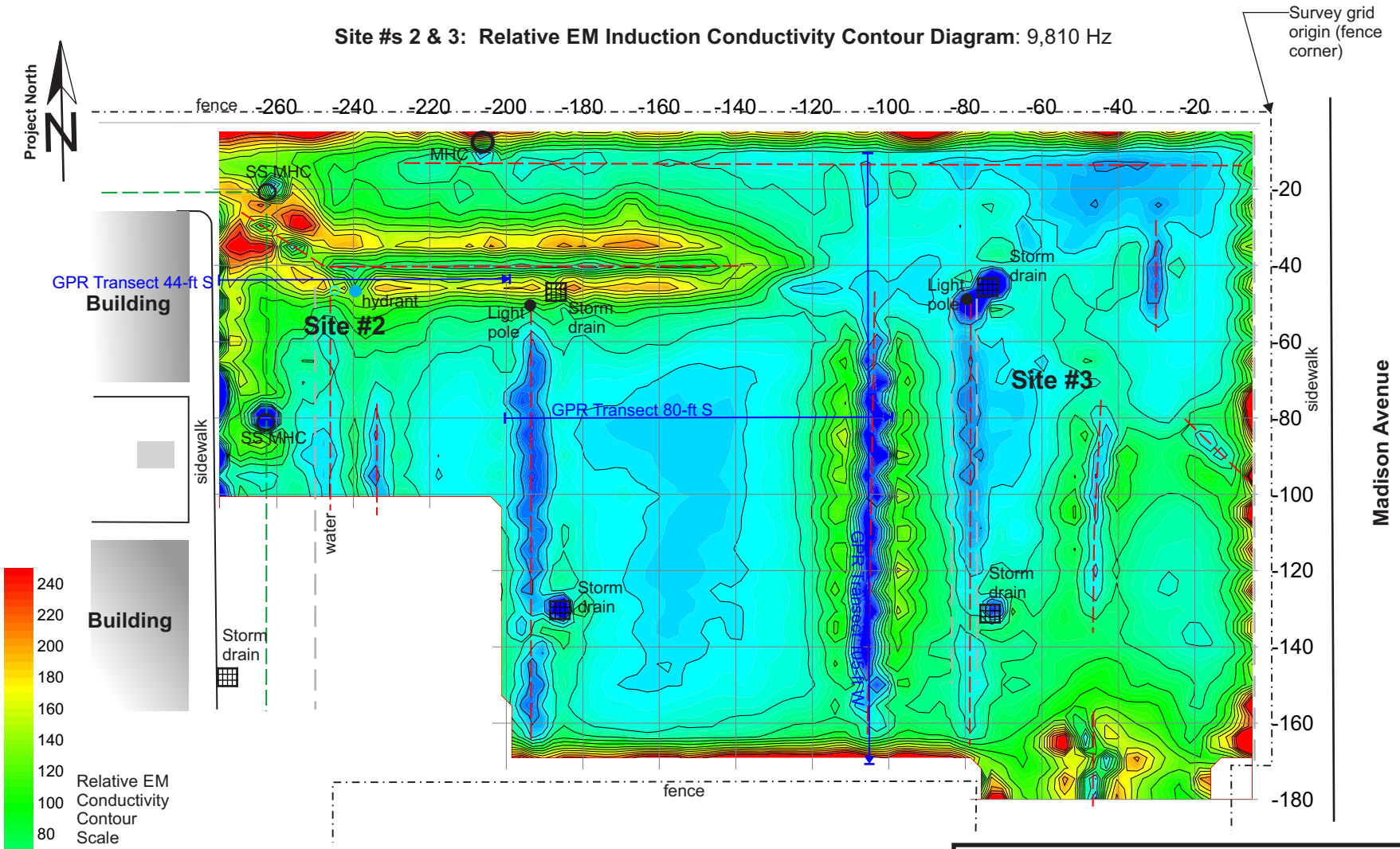
0 10 20 30 40 50

Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1"=30-ft	
Figure: Site#1-2	Title: Site #2: EM In-Phase Response Contour Diagram		

Site #s 2 & 3: Relative EM Induction Conductivity Contour Diagram: 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 5,000; 10,000 and 15,000 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Scale: 1" =~40-ft

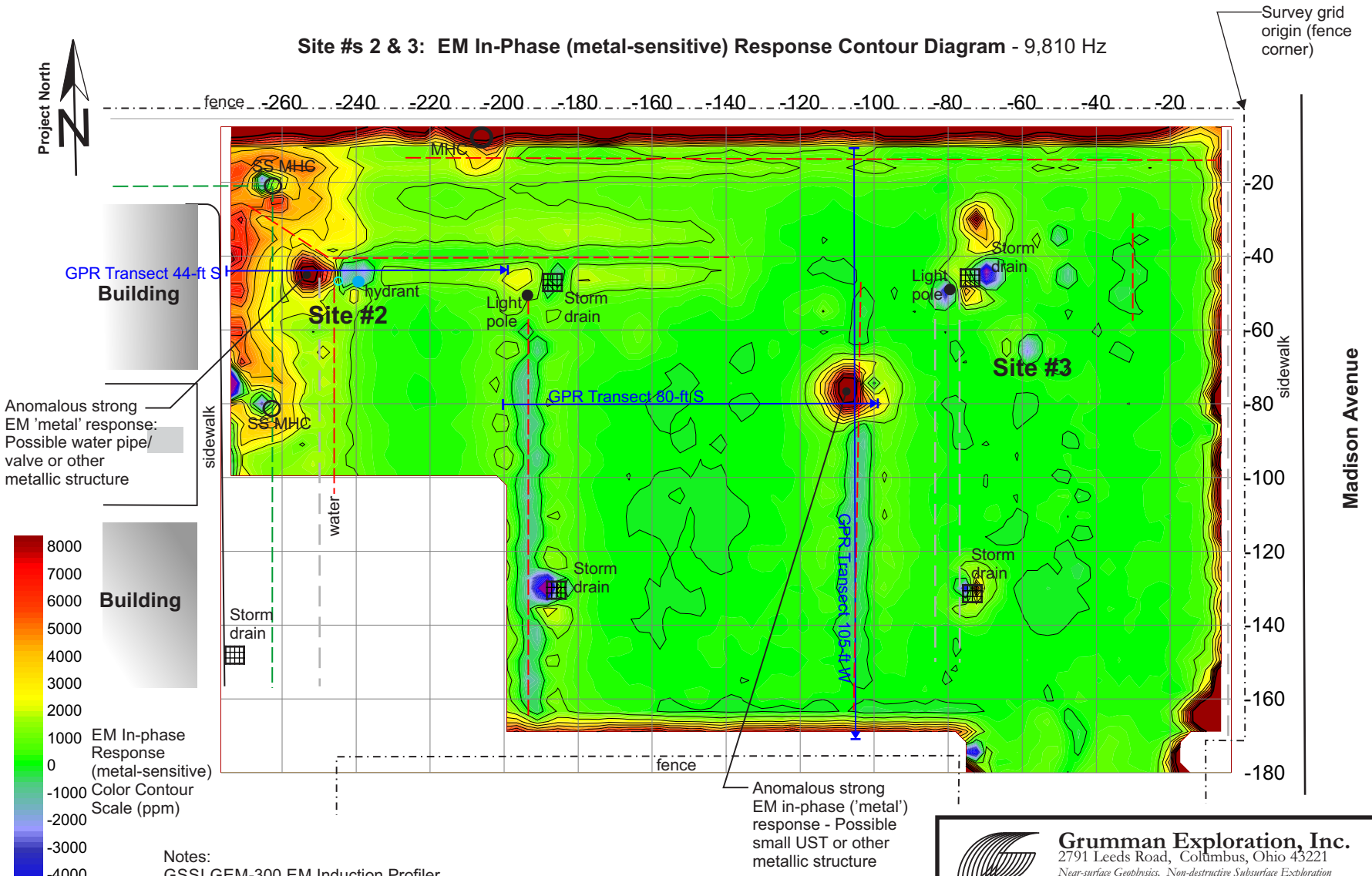
0 20 40 60 80

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS		
Location: W. 4th Street & Madison Ave., Covington, KY		
Client/Owner: ATC Group Services	By: dlg	Date: 7/16/20
Project No.: 01-40048	Checked	Scale: 1" = 40-ft

Figure: Sites 2&3 - 1
Title: Site #s 2 and 3: Site Diagram and EM Conductivity Contour Diagram - 9,810 Hz

Site #s 2 & 3: EM In-Phase (metal-sensitive) Response Contour Diagram - 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 5,000; 10,000 and 15,000 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Scale: 1" =~40-ft

0 20 40 60 80

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client/Owner: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1" = 40-ft	

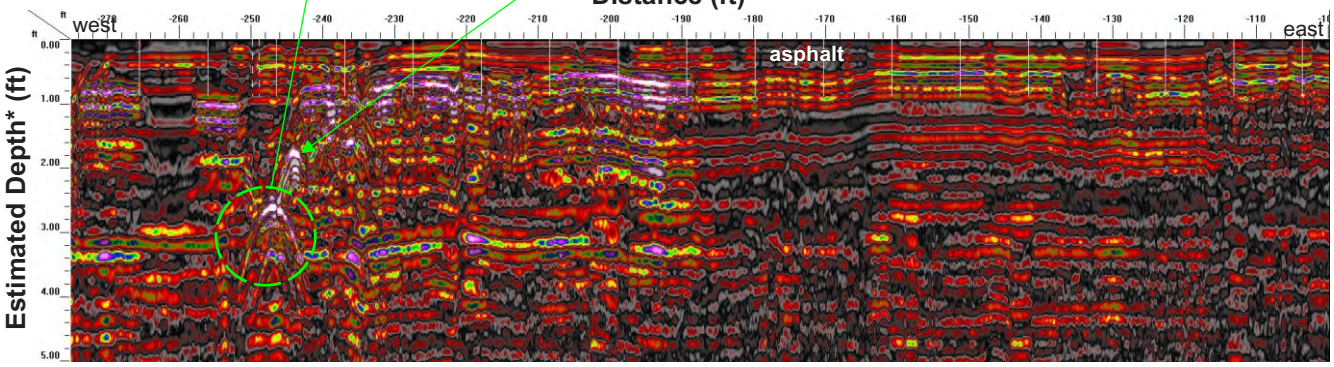
Figure: Sites 2&3 - 2

Title: Site #s 2 and 3: Site Diagram and EM In-Phase (metal-sensitive) Response - 9,810 Hz

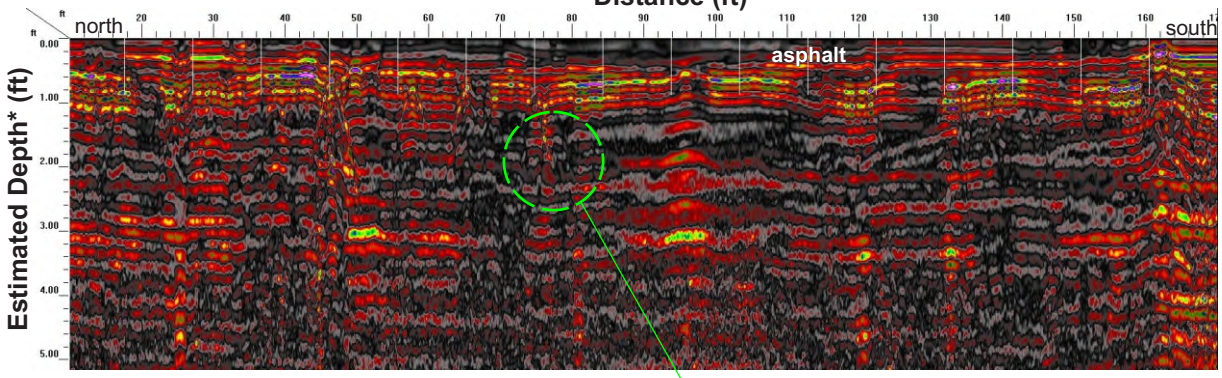
Anomalous strong EM 'metal' and GPR reflections - possible small UST or water line related structure

Possible water piping

A) GPR Transect 44-ft S

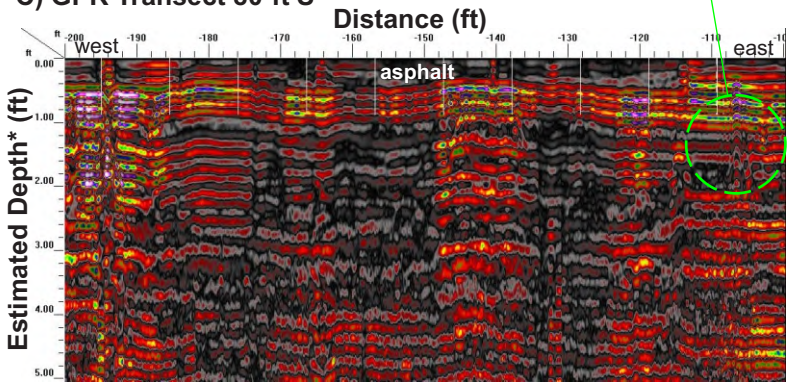


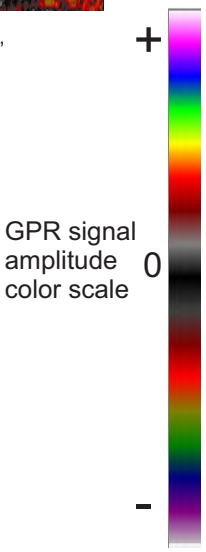
B) GPR Transect 105-ft W



Vicinity of anomalous strong EM 'metal' response - possible small UST other metallic structure/debris

C) GPR Transect 80-ft S





Notes:
GSSI SIR-4000 w/ 400 MHZ antenna GPR system
512 samples/trace; ~10 traces/ft
*Estimated depth scale per assumed permittivity=20
Survey date: July 14, 2020
Refer to Figure Site # 2&3-1 for GPR transect locations

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

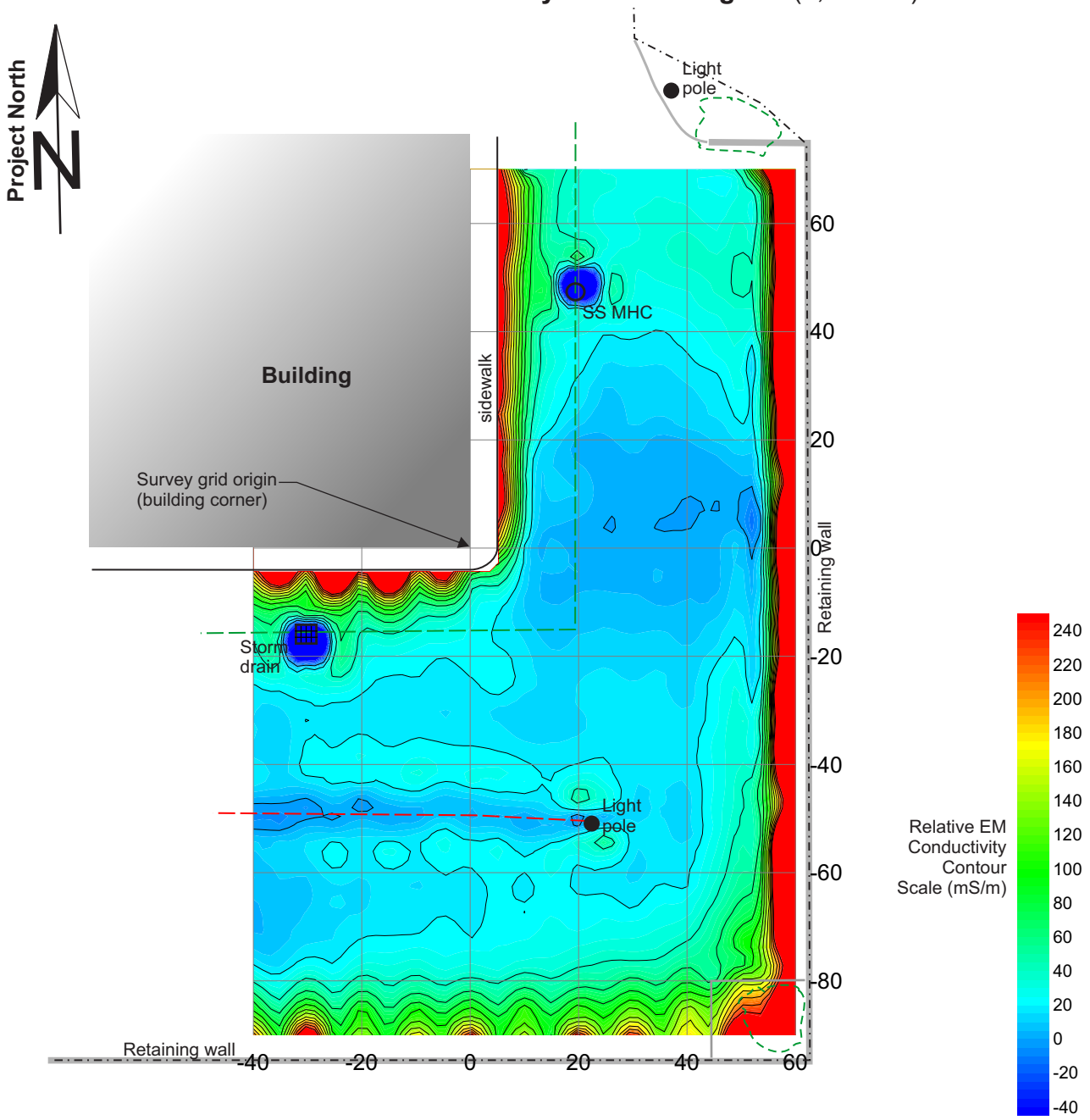
Report of Geophysical Surveys - Former IRS

Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: as shown	

Figure: Site #s 2&3 - 3

Title: Selected GPR Records

Site #4: Relative EM Conductivity Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

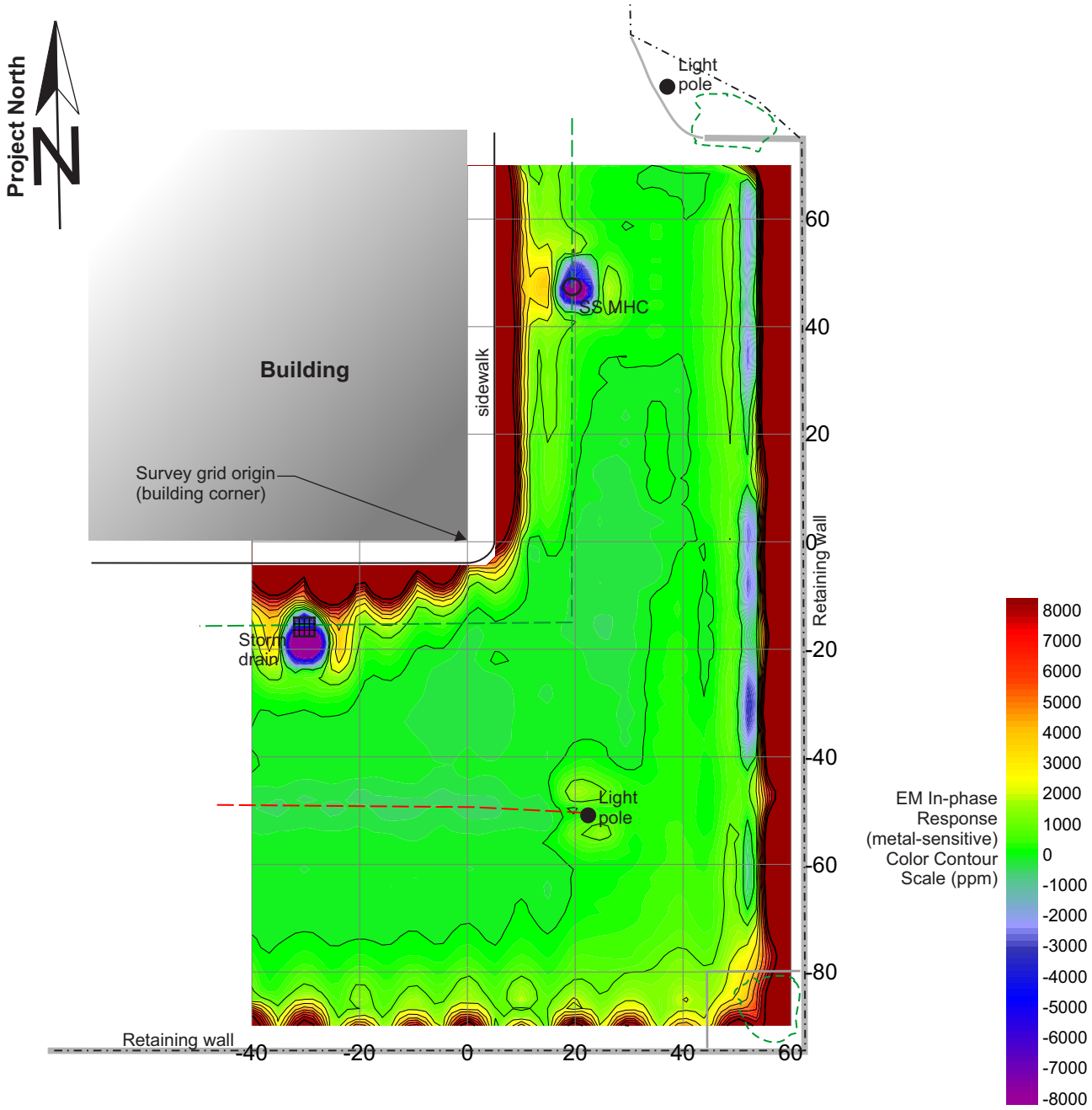
0 10 20 30 40 50

Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1"=30-ft	
Figure: Site#4-1	Title: Site #4: EM Conductivity Contour Diagram		

Site #4: EM In-Phase Response (metal-sensitive) Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

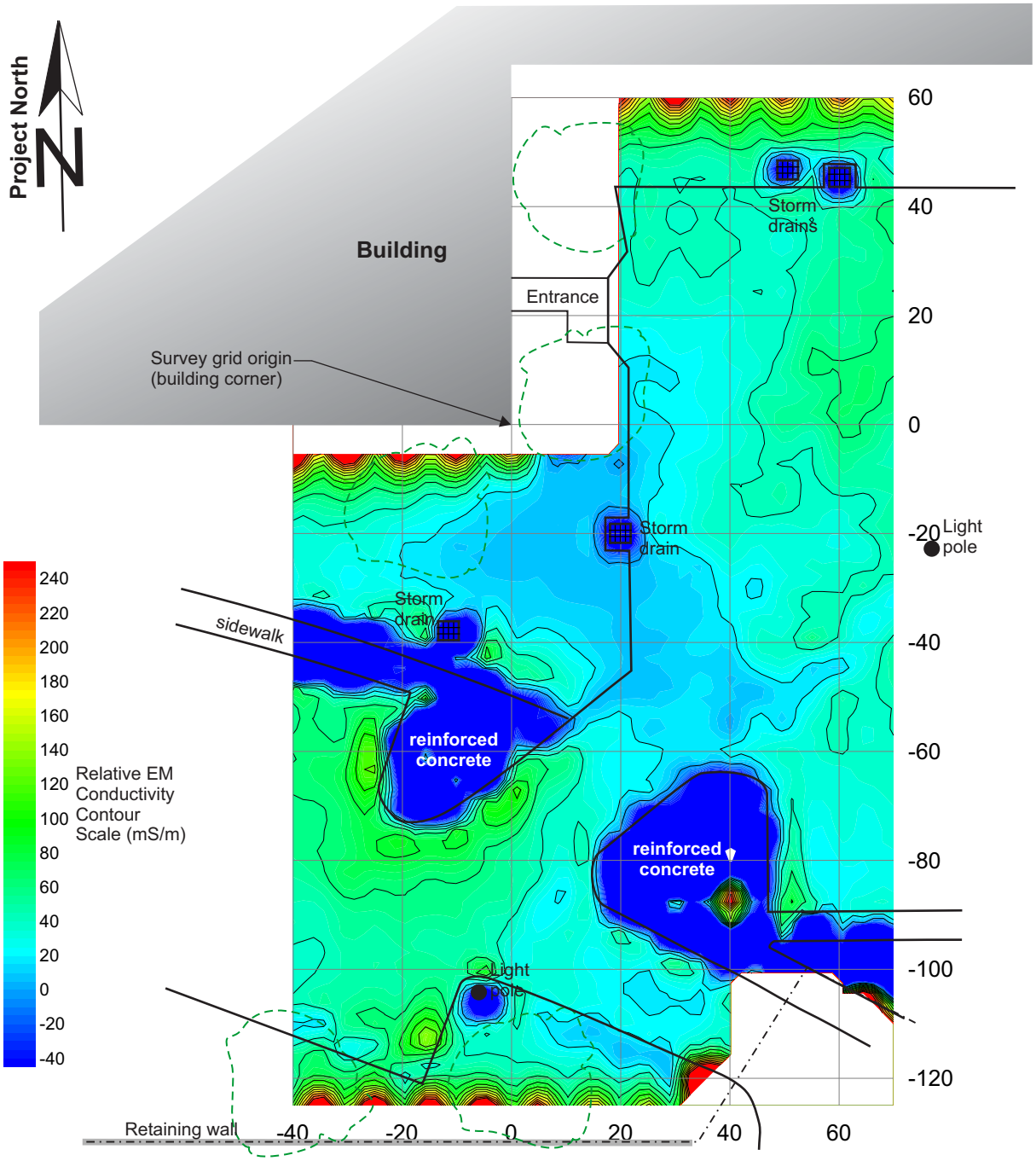
0 10 20 30 40 50

Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project	Report of Geophysical Surveys - Former IRS		
Location	W. 4th Street & Madison Ave., Covington, KY		
Client	ATC Group Services	By dlg	Date 7/16/20
Project No. 01-40048		Checked	Scale 1"=30-ft
Figure Site#4-2	Title Site #4: EM In-Phase Response Contour Diagram		

Site #5: Relative EM Conductivity Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

0 10 20 30 40 50

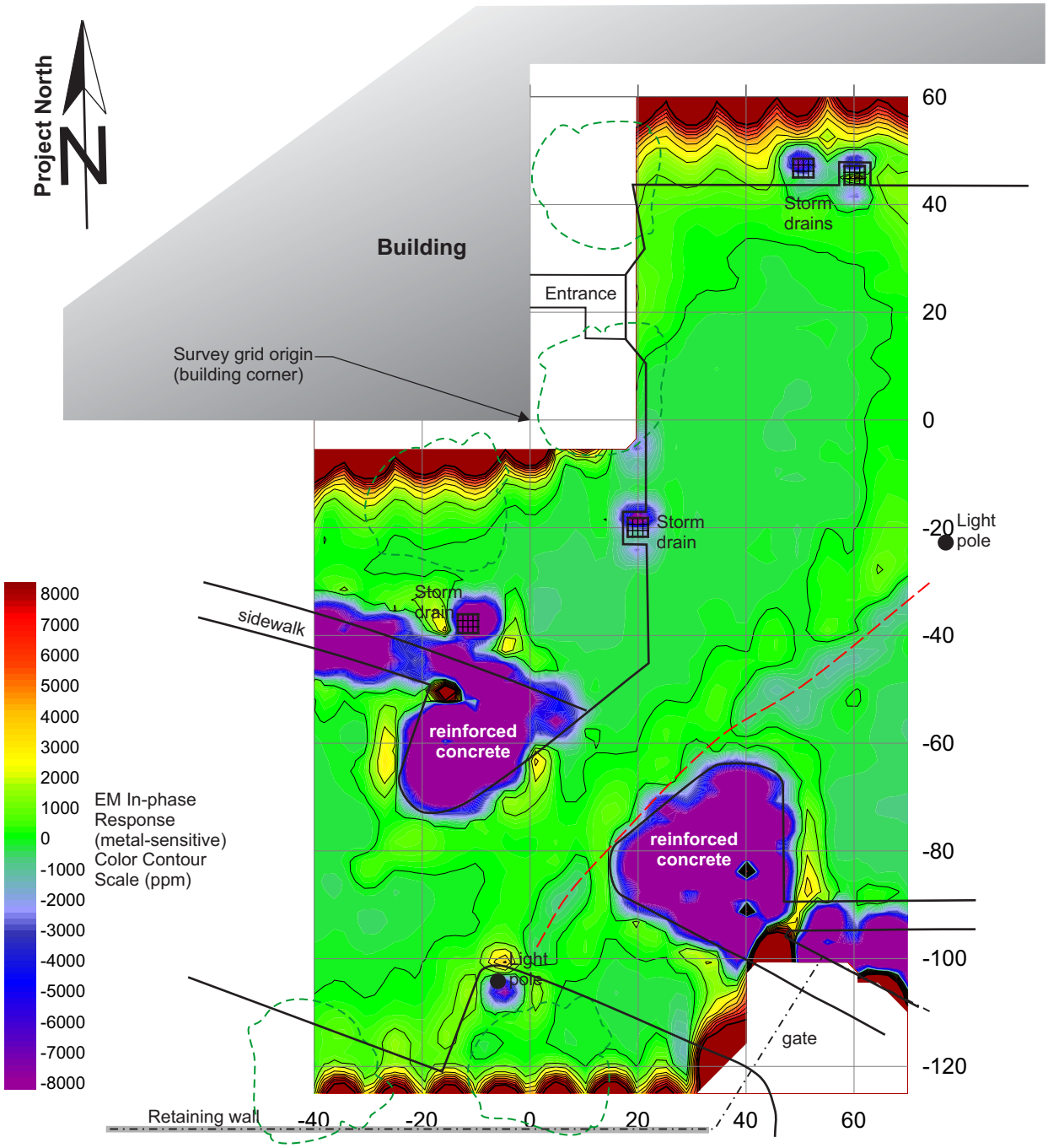
Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1"=30-ft	

Figure: Site#5-1 | Title: Site #5: EM Conductivity Contour Diagram

Site #5: EM In-Phase Response (metal-sensitive) Contour Diagram (9,810 Hz)



Scale: 1" = ~30-ft

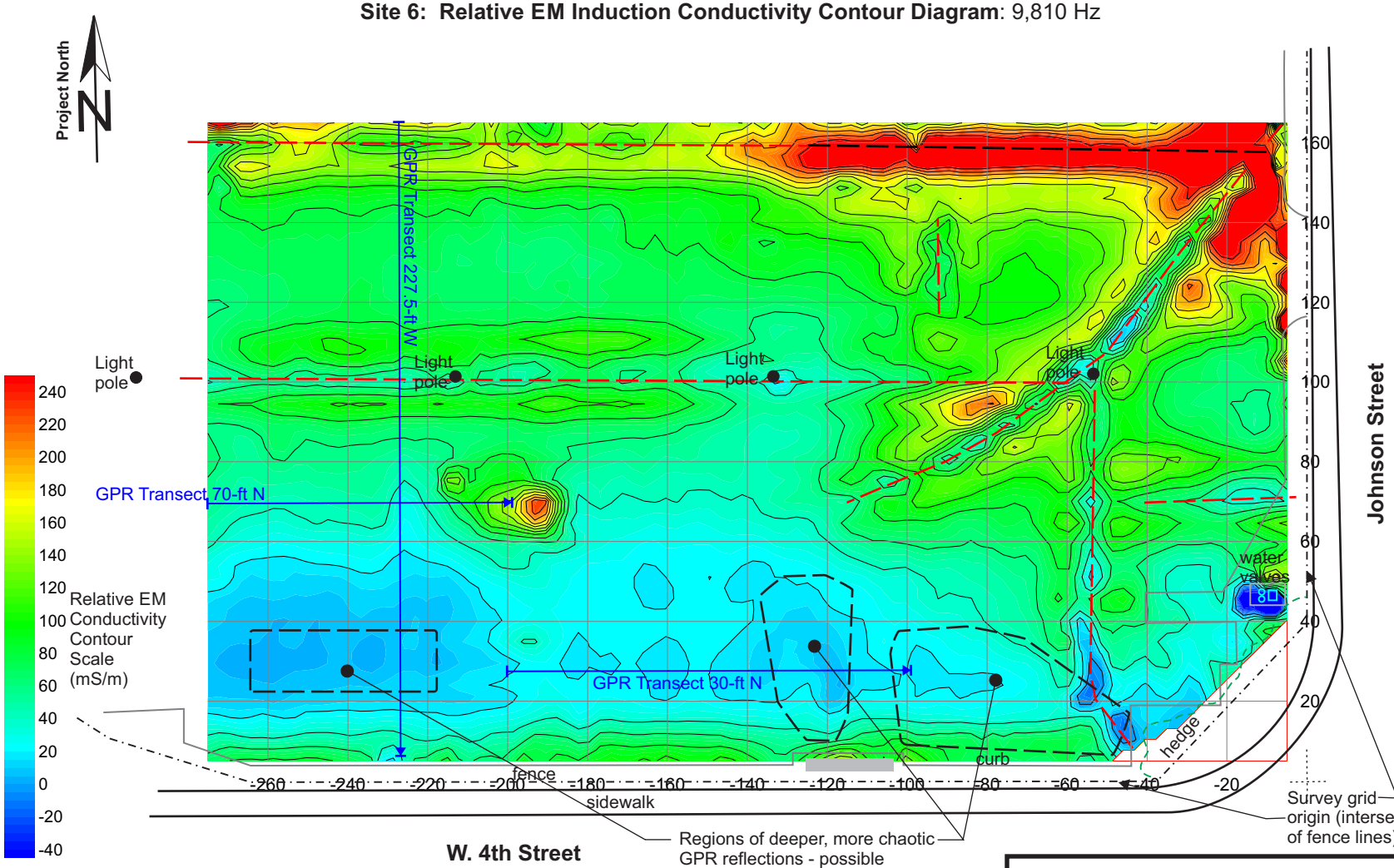
0 10 20 30 40 50

Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,410; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 14, 2020
Locations of site and interpreted features are approximate.

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: 1"=30-ft	
Figure: Site#5-2	Title: Site #5: EM In-Phase Response Contour Diagram		

Site 6: Relative EM Induction Conductivity Contour Diagram: 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 5,000; 10,000 and 15,000 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 15, 2020
Locations of site and interpreted features are approximate.

Scale: 1" =~40-ft

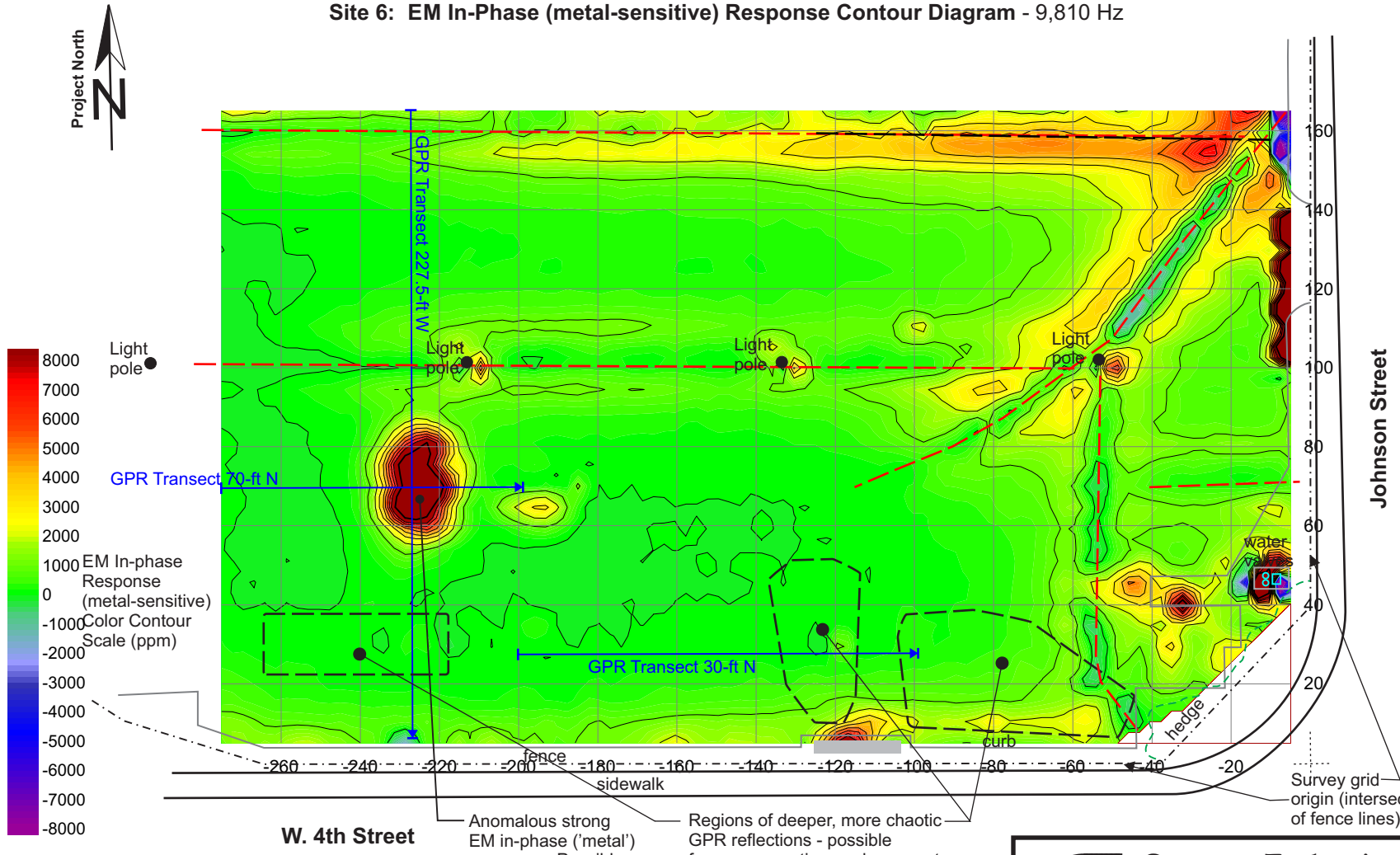
0 20 40 60 80

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client/Owner: ATC Group Services	By: dlg	Date: 7/17/20	
Project No.: 01-40048	Checked:	Scale: 1" = 40-ft	

Figure	Title
Site 6 - 1	Site 6: Site Diagram and EM Conductivity Contour Diagram - 9,810 Hz

Site 6: EM In-Phase (metal-sensitive) Response Contour Diagram - 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 5,000; 10,000 and 15,000 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 15, 2020
Locations of site and interpreted features are approximate.

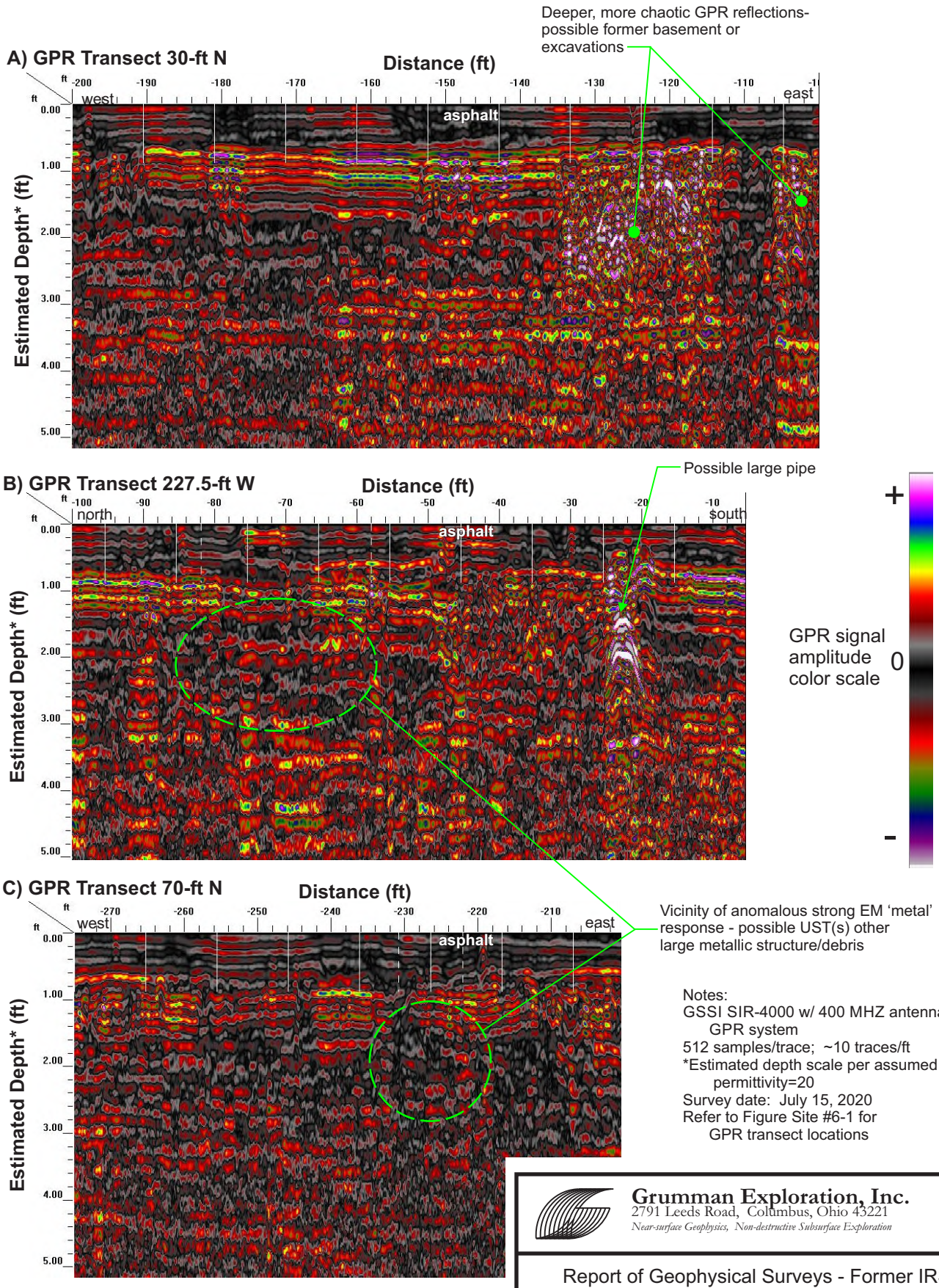
Scale: 1" =~40-ft

0 20 40 60 80

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS		
Location: W. 4th Street & Madison Ave., Covington, KY		
Client/Owner: ATC Group Services	By: dlg	Date: 7/17/20
Project No.: 01-40048	Checked:	Scale: 1" = 40-ft

Figure: Site 6 - 2
Title: Site 6: Site Diagram and EM In-Phase (metal-sensitive) Response - 9,810 Hz



Notes:
GSSI SIR-4000 w/ 400 MHZ antenna GPR system
512 samples/trace; ~10 traces/ft
*Estimated depth scale per assumed permittivity=20
Survey date: July 15, 2020
Refer to Figure Site #6-1 for GPR transect locations

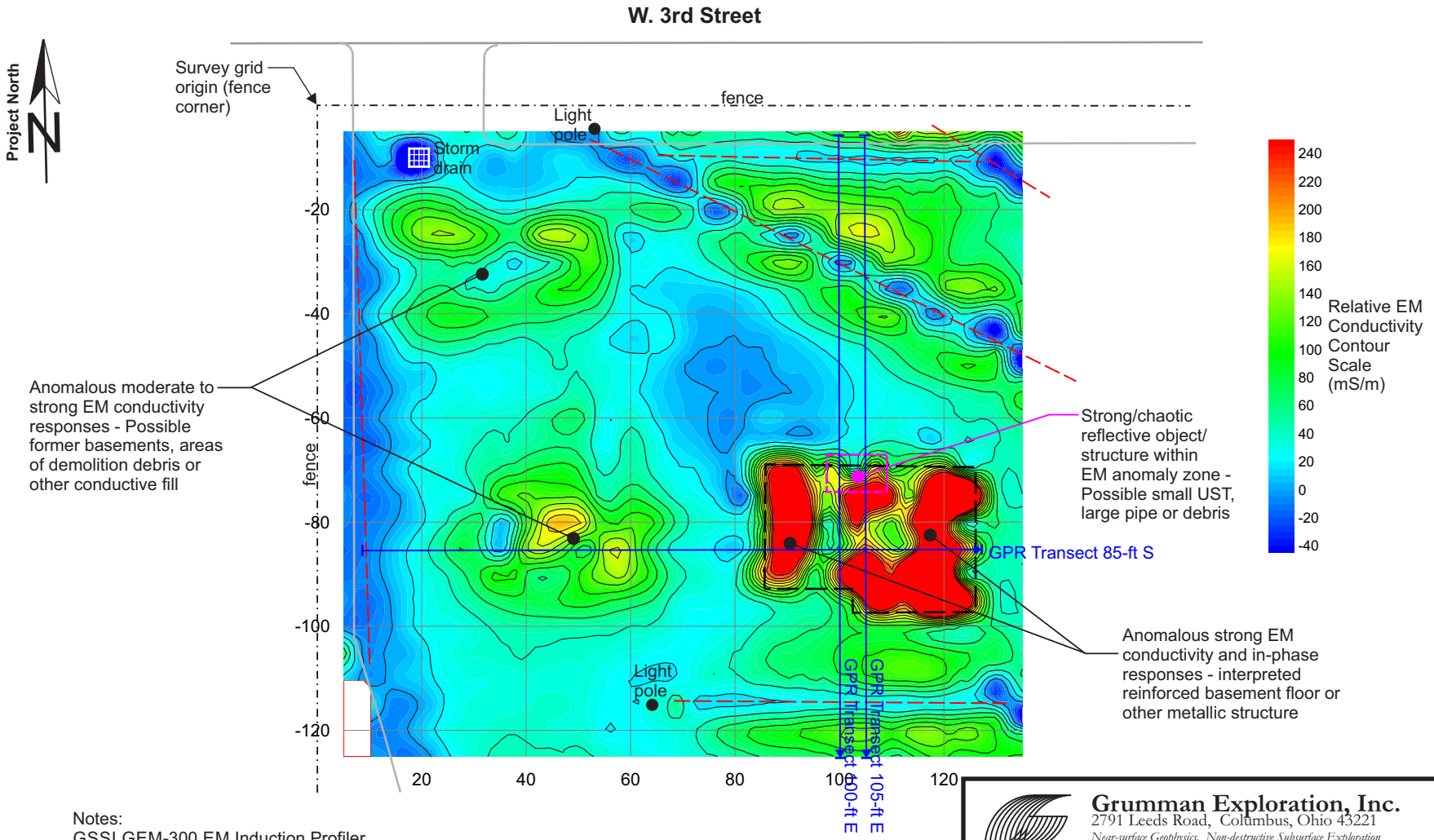
Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Report of Geophysical Surveys - Former IRS

Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: as shown	

Figure: Site #6 - 3
Title: Selected GPR Records

Site #7: Relative EM Induction Conductivity Contour Diagram: 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,420; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 15, 2020
Locations of site and interpreted features are approximate.

Scale: 1" = ~30-ft

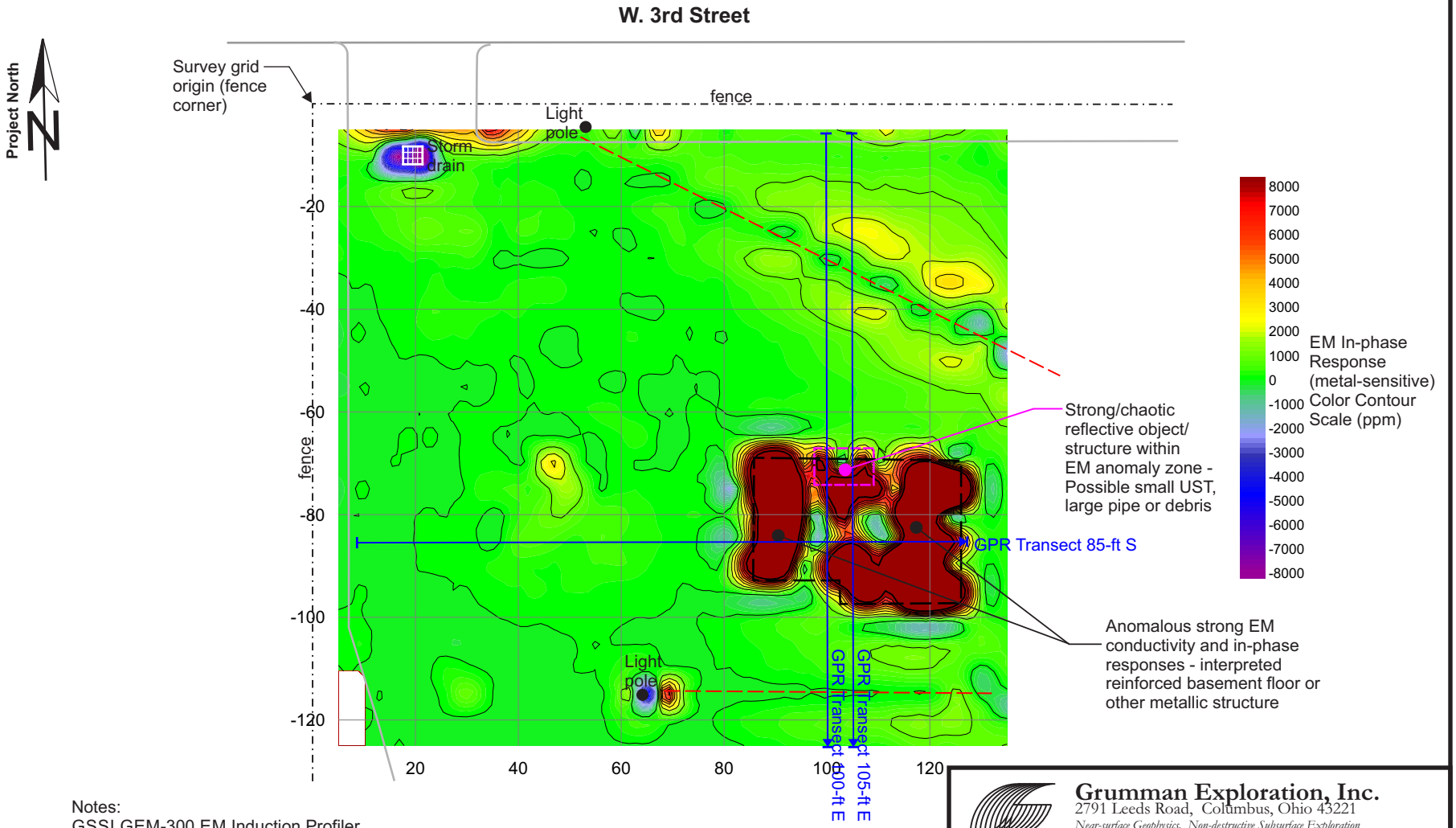
0 10 20 30 40 50

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS			
Location: W. 4th Street & Madison Ave., Covington, KY			
Client/Owner: ATC Group Services	By: dlg	Date: 7/21/20	
Project No.: 01-40048	Checked:	Scale: 1" = 30-ft	

Figure: Site 7 - 1 | Title: Site #7: Site Diagram and EM Conductivity Contour Diagram - 9,810 Hz

Site 7: EM In-Phase (metal-sensitive) Response Contour Diagram - 9,810 Hz



Notes:
GSSI GEM-300 EM Induction Profiler
3 survey freqs: 4,420; 9,810 and 15,030 Hz
5-ft transect spacings, ~2.2-ft station spacing
Survey date: July 15, 2020
Locations of site and interpreted features are approximate.

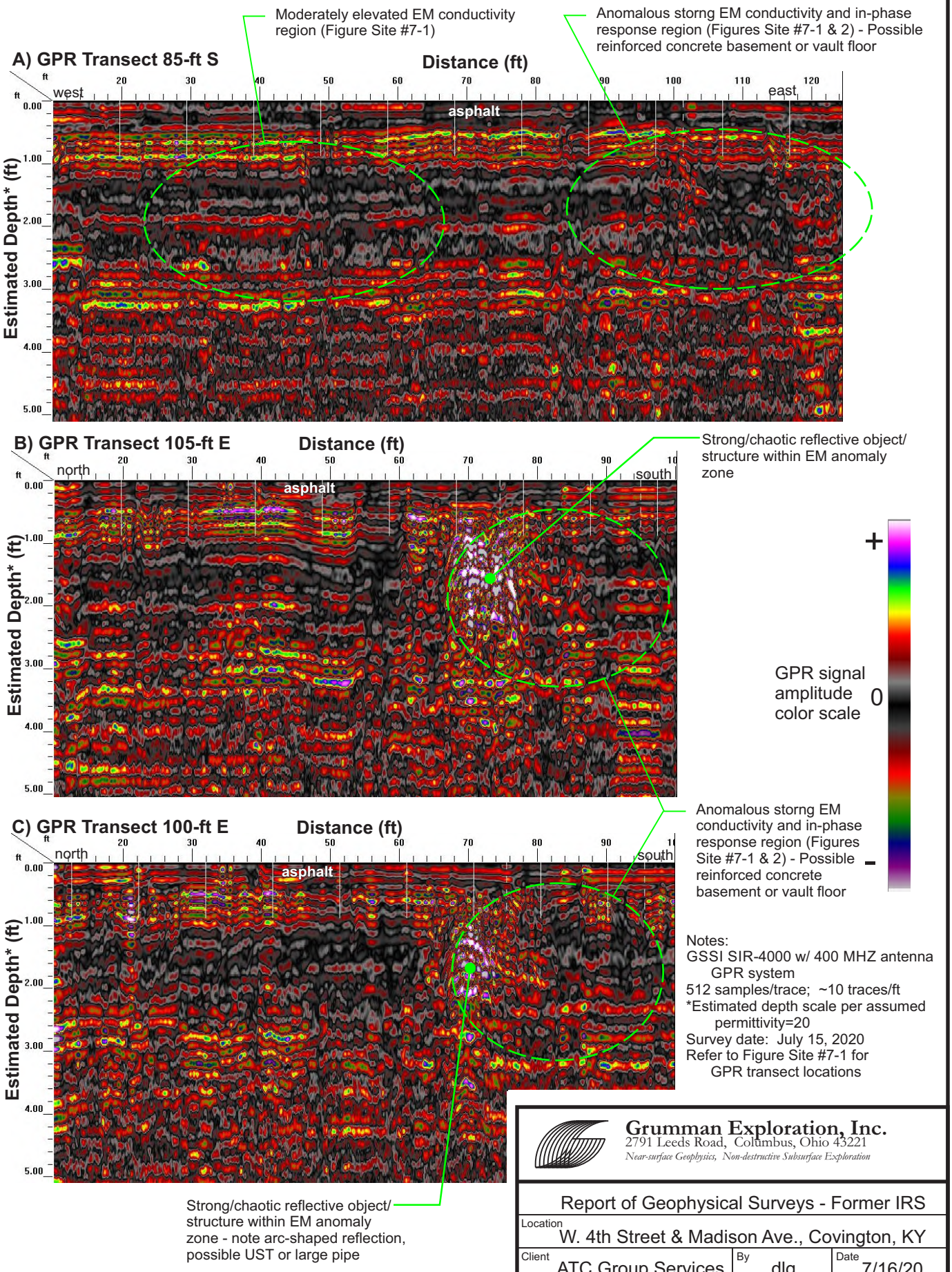
Scale: 1" = ~30-ft

0 10 20 30 40 50

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Project: Report of Geophysical Surveys - Former IRS		
Location: W. 4th Street & Madison Ave., Covington, KY		
Client/Owner: ATC Group Services	By: dlg	Date: 7/21/20
Project No.: 01-40048	Checked:	Scale: 1" = 30-ft

Figure: Site 7 - 2
Title: Site 7: Site Diagram and EM In-Phase (metal-sensitive) Response - 9,810 Hz



Notes:
GSSI SIR-4000 w/ 400 MHZ antenna GPR system
512 samples/trace; ~10 traces/ft
*Estimated depth scale per assumed permittivity=20
Survey date: July 15, 2020
Refer to Figure Site #7-1 for GPR transect locations

Grumman Exploration, Inc.
2791 Leeds Road, Columbus, Ohio 43221
Near-surface Geophysics, Non-destructive Subsurface Exploration

Report of Geophysical Surveys - Former IRS

Location: W. 4th Street & Madison Ave., Covington, KY			
Client: ATC Group Services	By: dlg	Date: 7/16/20	
Project No.: 01-40048	Checked:	Scale: as shown	

Figure: Site #7 - 3
Title: Selected GPR Records

Appendix C

Soil Boring / Monitoring Well Logs

ATC
—AN ATLAS COMPANY—

11121 Canal Road
Cincinnati, Ohio 45241
(513) 771-2112
Fax (513) 782-6908

TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-1**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		1.0	
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		83		Moist		1.2	
CLAY, stiff, brown, moist, and fine sand, with some building debris	4.0		4-6	HA		92		Moist		1.1	
... CLAY as above, building debris thins-out to absent.		5	6-8	CT		92		Moist		1.3	
			8-10	CT		92		Moist		1.8	
... CLAY as above, becomes medium stiff	10.0	10	10-12	CT		92		Moist		1.9	
			12-14	CT		92		Moist		1.8	Sample taken for analysis
... CLAY as above, becomes soft and wet	14.0	15	14-16	CT		83	●	Wet		2.1	
Boring terminated at 16'	16.0										

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools **14.0** ft.
At Completion (in augers) ____ ft.
At Completion (open hole) ____ ft.
After ____ hours ____ ft.
After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

ATC
—AN ATLAS COMPANY—

11121 Canal Road
Cincinnati, Ohio 45241
(513) 771-2112
Fax (513) 782-6908

TEST BORING LOG

CLIENT: Graydon Head & Ritchie
PROJECT NAME: Former IRS Building
PROJECT ADDRESS: 100 W 4th Street
PROJECT LOCATION: Covington, KY

BORING #: SB-2
JOB #: 241EN00715
DRAWN BY: N. Stewart
APPROVED BY: M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		1.8	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		92		Moist		2.3	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		2.6	
			6-8	CT		92		Moist		3.8	Sample taken for analysis
			8-10	CT		92		Moist		3.8	
		10	10-12	CT		92		Moist		1.2	
	12.0										
... CLAY as above, becomes medium stiff			12-14	CT		92		Moist		1.7	
			14-16	CT		92		Moist		0.5	
		15	16-18	CT		92		Moist		1.6	
	18.0						●				
... CLAY as above, becomes soft and wet			18-20	CT		83		Wet		1.6	
	20.0	20									
Boring terminated at 20'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools 18.0 ft.
At Completion (in augers) ft.
At Completion (open hole) ft.
After hours ft.
After hours ft.
Cave Depth ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

ATC
—AN ATLAS COMPANY—

11121 Canal Road
Cincinnati, Ohio 45241
(513) 771-2112
Fax (513) 782-6908

TEST BORING LOG

CLIENT: Graydon Head & Ritchie
PROJECT NAME: Former IRS Building
PROJECT ADDRESS: 100 W 4th Street
PROJECT LOCATION: Covington, KY

BORING #: SB-3
JOB #: 241EN00715
DRAWN BY: N. Stewart
APPROVED BY: M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		67		Dry		4.9	
FILL, loose, brown, dry, with some building debris			2-4	HA		42		Dry		6.3	
			4-6	HA		33		Dry		3.3	
	6.0	5									Sample taken for analysis
No Recovery			6-8	CT		No Recovery		NA		NA	
	8.0										
CLAY, soft, black, moist, and fine sand, sewage odor	10.0		8-10	CT		75		Moist		3.4	
... CLAY as above, transitions to grey, odor trails-off to absent		10	10-12	CT		83		Moist		4.9	Sample taken for analysis
			12-14	CT		83		Moist		6.1	Sample taken for analysis
			14-16	CT		83		Moist		5.4	
	16.0	15									
... CLAY as above, becomes medium stiff, transitions to brown			16-18	CT		83		Moist		3.0	
			18-20	CT		83		Moist		0.8	
		20	20-22	CT		83		Moist		0.6	
	22.0										
... CLAY as above, becomes soft and wet			22-24	CT		83		Wet		4.9	
	24.0						●				
Boring terminated at 24'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools 24.0 ft.
At Completion (in augers) ft.
At Completion (open hole) ft.
After hours ft.
After hours ft.
Cave Depth ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-4**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		4.2	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		92		Moist		4.5	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		1.5	Sample taken for analysis
			6-8	CT		92		Moist		2.1	
			8-10	CT		92		Moist		1.8	
	10.0	10	10-12	CT		92		Moist		1.9	
... CLAY as above, becomes medium stiff			12-14	CT		92		Moist		1.7	
		15	14-16	CT		92		Moist		1.8	
			16-18	CT		92		Moist		1.8	
	18.0						●				
... CLAY as above, becomes soft and wet			18-20	CT		83		Wet		2.1	
	20.0	20									
Boring terminated at 20'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools **18.0** ft.
At Completion (in augers) ____ ft.
At Completion (open hole) ____ ft.
After ____ hours ____ ft.
After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-5**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		2.2	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		92		Moist		2.6	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		2.6	
			6-8	CT		92		Moist		1.5	Sample taken for analysis
			8-10	CT		92		Moist		1.7	
		10	10-12	CT		92		Moist		2.1	
			12-14	CT		92		Moist		0.8	
		15	14-16	CT		92		Moist		2.2	
	16.0										
... CLAY as above, thin fine sand seams interspersed throughout			16-18	CT		75		Moist		2.9	
			18-20	CT		67		Moist		2.8	
	20.0	20					●				
... CLAY as above, becomes soft and wet			20-22	CT		75		Moist		2.2	
			22-24	CT		83		Wet		1.6	
	24.0										
Boring terminated at 24'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools **20.0** ft.
At Completion (in augers) ____ ft.
At Completion (open hole) ____ ft.
After ____ hours ____ ft.
After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-6**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		3.3	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		92		Moist		2.5	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		83		Moist		2.9	
	6.0		6-8	CT		67		Wet		4.1	
... CLAY as above, becomes soft and wet	8.0										Sample taken for analysis
... CLAY as above, becomes medium stiff and moist			8-10	CT		83		Moist		2.5	
		10	10-12	CT		92		Moist		4.0	
			12-14	CT		92		Moist		4.2	
			14-16	CT		92		Moist		4.4	
		15	16-18	CT		92		Moist		3.6	
	18.0						●				
... CLAY as above, becomes soft and wet			18-20	CT		75		Wet		3.2	
	20.0	20									
Boring terminated at 20'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools **18.0** ft.
▲ At Completion (in augers) ____ ft.
▽ At Completion (open hole) ____ ft.
▼ After ____ hours ____ ft.
▼ After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: Graydon Head & Ritchie
PROJECT NAME: Former IRS Building
PROJECT ADDRESS: 100 W 4th Street
PROJECT LOCATION: Covington, KY

BORING #: SB-7
JOB #: 241EN00715
DRAWN BY: N. Stewart
APPROVED BY: M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		2.8	
FILL, medium dense, grey, dry, with some medium gravel	2.0		2-4	HA		92		Moist		1.7	
CLAY, stiff, brown, moist, and fine sand, with some building debris		5	4-6	HA		92		Moist		2.7	
			6-8	CT		92		Moist		3.5	
	8.0		8-10	CT		92		Moist		2.7	
... CLAY as above, building debris absent		10	10-12	CT		92		Moist		2.8	
			12-14	CT		92		Moist		2.0	
		15	14-16	CT		92		Moist		1.3	
			16-18	CT		92		Moist		2.8	
			18-20	CT		92		Moist		1.1	
		20	20-22	CT		92		Moist		0.8	
			22-24	CT		92		Moist		1.1	
			24-26	CT		83		Moist		1.4	
	26.0	25					●				
... CLAY as above, becomes soft and wet			26-28	CT		75		Wet		1.4	
	28.0										
Boring terminated at 28'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools 26.0 ft.
At Completion (in augers) ft.
At Completion (open hole) ft.
After hours ft.
After hours ft.
Cave Depth ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: Graydon Head & Ritchie
PROJECT NAME: Former IRS Building
PROJECT ADDRESS: 100 W 4th Street
PROJECT LOCATION: Covington, KY

BORING #: SB-8
JOB #: 241EN00715
DRAWN BY: N. Stewart
APPROVED BY: M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		67		Dry		1.8	
FILL, medium dense, grey, dry, with some medium gravel	2.0		2-4	HA		75		Dry		1.7	
SAND, loose, brown, dry, fine-grained		5	4-6	HA		75		Dry		1.9	
	6.0		6-8	CT		75		Dry		1.6	
... SAND as above, becomes medium dense	8.0		8-10	CT		83		Moist		1.2	
... SAND as above, and soft, brown, moist clay	10.0	10	10-12	CT		75	●	Wet		1.0	Sample taken for analysis
CLAY, soft, black, wet, and fine sand	12.0		12-14	CT		75		Moist		2.3	
... CLAY as above, transitions to brown, becomes moist	14.0		14-16	CT		83		Moist		2.4	
... CLAY as above, becomes medium stiff	16.0	15	16-18	CT		92		Moist		2.4	
... CLAY as above, transitions to grey			18-20	CT		92		Moist		2.7	
		20	20-22	CT		92		Moist		1.8	
	22.0		22-24	CT		92		Moist		0.6	
... CLAY as above, transitions to brown		25	24-26	CT		92		Moist		0.5	
			26-28	CT		92		Moist		2.0	
	28.0										
Boring terminated at 28'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools 10.0 ft.
At Completion (in augers) ____ ft.
At Completion (open hole) ____ ft.
After ____ hours ____ ft.
After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-9**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started: **7/16/20**
Date Completed: **7/16/20**
Drill Foreman: **EnviroCore**
Inspector: **N. Stewart**
Boring Method: **HA/HP**
Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		0.0	
FILL, medium dense, grey to brown, dry, with some medium gravel	1.0		2-4	HA		92		Moist		3.3	
CLAY, stiff, brown, moist, and fine sand	4.0		4-6	HA		83		Moist		1.7	
... CLAY as above, with some building debris		5	6-8	CT		83		Moist		3.0	
			8-10	CT		83		Moist		4.0	
		10	10-12	CT		83		Moist		1.1	Sample taken for analysis
	12.0		12-14	CT		92		Moist		1.5	
... CLAY as above, building debris thins-out	14.0		14-16	CT		92		Moist		2.1	
... CLAY as above, building debris absent		15	16-18	CT		92		Moist		2.1	
			18-20	CT		92		Moist		1.6	
		20	20-22	CT		92		Moist		1.2	
			22-24	CT		92		Moist		1.6	
	25.0		24-26	CT		75	●	Moist		1.6	
... CLAY as above, becomes medium stiff and wet		25	26-28	CT		75		Wet		2.0	
	28.0										
Boring terminated at 28'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools **25.0** ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT **Graydon Head & Ritchie**
PROJECT NAME **Former IRS Building**
PROJECT ADDRESS **100 W 4th Street**
PROJECT LOCATION **Covington, KY**

BORING # **SB-10**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started **7/16/20**
Date Completed **7/16/20**
Drill Foreman **EnviroCore**
Inspector **N. Stewart**
Boring Method **HA/HP**

Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
TOPSOIL, brown, dry, with organics	1.0		0-2	HA		83		Dry		0.0	
FILL, medium dense, grey, moist, with some building debris			2-4	HA		83		Moist		1.5	
		5	4-6	HA		92		Moist		1.2	
			6-8	CT		92		Moist		2.1	
CLAY, stiff, brown, moist, and fine sand	8.0		8-10	CT		92		Moist		1.3	Sample taken for analysis
		10	10-12	CT		92		Moist		1.0	
Boring terminated at 12'	12.0										

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-11**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		1.2	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		83		Moist		4.0	
CLAY, stiff, brown, moist, and fine sand	4.0		4-6	HA		92		Moist		3.2	
FILL, medium dense, dark brown, moist, with some building debris	6.0	5	6-8	CT		92		Moist		2.9	Sample taken for analysis
CLAY, stiff, brown, moist, and fine sand	8.0		8-10	CT		92		Moist		2.9	
FILL, medium dense, black, moist	10.0	10	10-12	CT		0		NA		NA	
No Recovery	12.0										
Boring terminated at 12'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-12**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started: **7/17/20**
Date Completed: **7/17/20**
Drill Foreman: **EnviroCore**
Inspector: **N. Stewart**
Boring Method: **HA/HP**
Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		92		Dry		16.2	
FILL, medium dense, grey, dry, with some medium gravel	2.0		2-4	HA		92		Moist		5.8	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		6.3	
	6.0		6-8	CT		92		Moist		6.0	Sample taken for analysis
... CLAY as above, with multiple thin fine sand seams throughout			8-10	CT		92		Moist		4.6	
		10	10-12	CT		92		Moist		4.7	
	12.0										
Boring terminated at 12'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-13**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		0.2	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		92		Moist		2.8	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		2.1	Sample taken for analysis
			6-8	CT		92		Moist		1.9	
			8-10	CT		92		Moist		1.9	
		10	10-12	CT		92		Moist		1.7	
Boring terminated at 12'	12.0										

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-14**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started: **7/16/20**
Date Completed: **7/16/20**
Drill Foreman: **EnviroCore**
Inspector: **N. Stewart**
Boring Method: **HA/HP**

Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		75		Dry		7.5	Sample taken for analysis
FILL, dense, black, moist			2-4	HA		75		Moist		1.8	
	4.0										
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		1.8	
			6-8	CT		92		Moist		1.9	
			8-10	CT		92		Moist		1.7	
		10	10-12	CT		92		Moist		2.0	
	12.0										
Boring terminated at 12'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: Graydon Head & Ritchie
PROJECT NAME: Former IRS Building
PROJECT ADDRESS: 100 W 4th Street
PROJECT LOCATION: Covington, KY

BORING #: SB-15
JOB #: 241EN00715
DRAWN BY: N. Stewart
APPROVED BY: M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		3.8	
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		75		Moist		3.8	
SAND, dense, brown, moist, fine-grained, with little clay, clay content increases with depth		5	4-6	HA		75		Moist		2.6	
			6-8	CT		75		Moist		1.6	
			8-10	CT		75		Moist		2.4	
		10	10-12	CT		75		Moist		2.8	
			12-14	CT		75		Moist		4.3	
	14.0		14-16	CT		92		Moist		1.7	Sample taken for analysis
CLAY, soft, brown, moist, and fine sand		15	16-18	CT		92		Moist		1.5	
	18.0		18-20	CT		83	●	Wet		1.2	
... CLAY as above, becomes wet	20.0	20									
Boring terminated at 20'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
● Noted on Drilling Tools 18.0 ft.
At Completion (in augers) ft.
At Completion (open hole) ft.
After hours ft.
After hours ft.
Cave Depth ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT **Graydon Head & Ritchie**
PROJECT NAME **Former IRS Building**
PROJECT ADDRESS **100 W 4th Street**
PROJECT LOCATION **Covington, KY**

BORING # **SB-16**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started **7/16/20**
Date Completed **7/16/20**
Drill Foreman **EnviroCore**
Inspector **N. Stewart**
Boring Method **HA/HP**

Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
TOPSOIL, medium dense, brown, moist, with organics	0.5		0-2	HA		92		Moist		1.7	Sample taken for analysis
CLAY, stiff, brown, moist, and fine sand			2-4	HA		92		Moist		1.4	
		5	4-6	HA		92		Moist		1.4	
	6.0										
Boring terminated at 6'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools _____ ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-17**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started: **7/16/20**
Date Completed: **7/16/20**
Drill Foreman: **EnviroCore**
Inspector: **N. Stewart**
Boring Method: **HA/HP**
Hammer Wt. _____ lbs.
Hammer Drop _____ in.
Spoon Sampler OD _____ in.
Rock Core Dia. _____ in.
Shelby Tube OD _____ in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		0.8	
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		92		Moist		1.2	
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		92		Moist		1.8	
			6-8	CT		92		Moist		1.8	
			8-10	CT		92		Moist		1.7	
		10	10-12	CT		92		Moist		1.8	
	12.0										
... CLAY as above, becomes medium stiff			12-14	CT		92		Moist		1.9	
			14-16	CT		92		Moist		2.0	
		15	16-18	CT		92		Moist		2.1	
			18-20	CT		92		Moist		1.8	Sample taken for analysis
	20.0						●				
... CLAY as above, becomes soft and wet		20	20-22	CT		83		Wet		1.8	
	22.0										
... CLAY as above, becomes medium stiff and grey			22-24	CT		83		Wet		2.6	
	24.0										
Boring terminated at 24'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools **20.0** ft.
At Completion (in augers) _____ ft.
At Completion (open hole) _____ ft.
After _____ hours _____ ft.
After _____ hours _____ ft.
Cave Depth _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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TEST BORING LOG

CLIENT: **Graydon Head & Ritchie**
PROJECT NAME: **Former IRS Building**
PROJECT ADDRESS: **100 W 4th Street**
PROJECT LOCATION: **Covington, KY**

BORING #: **SB-18**
JOB #: **241EN00715**
DRAWN BY: **N. Stewart**
APPROVED BY: **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/17/20	Hammer Wt.	lbs.
Date Completed	7/17/20	Hammer Drop	in.
Drill Foreman	EnviroCore	Spoon Sampler OD	in.
Inspector	N. Stewart	Rock Core Dia.	in.
Boring Method	HA/HP	Shelby Tube OD	in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	Recovery %	Groundwater	Moisture Content	Standard Penetration Test N, Blows/6 inches	Total Photoionizable Vapors (ppm)	Remarks
ASPHALT	0.3		0-2	HA		83		Dry		4.9	
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		92		Moist		4.4	
CLAY, stiff, brown, moist, and fine sand, sand content increases with depth		5	4-6	HA		92		Moist		5.3	
	6.0		6-8	CT		75		Moist		4.7	Sample taken for analysis
SAND, medium dense, brown, moist, fine-grained, with some clay			8-10	CT		75		Moist		4.2	
		10	10-12	CT		75		Moist		2.8	
	12.0						●				
... SAND as above, becomes wet			12-14	CT		67		Wet		2.5	
	14.0										
... SAND as above, becomes moist		15	14-16	CT		75		Moist		1.4	
	16.0										
Boring terminated at 16'											

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
MC - Macrocore

Moisture Content
D = Dry
M = Moist
W = Wet

Depth to Groundwater
Noted on Drilling Tools **12.0** ft.
At Completion (in augers) ____ ft.
At Completion (open hole) ____ ft.
After ____ hours ____ ft.
After ____ hours ____ ft.
Cave Depth ____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
DC - Driving Casing
MD - Mud Drilling
HA - Hand Auger
HP - Hydraulic Push

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-1**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	20 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	TEST DATA: PID (PPM)	TEST DATA: Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		1.0				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		1.2				bentonite seal
CLAY, stiff, brown, moist, and fine sand, with some building debris	4.0	5	4-6	HA		1.1				
... CLAY as above, building debris thins-out to absent.			6-8	CT		1.3				
			8-10	CT		1.8				2" PVC riser
... CLAY as above, becomes medium stiff	10.0	10	10-12	CT		1.9				Sample taken for analysis
			12-14	CT		1.8		+		
... CLAY as above, becomes soft and wet	14.0	15	14-16	CT		2.1		○		filer pack
Boring terminated at 16'	16.0									2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **14.0** ft.
+ At Survey **13.0** ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-2**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	25 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		1.8				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		2.3				bentonite seal
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		2.6				
			6-8	CT		3.8				Sample taken for analysis
			8-10	CT		3.8				
		10	10-12	CT		1.2				
	12.0									
... CLAY as above, becomes medium stiff			12-14	CT		1.7				
		15	14-16	CT		0.5				2" PVC riser
			16-18	CT		1.6				
	18.0									
... CLAY as above, becomes soft and wet			18-20	CT		1.6		○		filter pack
	20.0	20								
Boring terminated at 20'										2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **18.0** ft.
+ At Survey _____ ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-3**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	29 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	TEST DATA: PID (PPM)	TEST DATA: Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		4.9				manhole and concrete pad
FILL, loose, brown, dry, with some building debris			2-4	HA		6.3				bentonite seal
		5	4-6	HA		3.3				Sample taken for analysis
No Recovery	6.0		6-8	CT		NA				
	8.0		8-10	CT		3.4				
CLAY, soft, black, moist, and fine sand, sewage odor	10.0	10	10-12	CT		4.9				Sample taken for analysis
... CLAY as above, transitions to grey, odor trails-off to absent			12-14	CT		6.1				Sample taken for analysis
			14-16	CT		5.4				
	16.0	15	16-18	CT		3.0				
... CLAY as above, becomes medium stiff, transitions to brown			18-20	CT		0.8				2" PVC riser
		20	20-22	CT		0.6				
	22.0									
... CLAY as above, becomes soft and wet			22-24	CT		4.9		+		
	24.0							○		filter pack
Boring terminated at 24'										2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **24.0** ft.
+ At Survey **22.4** ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT	Graydon Head & Ritchie	BORING #	MW-4
GEOLOGIST	Michael Luessen	JOB #	241EN00715
PROJECT NAME	Former IRS Building	DRAWN BY	N. Stewart
PROJECT LOCATION	100 W 4th Street	APPROVED BY	M. Luessen
	Covington, KY		

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	22 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		4.2				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		4.5				bentonite seal; Sample taken for analysis
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		1.5				
			6-8	CT		2.1				
			8-10	CT		1.8				
	10.0	10	10-12	CT		1.9				
... CLAY as above, becomes medium stiff			12-14	CT		1.7				2" PVC riser
		15	14-16	CT		1.8				
			16-18	CT		1.8				filter pack
	18.0									
... CLAY as above, becomes soft and wet			18-20	CT		2.1		○ +		2" PVC screen
	20.0	20								
Boring terminated at 20'										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 18.0 ft.
+ At Survey 19.0 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

—AN ATLAS COMPANY—

11121 Canal Road
Cincinnati, Ohio 45241
(513) 771-2112
Fax (513) 782-6908

WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-5**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Casing Length	29 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		2.2				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		2.6				bentonite seal
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		2.6				Sample taken for analysis
			6-8	CT		1.5				
			8-10	CT		1.7				
		10	10-12	CT		2.1				
			12-14	CT		0.8				
			14-16	CT		2.2				
	16.0	15	16-18	CT		2.9				
... CLAY as above, thin fine sand seams interspersed throughout			18-20	CT		2.8		+		2" PVC riser
	20.0	20	20-22	CT		2.2		○		
... CLAY as above, becomes soft and wet			22-24	CT		1.6				
	24.0									filter pack
Boring terminated at 24'										2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **20.0** ft.
+ At Survey **18.9** ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-6**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Casing Length	25 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		3.3				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		2.5				bentonite seal
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		2.9				
... CLAY as above, becomes soft and wet	6.0		6-8	CT		4.1				Sample taken for analysis
... CLAY as above, becomes medium stiff and moist	8.0		8-10	CT		2.5				
		10	10-12	CT		4.0				
			12-14	CT		4.2				
		15	14-16	CT		4.4				2" PVC riser
			16-18	CT		3.6				
... CLAY as above, becomes soft and wet	18.0		18-20	CT		3.2		○		
Boring terminated at 20'	20.0	20						+		filter pack
										2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 18.0 ft.
+ At Survey 20.0 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-7**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	28 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	TEST DATA: PID (PPM)	TEST DATA: Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		2.8				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	2.0		2-4	HA		1.7				bentonite seal
CLAY, stiff, brown, moist, and fine sand, with some building debris		5	4-6	HA		2.7				
			6-8	CT		3.5				
	8.0		8-10	CT		2.7				
... CLAY as above, building debris absent		10	10-12	CT		2.8				
			12-14	CT		2.0				
		15	14-16	CT		1.3				
			16-18	CT		2.8				
			18-20	CT		1.1		+		2" PVC riser
		20	20-22	CT		0.8				
			22-24	CT		1.1				filter pack
		25	24-26	CT		1.4				
	26.0							○		2" PVC screen
... CLAY as above, becomes soft and wet			26-28	CT		1.4				
	28.0									
Boring terminated at 28'										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 26.0 ft.
+ At Survey 18.1 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-8**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/20/20	Hammer Wt.	lbs.
Date Completed	7/20/20	Casing Length	20 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		1.8				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	2.0		2-4	HA		1.7				bentonite seal
SAND, loose, brown, dry, fine-grained		5	4-6	HA		1.9				
... SAND as above, becomes medium dense	6.0		6-8	CT		1.6				
... SAND as above, and soft, brown, moist clay	8.0		8-10	CT		1.2				
CLAY, soft, black, wet, and fine sand	10.0	10	10-12	CT		1.0		○		Sample taken for analysis 2" PVC riser
... CLAY as above, transitions to brown, becomes moist	12.0		12-14	CT		2.3		+		
... CLAY as above, becomes medium stiff	14.0		14-16	CT		2.4				filter pack
... CLAY as above, transitions to grey	16.0	15	16-18	CT		2.4				
			18-20	CT		2.7				2" PVC screen
		20	20-22	CT		1.8				end cap
... CLAY as above, transitions to brown	22.0		22-24	CT		0.6				
		25	24-26	CT		0.5				
			26-28	CT		2.0				
Boring terminated at 28'	28.0									

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 10.0 ft.
+ At Survey 12.3 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-9**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Casing Length	32 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	TEST DATA: PID (PPM)	TEST DATA: Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		0.0				manhole and concrete pad
FILL, medium dense, grey to brown, dry, with some medium gravel	1.0		2-4	HA		3.3				bentonite seal
CLAY, stiff, brown, moist, and fine sand	4.0		4-6	HA		1.7				
... CLAY as above, with some building debris		5	6-8	CT		3.0				
			8-10	CT		4.0				Sample taken for analysis
		10	10-12	CT		1.1				
... CLAY as above, building debris thins-out	12.0		12-14	CT		1.5				
... CLAY as above, building debris absent	14.0	15	14-16	CT		2.1				
			16-18	CT		2.1				
			18-20	CT		1.6				
		20	20-22	CT		1.2				
			22-24	CT		1.6		+		2" PVC riser
... CLAY as above, becomes medium stiff and wet	25.0	25	24-26	CT		1.6		○		
			26-28	CT		2.0				filter pack
Boring terminated at 28'	28.0									2" PVC screen
										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **25.0** ft.
+ At Survey **23.8** ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

ATC
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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-10**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/17/20	Hammer Wt.	lbs.
Date Completed	7/17/20	Casing Length	16 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics Recovery Graphics	TEST DATA: PID (PPM)	TEST DATA: Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		4.9				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		4.4				bentonite seal
CLAY, stiff, brown, moist, and fine sand, sand content increases with depth		5	4-6	HA		5.3				Sample taken for analysis
	6.0		6-8	CT		4.7				2" PVC riser
SAND, medium dense, brown, moist, fine-grained, with some clay			8-10	CT		4.2				
		10	10-12	CT		2.8				filter pack
	12.0									
... SAND as above, becomes wet			12-14	CT		2.5		○		
	14.0									
... SAND as above, becomes moist		15	14-16	CT		1.4				2" PVC screen
	16.0							+		
Boring terminated at 16'										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 12.0 ft.
+ At Survey 15.6 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT	Graydon Head & Ritchie	BORING #	MW-11
GEOLOGIST	Michael Luessen	JOB #	241EN00715
PROJECT NAME	Former IRS Building	DRAWN BY	N. Stewart
PROJECT LOCATION	100 W 4th Street Covington, KY	APPROVED BY	M. Luessen

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Casing Length	25 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

TEST DATA

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	Sampler Graphics / Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		3.8				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	0.5		2-4	HA		3.8				bentonite seal
SAND, dense, brown, moist, fine-grained, with little clay, clay content increases with depth		5	4-6	HA		2.6				
			6-8	CT		1.6				
			8-10	CT		2.4				
		10	10-12	CT		2.8				
			12-14	CT		4.3				
CLAY, soft, brown, moist, and fine sand	14.0	15	14-16	CT		1.7		+		Sample taken for analysis 2" PVC riser
			16-18	CT		1.5				
... CLAY as above, becomes wet	18.0		18-20	CT		1.2		○		filter pack
Boring terminated at 20'	20.0	20								2" PVC screen end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods 18.0 ft.
+ At Survey 14.7 ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

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WELL LOG

CLIENT **Graydon Head & Ritchie**
GEOLOGIST **Michael Luessen**
PROJECT NAME **Former IRS Building**
PROJECT LOCATION **100 W 4th Street**, **Covington, KY**

BORING # **MW-12**
JOB # **241EN00715**
DRAWN BY **N. Stewart**
APPROVED BY **M. Luessen**

DRILLING and SAMPLING INFORMATION

Date Started	7/16/20	Hammer Wt.	lbs.
Date Completed	7/16/20	Casing Length	29 ft.
Drill Foreman	EnviroCore	Casing Diameter	1 in.
Inspector	N. Stewart	Screen Length.	10 ft.
Boring Method	HA/HP	Screen Diameter	1 in.

SOIL DESCRIPTION / SURFACE ELEVATION	Stratum Depth	Depth Scale	Sample No.	Sample Type	TEST DATA: Sampler Graphics Recovery Graphics	PID (PPM)	Standard Penetration Test N, Blows/6 inches	Groundwater	Well Completion	Remarks
ASPHALT	0.3		0-2	HA		0.8				manhole and concrete pad
FILL, medium dense, grey, dry, with some medium gravel	1.0		2-4	HA		1.2				bentonite seal
CLAY, stiff, brown, moist, and fine sand		5	4-6	HA		1.8				
			6-8	CT		1.8				
			8-10	CT		1.7				
		10	10-12	CT		1.8				
	12.0									
... CLAY as above, becomes medium stiff			12-14	CT		1.9				
		15	14-16	CT		2.0				
			16-18	CT		2.1				Sample taken for analysis
			18-20	CT		1.8				2" PVC riser
	20.0	20						○		
... CLAY as above, becomes soft and wet			20-22	CT		1.8				
	22.0									
... CLAY as above, becomes medium stiff and grey			22-24	CT		2.6		+		filter pack
	24.0									2" PVC screen
Boring terminated at 24'										end cap

Sample Type
SS - Driven Split Spoon
ST - Pressed Shelby Tube
HA - Hand Auger
RC - Rock Core
CU - Cuttings
CT - Continuous Tube
RCB - Rotosonic Core Barrel

PID
Span Pot.= _____
Cal. Date.= _____

Groundwater
▽ At Completion _____ ft.
▼ After _____ hours _____ ft.
○ Water on Rods **20.0** ft.
+ At Survey **22.7** ft.

Boring Method
HSA - Hollow Stem Augers
CFA - Continuous Flight Augers
HP - Hydraulic Push
MD - Mud Drilling
HA - Hand Auger
AR - Air Rotary

Appendix D

Well Development & Sampling

Survey Form

Client:	**Graydon Head & Richey**	**Location:**	**201 Rivercenter Blvd.**	**Date:**	**7/24/2020**
Personnel:	**Michael Baumgartner**	**Project #:**	**241EN00715**	**Time Arrived:**	**11:00**
PM:	**Mike Luessen and Bill Norris**	**Site #:**	**Former IRS Property: Covington, KY**	**Time Departed:**	**17:00**
Weather:					

Well ID	Well Diameter (IN)	TOC North Side Laser reading?	Pad Surface Laser Reading?	+/- Benchmark (ft)	TOC Elevation	Pad Surface Elevation	Benchmark?	Comments
MW-1	1	9.62	9.27	5.89	94.11	94.46		
MW-2	1	5.53	5.13	1.80	98.20	98.6		
MW-3	1	4.79	4.61	1.06	98.94	99.12		
MW-4	1	3.73	3.42	3.73	100.00	100.31	Yes	
MW-6	1	8.44	8.16	4.71	95.29	95.57		
MW-6	1	7.31		102.60			Traverse	
MW-5	1	10.42	10.00	3.11	92.18	92.60		
MW-7	1	6.34	5.96	0.97	96.26	96.64		
MW-7	1	4.83		101.09			Traverse	
MW-8	1	4.13	3.88	0.50	96.76	97.01		
MW-9	1	3.84	3.43	3.43	100.00	100.41	Yes	
MW-11	1	4.07	3.66	0.23	99.77	100.18		
MW-11	1	6.66		106.43			Traverse	
MW-12	1	5.04	4.82	1.62	101.39	101.61		
MW-10	1	4.93	4.70	1.73	101.50	101.73		
								MW-9, 10, 11, and 12 are relative
								to each other, TOC and GSE
								elevations are not tied back in
								and relative to MW-1 through 8

Well Development Form

Client:	**Graydon Head and Ritchie**	**Location:**	**200 West Fourth Street Covington, KY 41011**	**Date:**	**7/22/2020**
Personnel:	**Michael Baumgartner**	**Project #:**	**241EN00715**	**Time Arrived:**	**8:00**
PM:	**Mike Luessen and Bill Norris**	**Site #:**	**Former Internal Revenue Service Facility**	**Time Departed:**	**17:00**
Weather:	**80's, Hot and Muggy**	**# of Drums Generated Today:**	**1**	**Total # of Drums on site:**	**1**

Well ID	Well Diameter (IN)	Well Depth (FT)	Product Level (FT)	Static Water Level (FT)	Feet of Water in Well	One Well Volume (Gal)	Five Well Volumes (Gal)	Volume Purged (Gal)	Total Purge Time (Min)	Purge Rate (GPM)	Observations: (Color, Turbidity, Sheen, Odor, Pad Cond?)
MW-1	1	19.46	NMI	13.01	6.45	0.26	1.32	0.75	25	0.03	Purged dry at approximately 3 well volumes
MW-2	1	24.50	NMI	19.74	4.76	0.20	0.98	0.50	20	0.03	Purged dry at approximately 2.5 well volumes
MW-3	1	28.38	NMI	22.40	5.98	0.25	1.23	0.75	25	0.03	Purged dry at approximately 3 well volumes
MW-4	1	21.71	NMI	18.97	2.74	0.11	0.56	0.25	15	0.02	Purged dry at approximately 2.5 well volumes
MW-5	1	28.47	NMI	18.86	9.61	0.39	1.97	0.75	25	0.03	Purged dry at approximately 2 well volumes, with no recharge
MW-6	1	24.61	NMI	19.96	4.65	0.19	0.95	0.50	20	0.03	Purged dry at approximately 2.5 well volumes
MW-7	1	27.60	NMI	18.14	9.46	0.39	1.94	1.00	30	0.03	Purged dry at approximately 2.5 well volumes
MW-8	1	19.61	NMI	12.29	7.32	0.30	1.50	1.00	30	0.03	Purged dry at approximately 3 well volumes
MW-9	1	31.38	NMI	23.80	7.58	0.31	1.55	0.75	25	0.03	Purged dry at approximately 2.5 well volumes
MW-10	1	15.71	NMI	15.63	0.08	--	--	--	--	--	Attempted to surge and purge, well ran dry, with no recharge
MW-11	1	24.49	NMI	14.73	9.76	0.40	2.00	1.25	30	0.04	Purged dry at approximately 3 well volumes
MW-12	1	28.51	NMI	22.72	5.79	0.24	1.19	0.25	15	0.02	Purged dry at approximately 1 well volume, with no recharge

Denote any necessary comments, conditions or repairs needed to wells in the- space provided below:
0.041 gallons of water per foot of depth in 1-inch monitoring well.
NMI - No measurable interface

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 94.11 (ft)
Static Water Elev. 82.17 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-1 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 11.94 Total Depth: 19.45

Feet Water in Well: 7.51 Pump Depth: 16

Total Gallons Purged: 0.75 Purged Dry After: 2.5 well volumes

Start Time: 9:20 End Time: 9:40 Sample Time: 14:20

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.1	6.32	5.417	9.54	48.5	224	13.42
10	20.2	6.24	5.244	9.71	64.8	211	BTP
15	20.1	6.28	5.529	9.82	74.3	202	-
20	19.9	6.33	5.177	9.91	65.8	195	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 98.20 (ft)
Static Water Elev. 79.30 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-2 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 18.90 Total Depth: 24.49

Feet Water in Well: 5.59 Pump Depth: 22

Total Gallons Purged: 0.75 Purged Dry After: 3 well volumes

Start Time: 8:50 End Time: 9:10 Sample Time: 14:00

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	19.4	6.39	2.111	9.47	61.1	749	BTP
10	19.6	6.39	2.130	9.52	54.5	2500	-
15	19.4	6.35	2.078	10.01	18.0	2500	-
20	19.5	6.34	1.018	10.07	8.2	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 98.94 (ft)
Static Water Elev. 76.38 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-3 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 22.56 Total Depth: 28.63

Feet Water in Well: 6.07 Pump Depth: 25

Total Gallons Purged: 0.75 Purged Dry After: 3 well volumes

Start Time: 8:10 End Time: 8:30 Sample Time: 13:30

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.5	6.45	3.084	10.19	63.8	185.2	23.87
10	21.6	6.48	3.135	10.17	35.6	309.0	BTP
15	22.9	6.49	3.144	10.11	29.2	165.1	-
20	23.3	6.50	3.163	10.03	26.6	72.1	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 100.00 (ft)
Static Water Elev. 81.74 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-4 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 18.26 Total Depth: 21.67

Feet Water in Well: 3.41 Pump Depth: 20

Total Gallons Purged: 0.50 Purged Dry After: 3.5 well volumes

Start Time: 9:50 End Time: 10:10 Sample Time: 13:50

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	18.9	6.17	2.718	9.39	10.9	2500	BTP
10	19.0	6.30	1.378	9.37	32.9	2500	-
15	18.8	6.28	2.885	9.31	38.7	2500	-
20	19.1	6.26	2.814	9.23	36.1	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 92.18 (ft)
Static Water Elev. 73.39 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-5 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 18.79 Total Depth: 28.60

Feet Water in Well: 9.81 Pump Depth: 25

Total Gallons Purged: 1.25 Purged Dry After: 3 well volumes

Start Time: 10:30 End Time: 10:50 Sample Time: 16:10

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	21.0	5.65	3.112	9.88	-32.5	2500	23.18
10	21.1	5.70	3.754	9.91	-23.1	2500	BTP
15	20.7	5.79	3.948	9.73	-25.0	2500	-
20	20.1	5.79	3.627	9.66	-29.3	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☑ No Preservation: ☑ HCL ☑ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 95.29 (ft)
Static Water Elev. _____ (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-6 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 19.54 Total Depth: 24.61

Feet Water in Well: 5.07 Pump Depth: 23

Total Gallons Purged: 0.50 Purged Dry After: 2.5 well volumes

Start Time: 11:00 End Time: 11:20 Sample Time: 16:30

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	19.5	6.31	4.312	9.17	9.1	1718	21.59
10	19.5	6.91	4.181	9.23	4.8	2500	BTP
15	19.5	6.32	4.197	9.21	16.8	2500	-
20	19.6	6.33	4.204	9.18	18.7	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 96.26 (ft)
Static Water Elev. 78.82 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-7 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 17.44 Total Depth: 27.60

Feet Water in Well: 10.16 Pump Depth: 23

Total Gallons Purged: 1.25 Purged Dry After: 3 well volumes

Start Time: 11:40 End Time: 12:00 Sample Time: 13:59

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.9	6.09	3.137	9.42	48.2	796	20.74
10	20.4	6.12	3.076	9.53	49.5	981	BTP
15	19.9	6.19	2.932	9.61	46.2	1523	-
20	19.6	6.20	2.850	9.66	44.8	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. 96.76 (ft)
Static Water Elev. 84.43 (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-8 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 12.33 Total Depth: 19.60

Feet Water in Well: 7.27 Pump Depth: 16

Total Gallons Purged: 1.00 Purged Dry After: 3 well volumes

Start Time: 12:20 End Time: 12:40 Sample Time: 13:53

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.7	6.68	2.872	10.04	19.7	2500	14.16
10	20.9	6.65	3.100	10.07	20.4	680	BTP
15	20.5	6.63	3.082	10.12	7.0	1600	-
20	20.5	6.63	3.071	10.15	4.1	1500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. _____ (ft)
Static Water Elev. _____ (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-9 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 23.41 Total Depth: 31.35

Feet Water in Well: 7.94 Pump Depth: 27

Total Gallons Purged: 1.00 Purged Dry After: 3 well volumes

Start Time: 13:00 End Time: 13:20 Sample Time: 15:50

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.0	5.59	2.987	8.95	96.1	2500	25.69
10	19.9	5.60	2.973	8.87	98.7	2500	BTP
15	19.6	5.77	2.965	8.83	98.6	2500	-
20	20.0	5.80	2.954	8.88	95.9	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☑ No Preservation: ☑ HCL ☑ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. _____ (ft)
Static Water Elev. _____ (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-10 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 15.65 Total Depth: 15.68

Feet Water in Well: 0.03 Pump Depth: _____

Total Gallons Purged: _____ Purged Dry After: _____ well volumes

Start Time: _____ End Time: _____ Sample Time: _____

Method: _____ Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)

General Information

Weather: 80's, Overcast, Rain

Observations: Insufficient water column for sampling.

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. _____ (ft)
Static Water Elev. _____ (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-11 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 14.74 Total Depth: 24.50

Feet Water in Well: 9.76 Pump Depth: 20

Total Gallons Purged: 1.25 Purged Dry After: 3 well volumes

Start Time: 13:40 End Time: 14:00 Sample Time: 15:00

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	20.1	5.89	3.379	9.17	32.2	2500	19.07
10	20.2	6.06	3.285	9.22	32.5	2500	BTP
15	20.2	5.46	2.756	9.24	29.5	2500	-
20	20.1	5.43	2.891	9.27	32.5	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☐ No Preservation: ☑ HCL ☐ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Well Lowflow Sample Data Sheet

(all measurements are in feet unless noted otherwise)

Well Casing Elev. _____ (ft)
Static Water Elev. _____ (ft)

Site Name: Former Internal Revenue Service Facility Project Number: 241EN00715

Well ID: MW-12 Casing Diameter: 1" Date: 7/23/2020

Static Water Level: 22.73 Total Depth: 28.45

Feet Water in Well: 5.72 Pump Depth: 26

Total Gallons Purged: 0.25 Purged Dry After: 1 well volumes

Start Time: 14:20 End Time: 14:40 Sample Time: 16:50

Method: Bladder Pump Purging Equipment: ☐ Dedicated ☑ Non-Dedicated

Time elapsed (minutes)	Temp. (°C)	pH	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTUs)	DTW (ft)
5	19.8	5.77	3.463	9.52	64.1	2500	BTP
10	19.7	5.86	3.761	9.68	66.7	2500	-

General Information

Weather: 80's, Overcast, Rain

Observations: BTP = Below Top of Pump, well was purged dry, allowed time to recharge and grab sampled

Metals Filtration: ☐ Yes ☑ No Preservation: ☑ HCL ☑ HNO3 ☐ H2SO4 ☐ NaOH ☑ Ice

Sampler: MCB Signature: Michael Baumgartner

Appendix E

Soil Gas Sampling Forms

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-1		
Summa Canister ID #:	109974	Regulator ID #	101770
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	5 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:05	Sub-Slab Thickness (inches):	6
Sampling End Time:	15:45	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.2	**PID (ppm)**	0.2	**PID (ppm)**	0.2	**PID (ppm)**	0.2
% O_2	19.2	**% O_2**	18.8	**% O_2**	18.4	**% O_2**	18.4
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-2		
Summa Canister ID #:	119826	Regulator ID #	119046
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	4 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:15	Sub-Slab Thickness (inches):	6
Sampling End Time:	15:47	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.4	**PID (ppm)**	0.4
% O_2	18.9	**% O_2**	16.9	**% O_2**	16.7	**% O_2**	16.4
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-3		
Summa Canister ID #:	119828	Regulator ID #	109473
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	3 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:25	Sub-Slab Thickness (inches):	6
Sampling End Time:	15:50	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.4	**PID (ppm)**	0.6
% O_2	17.1	**% O_2**	16.3	**% O_2**	15.9	**% O_2**	15.7
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-4		
Summa Canister ID #:	101805	Regulator ID #	108982
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	4 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:35	Sub-Slab Thickness (inches):	6
Sampling End Time:	15:55	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.4	**PID (ppm)**	0.4
% O_2	16.2	**% O_2**	15.6	**% O_2**	15.4	**% O_2**	15.2
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-5		
Summa Canister ID #:	109972	Regulator ID #	109209
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	5 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:45	Sub-Slab Thickness (inches):	6
Sampling End Time:	15:57	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.5	**PID (ppm)**	0.8
% O_2	19.6	**% O_2**	19.2	**% O_2**	18.8	**% O_2**	18.7
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

—AN ATLAS COMPANY—

Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-6		
Summa Canister ID #:	119690	Regulator ID #	119037
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	8 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	7:55	Sub-Slab Thickness (inches):	6
Sampling End Time:	16:05	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.5	**PID (ppm)**	0.6	**PID (ppm)**	0.6	**PID (ppm)**	0.7
% O_2	19.1	**% O_2**	18.6	**% O_2**	18.5	**% O_2**	18.3
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

—AN ATLAS COMPANY—

Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-7		
Summa Canister ID #:	109961	Regulator ID #	119007
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	4 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	8:05	Sub-Slab Thickness (inches):	6
Sampling End Time:	16:10	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.8	**PID (ppm)**	0.7
% O_2	18.7	**% O_2**	18.1	**% O_2**	17.9	**% O_2**	17.9
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Sub-Slab Vapor Sampling Data Sheet

—AN ATLAS COMPANY—

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-8		
Summa Canister ID #:	119824	Regulator ID #	119706
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	4 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	8:15	Sub-Slab Thickness (inches):	6
Sampling End Time:	16:15	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.4	**PID (ppm)**	0.5	**PID (ppm)**	0.5	**PID (ppm)**	0.6
% O_2	16.2	**% O_2**	15.8	**% O_2**	15.7	**% O_2**	15.7
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

—AN ATLAS COMPANY—

Sub-Slab Vapor Sampling Data Sheet

Site Name:	Former Internal Revenue Service Facility	Date:	7/16/2020
Site Address:	200 West Fourth Street Covington, KY 41011	Project Number:	241EN00715
Sub-Slab Vapor Point ID#:	SV-9		
Summa Canister ID #:	109963	Regulator ID #	119032
Canister Pressure: Initial	30 (psig/inHg)	Regulator Draw:	8 (calibrated hours)
Canister Pressure: Final	5 (psig/inHg)	Sub-Slab Port Installed (Date)	7/15/2020
Sampling Start Time:	8:25	Sub-Slab Thickness (inches):	6
Sampling End Time:	16:20	Sub-Slab Port	Vapor Pin
Laboratory Analytical Metod:	TO-15	Sub-Slab Port Sealed and Leak Checked:	Yes
Laboratory Used:	ALS Environmental	Sub-Slab Port Install Notes:	Installed Vapor Pin day prior to sampling, water dammed overnight, no drop in hydrostatic level, O2 tested as well.
Sample Delivery Date & Time:	7/17/2020 @ 0830		

Field Screening Info:		Field Screening Info:		Field Screening Info:		Field Screening Info:	
PID (ppm)	0.2	**PID (ppm)**	0.3	**PID (ppm)**	0.4	**PID (ppm)**	0.4
% O_2	16.8	**% O_2**	16.4	**% O_2**	15.8	**% O_2**	15.2
% LEL	0	**% LEL**	0	**% LEL**	0	**% LEL**	0
CO	0	**CO**	0	**CO**	0	**CO**	0
H_2S	0.0	**H_2S**	0.0	**H_2S**	0.0	**H_2S**	0.0

Average Meteorological Conditions	
Temperature:	80
Avg Wind Direction:	SSW
Avg Wind Speed:	12 mph
Barometric Pressure:	29.16
Avg Humidity	68%

Observations: Used Bosch hammer drill with 5/8 inch bit to core concrete slab and install a Vapor Pin at the location. A dedicated silcone sleeve and cap was deployed with each vapor pin installed, and allowed to equilibrate overnight under a hydrostatic water test (water dam). Passed both hydrostatic and O2 tightness tests.

Sampler: Michael Baumgartner Signature: Michael Baumgartner

Appendix F

Test Excavation Documentation

Photograph 1: Anomaly located in Survey Area #7 (auto repair and painting).

Photograph 2: View of the concrete vault excavated in Survey Area #7.

Photograph 3: View of the steel tank ("Tank #2") uncovered in Survey Area #6 (Bonded Station west).

Photograph 4: View of the steel tank ("Tank #2") uncovered in Survey Area #6 (Bonded Station west).

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AN ATLAS COMPANY

Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kentucky 41011

TEST EXCAVATION PHOTOGRAPHS

July 23, 2020

Photograph 5: View of the backfilled cavity in Survey Area #6 at completion of excavation.

Photograph 6: Anomaly located in Survey Area #3 (auto repair northeast).

Photograph 7: View of the steel tank ("Tank #1") uncovered in Survey Area #3 (auto repair northeast).

ATC
AN ATLAS COMPANY

Phase II Environmental Site Assessment
Former Internal Revenue Service Property
200 West Fourth Street
Covington, Kentucky 41011

TEST EXCAVATION PHOTOGRAPHS

July 23, 2020

Appendix G

Benzo(a)pyrene Toxicity Equivalents Calculation Documentation

Carcinogenic PAHS - Toxic Equivalency Factors (TEFs)
Former IRS Property, Covington, KY

Sample: SB-10 (6-8')

		Concentration	Toxic Equivalency Factor (TEF)	Benzo(a)pyrene Equivalents
Benzo(a)anthracene	c	3.9	0.1	0.39
Benzo(a)pyrene	c	4.6	1.0	4.6
Benzo(b)fluoranthene	c	4.9	0.1	0.49
Benzo(k)fluoranthene	c	1.9	0.01	0.019
Chrysene	c	3.8	0.001	0.0038
Dibenz(a,h)anthracene	c	0.63	1.0	0.63
Indeno(1,2,3-cd)pyrene	c	2.8	0.1	0.28
			TOTAL B(a)P	**6.4128**

Sample: SB-14 (0-2')

		Concentration	Toxic Equivalency Factor (TEF)	Benzo(a)pyrene Equivalents
Benzo(a)anthracene	c	0.69	0.1	0.069
Benzo(a)pyrene	c	0.83	1.0	0.83
Benzo(b)fluoranthene	c	1.1	0.1	0.11
Benzo(k)fluoranthene	c	0.44	0.01	0.0044
Chrysene	c	0.95	0.001	0.00095
Dibenz(a,h)anthracene	c	0.13	1.0	0.13
Indeno(1,2,3-cd)pyrene	c	0.55	0.1	0.055
			TOTAL B(a)P	**1.19935**

Sample: Tank #2 (7')

		Concentration	Toxic Equivalency Factor (TEF)	Benzo(a)pyrene Equivalents
Benzo(a)anthracene	c	0.66	0.1	0.066
Benzo(a)pyrene	c	0.84	1.0	0.84
Benzo(b)fluoranthene	c	0.82	0.1	0.082
Benzo(k)fluoranthene	c	0.3	0.01	0.003
Chrysene	c	0.56	0.001	0.00056
Dibenz(a,h)anthracene	c	0.15	1.0	0.15
Indeno(1,2,3-cd)pyrene	c	0.53	0.1	0.053
			TOTAL B(a)P	**1.19456**

Appendix H

Laboratory Reports

22-Jul-2020

Mike Luessen
ATC Group Services LLC
11121 Canal Road
Cincinnati, OH 45241-1861

Tel: 513-771-2112
Fax: 513-782-6908

Re: 241EN00715; Former IRS Bldg Covington,KY Work Order: **2007619**

Dear Mike,

ALS Environmental received 12 samples on 20-Jul-2020 08:10 AM for the analyses presented in the following report.

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

QC sample results for this data met 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 Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 58.

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

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 22-Jul-20

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: **2007619**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2007619-01	REC-20:SB-5 4-6	Soil		7/16/2020 09:33	7/20/2020 08:10	☐
2007619-02	REC-7:SB-6 6-8	Soil		7/16/2020 10:17	7/20/2020 08:10	☐
2007619-03	REC-18:SB-10 6-8	Soil		7/16/2020 11:06	7/20/2020 08:10	☐
2007619-04	REC-19:SB-9 8-10	Soil		7/16/2020 11:46	7/20/2020 08:10	☐
2007619-05	REC-17:SB-11 4-6	Soil		7/16/2020 14:05	7/20/2020 08:10	☐
2007619-06	REC-15:SB-13 2-4	Soil		7/16/2020 14:42	7/20/2020 08:10	☐
2007619-07	REC-11:SB-15 12-14	Soil		7/16/2020 15:42	7/20/2020 08:10	☐
2007619-08	REC-14:SB-17 16-18	Soil		7/16/2020 16:40	7/20/2020 08:10	☐
2007619-09	REC-13:SB-14 0-2	Soil		7/16/2020 17:50	7/20/2020 08:10	☐
2007619-10	REC-12:SB-16 0-2	Soil		7/16/2020 18:15	7/20/2020 08:10	☐
2007619-11	REC-10:SB-18 4-6	Soil		7/17/2020 13:08	7/20/2020 08:10	☐
2007619-12	REC-11:SB-12 4-6	Soil		7/17/2020 12:59	7/20/2020 08:10	☐

ALS Environmental

Date: 22-Jul-20

Client:	ATC Group Services LLC
Project:	241EN00715; Former IRS Bldg Covington,KY
Work Order:	2007619

Case Narrative

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

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met 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.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-20:SB-5 4-6
Lab ID: 2007619-01
Collection Date: 7/16/2020 09:33 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/22/2020 10:54 AM
TPH C20-C34	**39**		**18**	**mg/Kg-dry**	1	7/22/2020 10:54 AM
Surr: Nonane	*29.0*		*22.6-112*	*%REC*	1	7/22/2020 10:54 AM
Surr: Pentacosane	*53.5*		*9.2-109*	*%REC*	1	7/22/2020 10:54 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/20/2020 10:54 AM
Surr: Cyclooctane	*106*		*55-135*	*%REC*	1	7/20/2020 10:54 AM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**17**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.33	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**8.1**		**4.8**	**mg/Kg-dry**	1	7/20/2020 06:42 PM
Barium	**53**		**9.5**	**mg/Kg-dry**	1	7/20/2020 06:42 PM
Cadmium	ND		0.95	mg/Kg-dry	1	7/20/2020 06:42 PM
Chromium	**17**		**1.9**	**mg/Kg-dry**	1	7/20/2020 06:42 PM
Lead	**13**		**4.8**	**mg/Kg-dry**	1	7/20/2020 06:42 PM
Selenium	ND		2.9	mg/Kg-dry	1	7/20/2020 06:42 PM
Silver	ND		0.95	mg/Kg-dry	1	7/20/2020 06:42 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Anthracene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 06:29 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 06:29 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Carbazole	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Chrysene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 06:29 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Fluorene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-20:SB-5 4-6
Lab ID: 2007619-01
Collection Date: 7/16/2020 09:33 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 06:29 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Pyrene	ND		240	µg/Kg-dry	1	7/20/2020 06:29 PM
Surr: 2-Fluorobiphenyl	*58.5*		*30-116*	*%REC*	1	7/20/2020 06:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
2-Butanone	ND		60	µg/Kg-dry	1	7/20/2020 10:29 AM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
2-Hexanone	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Acetone	ND		60	µg/Kg-dry	1	7/20/2020 10:29 AM
Benzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Bromobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Bromoform	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Bromomethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-20:SB-5 4-6 **Lab ID:** 2007619-01

Collection Date: 7/16/2020 09:33 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Chloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Chloroform	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Chloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Dibromomethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 10:29 AM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Methylene chloride	ND		24	µg/Kg-dry	1	7/20/2020 10:29 AM
Naphthalene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
o-Xylene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Styrene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Toluene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Trichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	7/20/2020 10:29 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/20/2020 10:29 AM
Surr: 4-Bromofluorobenzene	*95.7*		*62.7-159*	*%REC*	1	7/20/2020 10:29 AM
Surr: Dibromofluoromethane	*108*		*88.4-146*	*%REC*	1	7/20/2020 10:29 AM
Surr: Toluene-d8	*86.6*		*83-124*	*%REC*	1	7/20/2020 10:29 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-7:SB-6 6-8
Lab ID: 2007619-02
Collection Date: 7/16/2020 10:17 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		19	mg/Kg-dry	1	7/22/2020 11:14 AM
TPH C20-C34	**33**		**19**	**mg/Kg-dry**	1	7/22/2020 11:14 AM
Surr: Nonane	*31.1*		*22.6-112*	*%REC*	1	7/22/2020 11:14 AM
Surr: Pentacosane	*49.5*		*9.2-109*	*%REC*	1	7/22/2020 11:14 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/20/2020 11:20 AM
Surr: Cyclooctane	*105*		*55-135*	*%REC*	1	7/20/2020 11:20 AM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**20**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.29	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**9.3**		**4.2**	**mg/Kg-dry**	1	7/20/2020 06:47 PM
Barium	**46**		**8.4**	**mg/Kg-dry**	1	7/20/2020 06:47 PM
Cadmium	ND		0.84	mg/Kg-dry	1	7/20/2020 06:47 PM
Chromium	**13**		**1.7**	**mg/Kg-dry**	1	7/20/2020 06:47 PM
Lead	**12**		**4.2**	**mg/Kg-dry**	1	7/20/2020 06:47 PM
Selenium	ND		2.5	mg/Kg-dry	1	7/20/2020 06:47 PM
Silver	ND		0.84	mg/Kg-dry	1	7/20/2020 06:47 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Anthracene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 06:49 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 06:49 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Carbazole	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Chrysene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 06:49 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Fluorene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-7:SB-6 6-8
Lab ID: 2007619-02
Collection Date: 7/16/2020 10:17 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 06:49 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Pyrene	ND		250	µg/Kg-dry	1	7/20/2020 06:49 PM
Surr: 2-Fluorobiphenyl	*64.8*		*30-116*	*%REC*	1	7/20/2020 06:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
2-Butanone	ND		62	µg/Kg-dry	1	7/20/2020 10:49 AM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
2-Hexanone	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Acetone	ND		62	µg/Kg-dry	1	7/20/2020 10:49 AM
Benzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Bromobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Bromoform	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Bromomethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-7:SB-6 6-8 **Lab ID:** 2007619-02

Collection Date: 7/16/2020 10:17 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Chloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Chloroform	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Chloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Dibromomethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 10:49 AM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Methylene chloride	ND		25	µg/Kg-dry	1	7/20/2020 10:49 AM
Naphthalene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
o-Xylene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Styrene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Toluene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Trichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	7/20/2020 10:49 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/20/2020 10:49 AM
Surr: 4-Bromofluorobenzene	*94.6*		*62.7-159*	*%REC*	1	7/20/2020 10:49 AM
Surr: Dibromofluoromethane	*119*		*88.4-146*	*%REC*	1	7/20/2020 10:49 AM
Surr: Toluene-d8	*101*		*83-124*	*%REC*	1	7/20/2020 10:49 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-18:SB-10 6-8
Lab ID: 2007619-03
Collection Date: 7/16/2020 11:06 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**12**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.31	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**11**		**4.8**	**mg/Kg-dry**	1	7/20/2020 06:51 PM
Barium	**61**		**9.6**	**mg/Kg-dry**	1	7/20/2020 06:51 PM
Cadmium	ND		0.96	mg/Kg-dry	1	7/20/2020 06:51 PM
Chromium	**11**		**1.9**	**mg/Kg-dry**	1	7/20/2020 06:51 PM
Lead	**54**		**4.8**	**mg/Kg-dry**	1	7/20/2020 06:51 PM
Selenium	ND		2.9	mg/Kg-dry	1	7/20/2020 06:51 PM
Silver	ND		0.96	mg/Kg-dry	1	7/20/2020 06:51 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	7/20/2020 07:09 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	7/20/2020 07:09 PM
Acenaphthene	**230**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Acenaphthylene	**550**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Anthracene	**1,400**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Benzo(a)anthracene	**3,900**		**110**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Benzo(a)pyrene	**4,600**		**1,100**	**µg/Kg-dry**	10	7/21/2020 11:51 AM
Benzo(b)fluoranthene	**4,900**		**2,300**	**µg/Kg-dry**	10	7/21/2020 11:51 AM
Benzo(g,h,i)perylene	**2,300**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Benzo(k)fluoranthene	**1,900**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Carbazole	**230**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Chrysene	**3,800**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Dibenzo(a,h)anthracene	**630**		**110**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	7/20/2020 07:09 PM
Fluoranthene	**8,900**		**2,300**	**µg/Kg-dry**	10	7/21/2020 11:51 AM
Fluorene	**430**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Indeno(1,2,3-cd)pyrene	**2,800**		**110**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Naphthalene	ND		230	µg/Kg-dry	1	7/20/2020 07:09 PM
Phenanthrene	**4,300**		**230**	**µg/Kg-dry**	1	7/20/2020 07:09 PM
Pyrene	**6,700**		**2,300**	**µg/Kg-dry**	10	7/21/2020 11:51 AM
Surr: 2-Fluorobiphenyl	*67.1*		*30-116*	*%REC*	1	7/20/2020 07:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-18:SB-10 6-8 **Lab ID:** 2007619-03

Collection Date: 7/16/2020 11:06 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
2-Butanone	ND		57	µg/Kg-dry	1	7/20/2020 11:09 AM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
2-Hexanone	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Acetone	ND		57	µg/Kg-dry	1	7/20/2020 11:09 AM
Benzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Bromobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Bromoform	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Bromomethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Chloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Chloroform	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Chloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Dibromomethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-18:SB-10 6-8 **Lab ID:** 2007619-03

Collection Date: 7/16/2020 11:06 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
m,p-Xylene	ND		11	µg/Kg-dry	1	7/20/2020 11:09 AM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Methylene chloride	ND		23	µg/Kg-dry	1	7/20/2020 11:09 AM
Naphthalene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
o-Xylene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Styrene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Toluene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Trichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	7/20/2020 11:09 AM
Xylenes, Total	ND		17	µg/Kg-dry	1	7/20/2020 11:09 AM
Surr: 4-Bromofluorobenzene	*95.9*		*62.7-159*	*%REC*	1	7/20/2020 11:09 AM
Surr: Dibromofluoromethane	*119*		*88.4-146*	*%REC*	1	7/20/2020 11:09 AM
Surr: Toluene-d8	*101*		*83-124*	*%REC*	1	7/20/2020 11:09 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-19:SB-9 8-10 **Lab ID:** 2007619-04
Collection Date: 7/16/2020 11:46 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/22/2020 11:33 AM
TPH C20-C34	**30**		**18**	**mg/Kg-dry**	1	7/22/2020 11:33 AM
Surr: Nonane	*36.5*		*22.6-112*	*%REC*	1	7/22/2020 11:33 AM
Surr: Pentacosane	*49.9*		*9.2-109*	*%REC*	1	7/22/2020 11:33 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/20/2020 11:46 AM
Surr: Cyclooctane	*108*		*55-135*	*%REC*	1	7/20/2020 11:46 AM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/20/2020
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Anthracene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 07:29 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 07:29 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Carbazole	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Chrysene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 07:29 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Fluorene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 07:29 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Pyrene	ND		240	µg/Kg-dry	1	7/20/2020 07:29 PM
Surr: 2-Fluorobiphenyl	*64.2*		*30-116*	*%REC*	1	7/20/2020 07:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
Benzene	ND		6.1	µg/Kg-dry	1	7/20/2020 11:29 AM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 11:29 AM
m,p-Xylene	ND		6.1	µg/Kg-dry	1	7/20/2020 11:29 AM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/20/2020 11:29 AM
Toluene	ND		6.1	µg/Kg-dry	1	7/20/2020 11:29 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-19:SB-9 8-10 **Lab ID:** 2007619-04

Collection Date: 7/16/2020 11:46 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		12	µg/Kg-dry	1	7/20/2020 11:29 AM
Surr: 4-Bromofluorobenzene	*94.0*		*62.7-159*	*%REC*	1	7/20/2020 11:29 AM
Surr: Dibromofluoromethane	*121*		*88.4-146*	*%REC*	1	7/20/2020 11:29 AM
Surr: Toluene-d8	*102*		*83-124*	*%REC*	1	7/20/2020 11:29 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-17:SB-11 4-6 **Lab ID:** 2007619-05
Collection Date: 7/16/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		19	mg/Kg-dry	1	7/22/2020 11:53 AM
TPH C20-C34	**30**		**19**	**mg/Kg-dry**	1	7/22/2020 11:53 AM
Surr: Nonane	*36.0*		*22.6-112*	*%REC*	1	7/22/2020 11:53 AM
Surr: Pentacosane	*50.4*		*9.2-109*	*%REC*	1	7/22/2020 11:53 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/20/2020 12:11 PM
Surr: Cyclooctane	*105*		*55-135*	*%REC*	1	7/20/2020 12:11 PM
PCBS			**SW8082**		Prep Date: **7/20/2020**	Analyst: **TSA**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1221	ND		0.25	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1232	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1242	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1248	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1254	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1260	**0.14**		**0.12**	**mg/Kg-dry**	1	7/21/2020 02:00 PM
Aroclor 1262	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Aroclor 1268	ND		0.12	mg/Kg-dry	1	7/21/2020 02:00 PM
Surr: Decachlorobiphenyl	*94.0*		*14.9-146*	*%REC*	1	7/21/2020 02:00 PM
Surr: Tetrachloro-m-xylene	*82.0*		*20.7-158*	*%REC*	1	7/21/2020 02:00 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**20**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	**0.37**		**0.32**	**mg/Kg-dry**	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**16**		**4.7**	**mg/Kg-dry**	1	7/20/2020 06:56 PM
Barium	**110**		**9.4**	**mg/Kg-dry**	1	7/20/2020 06:56 PM
Cadmium	ND		0.94	mg/Kg-dry	1	7/20/2020 06:56 PM
Chromium	**13**		**1.9**	**mg/Kg-dry**	1	7/20/2020 06:56 PM
Lead	**140**		**4.7**	**mg/Kg-dry**	1	7/20/2020 06:56 PM
Selenium	ND		2.8	mg/Kg-dry	1	7/20/2020 06:56 PM
Silver	ND		0.94	mg/Kg-dry	1	7/20/2020 06:56 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-17:SB-11 4-6
Lab ID: 2007619-05
Collection Date: 7/16/2020 02:05 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 07:49 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 07:49 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Carbazole	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Chrysene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 07:49 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Fluorene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 07:49 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Pyrene	ND		250	µg/Kg-dry	1	7/20/2020 07:49 PM
Surr: 2-Fluorobiphenyl	*60.4*		*30-116*	*%REC*	1	7/20/2020 07:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
2-Butanone	ND		62	µg/Kg-dry	1	7/20/2020 11:50 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-17:SB-11 4-6 **Lab ID:** 2007619-05

Collection Date: 7/16/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
2-Hexanone	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Acetone	ND		62	µg/Kg-dry	1	7/20/2020 11:50 AM
Benzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Bromobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Bromoform	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Bromomethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Chloroethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Chloroform	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Chloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Dibromomethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 11:50 AM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Methylene chloride	ND		25	µg/Kg-dry	1	7/20/2020 11:50 AM
Naphthalene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
o-Xylene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Styrene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Toluene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-17:SB-11 4-6 **Lab ID:** 2007619-05

Collection Date: 7/16/2020 02:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Trichloroethene	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	7/20/2020 11:50 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/20/2020 11:50 AM
Surr: 4-Bromofluorobenzene	*82.3*		*62.7-159*	*%REC*	1	7/20/2020 11:50 AM
Surr: Dibromofluoromethane	*127*		*88.4-146*	*%REC*	1	7/20/2020 11:50 AM
Surr: Toluene-d8	*100*		*83-124*	*%REC*	1	7/20/2020 11:50 AM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-15:SB-13 2-4
Lab ID: 2007619-06
Collection Date: 7/16/2020 02:42 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/20/2020
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Anthracene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 08:09 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 08:09 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Carbazole	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Chrysene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 08:09 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Fluorene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 08:09 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Pyrene	ND		240	µg/Kg-dry	1	7/20/2020 08:09 PM
Surr: 2-Fluorobiphenyl	*67.2*		*30-116*	*%REC*	1	7/20/2020 08:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-15:SB-13 2-4 **Lab ID:** 2007619-06

Collection Date: 7/16/2020 02:42 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
2-Butanone	ND		61	µg/Kg-dry	1	7/20/2020 12:10 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Acetone	ND		61	µg/Kg-dry	1	7/20/2020 12:10 PM
Benzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Bromoform	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Chloroform	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 12:10 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Methylene chloride	ND		24	µg/Kg-dry	1	7/20/2020 12:10 PM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM

Note:

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-15:SB-13 2-4 **Lab ID:** 2007619-06
Collection Date: 7/16/2020 02:42 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Styrene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Toluene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/20/2020 12:10 PM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/20/2020 12:10 PM
Surr: 4-Bromofluorobenzene	*100*		*62.7-159*	*%REC*	1	7/20/2020 12:10 PM
Surr: Dibromofluoromethane	*130*		*88.4-146*	*%REC*	1	7/20/2020 12:10 PM
Surr: Toluene-d8	*95.0*		*83-124*	*%REC*	1	7/20/2020 12:10 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-11:SB-15 12-14 **Lab ID:** 2007619-07
Collection Date: 7/16/2020 03:42 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	**38**		**18**	**mg/Kg-dry**	1	7/22/2020 12:12 PM
TPH C20-C34	**170**		**18**	**mg/Kg-dry**	1	7/22/2020 12:12 PM
Surr: Nonane	*32.8*		*22.6-112*	*%REC*	1	7/22/2020 12:12 PM
Surr: Pentacosane	*40.7*		*9.2-109*	*%REC*	1	7/22/2020 12:12 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/20/2020 12:37 PM
Surr: Cyclooctane	*102*		*55-135*	*%REC*	1	7/20/2020 12:37 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**17**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.30	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**12**		**4.9**	**mg/Kg-dry**	1	7/20/2020 07:00 PM
Barium	**79**		**9.7**	**mg/Kg-dry**	1	7/20/2020 07:00 PM
Cadmium	ND		0.97	mg/Kg-dry	1	7/20/2020 07:00 PM
Chromium	**16**		**1.9**	**mg/Kg-dry**	1	7/20/2020 07:00 PM
Lead	**15**		**4.9**	**mg/Kg-dry**	1	7/20/2020 07:00 PM
Selenium	ND		2.9	mg/Kg-dry	1	7/20/2020 07:00 PM
Silver	ND		0.97	mg/Kg-dry	1	7/20/2020 07:00 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Anthracene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 08:29 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 08:29 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Carbazole	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Chrysene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 08:29 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Fluorene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-11:SB-15 12-14
Lab ID: 2007619-07
Collection Date: 7/16/2020 03:42 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 08:29 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Pyrene	ND		240	µg/Kg-dry	1	7/20/2020 08:29 PM
Surr: 2-Fluorobiphenyl	*59.3*		*30-116*	*%REC*	1	7/20/2020 08:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
2-Butanone	ND		60	µg/Kg-dry	1	7/20/2020 12:30 PM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
2-Hexanone	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Acetone	ND		60	µg/Kg-dry	1	7/20/2020 12:30 PM
Benzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Bromobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Bromoform	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Bromomethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-11:SB-15 12-14 **Lab ID:** 2007619-07

Collection Date: 7/16/2020 03:42 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Chloroethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Chloroform	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Chloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Dibromomethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 12:30 PM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Methylene chloride	ND		24	µg/Kg-dry	1	7/20/2020 12:30 PM
Naphthalene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
o-Xylene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Styrene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Toluene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Trichloroethene	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	7/20/2020 12:30 PM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/20/2020 12:30 PM
Surr: 4-Bromofluorobenzene	*95.9*		*62.7-159*	*%REC*	1	7/20/2020 12:30 PM
Surr: Dibromofluoromethane	*122*		*88.4-146*	*%REC*	1	7/20/2020 12:30 PM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	7/20/2020 12:30 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-14:SB-17 16-18 **Lab ID:** 2007619-08
Collection Date: 7/16/2020 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		19	mg/Kg-dry	1	7/22/2020 12:31 PM
TPH C20-C34	**35**		**19**	**mg/Kg-dry**	1	7/22/2020 12:31 PM
Surr: Nonane	*28.6*		*22.6-112*	*%REC*	1	7/22/2020 12:31 PM
Surr: Pentacosane	*52.8*		*9.2-109*	*%REC*	1	7/22/2020 12:31 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/20/2020 01:03 PM
Surr: Cyclooctane	*106*		*55-135*	*%REC*	1	7/20/2020 01:03 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**21**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.33	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**11**		**4.2**	**mg/Kg-dry**	1	7/20/2020 07:05 PM
Barium	**32**		**8.5**	**mg/Kg-dry**	1	7/20/2020 07:05 PM
Cadmium	ND		0.85	mg/Kg-dry	1	7/20/2020 07:05 PM
Chromium	**18**		**1.7**	**mg/Kg-dry**	1	7/20/2020 07:05 PM
Lead	**15**		**4.2**	**mg/Kg-dry**	1	7/20/2020 07:05 PM
Selenium	ND		2.5	mg/Kg-dry	1	7/20/2020 07:05 PM
Silver	ND		0.85	mg/Kg-dry	1	7/20/2020 07:05 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Anthracene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	7/20/2020 08:49 PM
Benzo(a)pyrene	ND		130	µg/Kg-dry	1	7/20/2020 08:49 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Carbazole	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Chrysene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Dibenzo(a,h)anthracene	ND		130	µg/Kg-dry	1	7/20/2020 08:49 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Fluorene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM

Note:

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619
Sample ID: REC-14:SB-17 16-18 **Lab ID:** 2007619-08
Collection Date: 7/16/2020 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		130	µg/Kg-dry	1	7/20/2020 08:49 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Pyrene	ND		250	µg/Kg-dry	1	7/20/2020 08:49 PM
Surr: 2-Fluorobiphenyl	*71.0*		*30-116*	*%REC*	1	7/20/2020 08:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
2-Butanone	ND		63	µg/Kg-dry	1	7/20/2020 12:50 PM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
2-Hexanone	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Acetone	ND		63	µg/Kg-dry	1	7/20/2020 12:50 PM
Benzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Bromobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Bromoform	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Bromomethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-14:SB-17 16-18 **Lab ID:** 2007619-08

Collection Date: 7/16/2020 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Chloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Chloroform	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Chloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Dibromomethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
m,p-Xylene	ND		13	µg/Kg-dry	1	7/20/2020 12:50 PM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Methylene chloride	ND		25	µg/Kg-dry	1	7/20/2020 12:50 PM
Naphthalene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
o-Xylene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Styrene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Tetrachloroethene	**55**		**6.3**	**µg/Kg-dry**	1	7/20/2020 12:50 PM
Toluene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Trichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	7/20/2020 12:50 PM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/20/2020 12:50 PM
Surr: 4-Bromofluorobenzene	*98.0*		*62.7-159*	*%REC*	1	7/20/2020 12:50 PM
Surr: Dibromofluoromethane	*124*		*88.4-146*	*%REC*	1	7/20/2020 12:50 PM
Surr: Toluene-d8	*97.1*		*83-124*	*%REC*	1	7/20/2020 12:50 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-13:SB-14 0-2
Lab ID: 2007619-09
Collection Date: 7/16/2020 05:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	**31**		**16**	**mg/Kg-dry**	1	7/22/2020 12:51 PM
TPH C20-C34	**170**		**16**	**mg/Kg-dry**	1	7/22/2020 12:51 PM
Surr: Nonane	*33.6*		*22.6-112*	*%REC*	1	7/22/2020 12:51 PM
Surr: Pentacosane	*32.1*		*9.2-109*	*%REC*	1	7/22/2020 12:51 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.1	mg/Kg-dry	1	7/20/2020 01:29 PM
Surr: Cyclooctane	*98.2*		*55-135*	*%REC*	1	7/20/2020 01:29 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**3.0**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.25	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	ND		4.5	mg/Kg-dry	1	7/20/2020 07:18 PM
Barium	ND		9.0	mg/Kg-dry	1	7/20/2020 07:18 PM
Cadmium	ND		0.90	mg/Kg-dry	1	7/20/2020 07:18 PM
Chromium	**4.6**		**1.8**	**mg/Kg-dry**	1	7/20/2020 07:18 PM
Lead	ND		4.5	mg/Kg-dry	1	7/20/2020 07:18 PM
Selenium	ND		2.7	mg/Kg-dry	1	7/20/2020 07:18 PM
Silver	ND		0.90	mg/Kg-dry	1	7/20/2020 07:18 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
2-Methylnaphthalene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Acenaphthene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Acenaphthylene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Anthracene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Benzo(a)anthracene	**690**		**100**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Benzo(a)pyrene	**830**		**100**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Benzo(b)fluoranthene	**1,100**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Benzo(g,h,i)perylene	**480**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Benzo(k)fluoranthene	**440**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Carbazole	**230**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Chrysene	**950**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Dibenzo(a,h)anthracene	**130**		**100**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Dibenzofuran	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Fluoranthene	**2,300**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Fluorene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-13:SB-14 0-2
Lab ID: 2007619-09
Collection Date: 7/16/2020 05:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	**550**		**100**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Naphthalene	ND		210	µg/Kg-dry	1	7/20/2020 09:09 PM
Phenanthrene	**1,300**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Pyrene	**1,600**		**210**	**µg/Kg-dry**	1	7/20/2020 09:09 PM
Surr: 2-Fluorobiphenyl	*73.7*		*30-116*	*%REC*	1	7/20/2020 09:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1,1-Trichloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1,2,2-Tetrachloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1,2-Trichloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1-Dichloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1-Dichloroethene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,1-Dichloropropene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2,3-Trichlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2,3-Trichloropropane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2,4-Trichlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2,4-Trimethylbenzene	**22**		**5.2**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
1,2-Dibromo-3-chloropropane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2-Dibromoethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2-Dichlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2-Dichloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,2-Dichloropropane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,3,5-Trimethylbenzene	**6.0**		**5.2**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
1,3-Dichlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,3-Dichloropropane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
1,4-Dichlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
2,2-Dichloropropane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
2-Butanone	ND		52	µg/Kg-dry	1	7/20/2020 01:10 PM
2-Chlorotoluene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
2-Hexanone	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
4-Chlorotoluene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
4-Methyl-2-pentanone	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Acetone	ND		52	µg/Kg-dry	1	7/20/2020 01:10 PM
Benzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Bromobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Bromochloromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Bromodichloromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Bromoform	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Bromomethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Carbon disulfide	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-13:SB-14 0-2 **Lab ID:** 2007619-09

Collection Date: 7/16/2020 05:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Chlorobenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Chloroethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Chloroform	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Chloromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
cis-1,2-Dichloroethene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
cis-1,3-Dichloropropene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Dibromochloromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Dibromomethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Dichlorodifluoromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Ethylbenzene	**5.4**		**5.2**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
Hexachlorobutadiene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Isopropylbenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
m,p-Xylene	**29**		**10**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
Methyl tert-butyl ether	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Methylene chloride	ND		21	µg/Kg-dry	1	7/20/2020 01:10 PM
Naphthalene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
n-Butylbenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
n-Propylbenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
o-Xylene	**20**		**5.2**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
p-Isopropyltoluene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
sec-Butylbenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Styrene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
tert-Butylbenzene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Tetrachloroethene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Toluene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
trans-1,2-Dichloroethene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
trans-1,3-Dichloropropene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Trichloroethene	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Trichlorofluoromethane	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Vinyl chloride	ND		5.2	µg/Kg-dry	1	7/20/2020 01:10 PM
Xylenes, Total	**49**		**15**	**µg/Kg-dry**	1	7/20/2020 01:10 PM
Surr: 4-Bromofluorobenzene	*96.4*		*62.7-159*	*%REC*	1	7/20/2020 01:10 PM
Surr: Dibromofluoromethane	*120*		*88.4-146*	*%REC*	1	7/20/2020 01:10 PM
Surr: Toluene-d8	*111*		*83-124*	*%REC*	1	7/20/2020 01:10 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-12:SB-16 0-2
Lab ID: 2007619-10
Collection Date: 7/16/2020 06:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**12**			**% of sample**	1	7/20/2020
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Acenaphthene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Anthracene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Benzo(a)anthracene	ND		110	µg/Kg-dry	1	7/20/2020 09:29 PM
Benzo(a)pyrene	ND		110	µg/Kg-dry	1	7/20/2020 09:29 PM
Benzo(b)fluoranthene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Benzo(g,h,i)perylene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Carbazole	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Chrysene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Dibenzo(a,h)anthracene	ND		110	µg/Kg-dry	1	7/20/2020 09:29 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Fluoranthene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Fluorene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Indeno(1,2,3-cd)pyrene	ND		110	µg/Kg-dry	1	7/20/2020 09:29 PM
Naphthalene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Phenanthrene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Pyrene	ND		230	µg/Kg-dry	1	7/20/2020 09:29 PM
Surr: 2-Fluorobiphenyl	*63.1*		*30-116*	*%REC*	1	7/20/2020 09:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-12:SB-16 0-2 **Lab ID:** 2007619-10

Collection Date: 7/16/2020 06:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
2-Butanone	ND		57	µg/Kg-dry	1	7/20/2020 01:30 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Acetone	ND		57	µg/Kg-dry	1	7/20/2020 01:30 PM
Benzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Bromoform	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Chloroethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Chloroform	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
m,p-Xylene	ND		11	µg/Kg-dry	1	7/20/2020 01:30 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Methylene chloride	ND		23	µg/Kg-dry	1	7/20/2020 01:30 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-12:SB-16 0-2
Lab ID: 2007619-10
Collection Date: 7/16/2020 06:15 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Styrene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Toluene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	7/20/2020 01:30 PM
Xylenes, Total	ND		17	µg/Kg-dry	1	7/20/2020 01:30 PM
Surr: 4-Bromofluorobenzene	*96.7*		*62.7-159*	*%REC*	1	7/20/2020 01:30 PM
Surr: Dibromofluoromethane	*123*		*88.4-146*	*%REC*	1	7/20/2020 01:30 PM
Surr: Toluene-d8	*86.3*		*83-124*	*%REC*	1	7/20/2020 01:30 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-10:SB-18 4-6
Lab ID: 2007619-11
Collection Date: 7/17/2020 01:08 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/21/2020**	Analyst: **CAA**
TPH C10-C20	ND		19	mg/Kg-dry	1	7/22/2020 01:10 PM
TPH C20-C34	**68**		**19**	**mg/Kg-dry**	1	7/22/2020 01:10 PM
Surr: Nonane	*39.8*		*22.6-112*	*%REC*	1	7/22/2020 01:10 PM
Surr: Pentacosane	*52.8*		*9.2-109*	*%REC*	1	7/22/2020 01:10 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/20/2020 01:54 PM
Surr: Cyclooctane	*102*		*55-135*	*%REC*	1	7/20/2020 01:54 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**21**			**% of sample**	1	7/20/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/20/2020**	Analyst: **SLT**
Mercury	ND		0.35	mg/Kg-dry	1	7/21/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/20/2020**	Analyst: **AZ**
Arsenic	**11**		**5.2**	**mg/Kg-dry**	1	7/20/2020 07:22 PM
Barium	**30**		**10**	**mg/Kg-dry**	1	7/20/2020 07:22 PM
Cadmium	ND		1.0	mg/Kg-dry	1	7/20/2020 07:22 PM
Chromium	**15**		**2.1**	**mg/Kg-dry**	1	7/20/2020 07:22 PM
Lead	**15**		**5.2**	**mg/Kg-dry**	1	7/20/2020 07:22 PM
Selenium	ND		3.1	mg/Kg-dry	1	7/20/2020 07:22 PM
Silver	ND		1.0	mg/Kg-dry	1	7/20/2020 07:22 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Anthracene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	7/20/2020 09:49 PM
Benzo(a)pyrene	ND		130	µg/Kg-dry	1	7/20/2020 09:49 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Carbazole	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Chrysene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Dibenzo(a,h)anthracene	ND		130	µg/Kg-dry	1	7/20/2020 09:49 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Fluorene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-10:SB-18 4-6
Lab ID: 2007619-11
Collection Date: 7/17/2020 01:08 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		130	µg/Kg-dry	1	7/20/2020 09:49 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Pyrene	ND		250	µg/Kg-dry	1	7/20/2020 09:49 PM
Surr: 2-Fluorobiphenyl	*69.0*		*30-116*	*%REC*	1	7/20/2020 09:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
2-Butanone	ND		63	µg/Kg-dry	1	7/20/2020 01:51 PM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
2-Hexanone	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Acetone	ND		63	µg/Kg-dry	1	7/20/2020 01:51 PM
Benzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Bromobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Bromoform	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Bromomethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-10:SB-18 4-6 **Lab ID:** 2007619-11

Collection Date: 7/17/2020 01:08 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Chloroethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Chloroform	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Chloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Dibromomethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
m,p-Xylene	ND		13	µg/Kg-dry	1	7/20/2020 01:51 PM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Methylene chloride	ND		25	µg/Kg-dry	1	7/20/2020 01:51 PM
Naphthalene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
o-Xylene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Styrene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Toluene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Trichloroethene	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	7/20/2020 01:51 PM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/20/2020 01:51 PM
Surr: 4-Bromofluorobenzene	*94.8*		*62.7-159*	*%REC*	1	7/20/2020 01:51 PM
Surr: Dibromofluoromethane	*121*		*88.4-146*	*%REC*	1	7/20/2020 01:51 PM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	7/20/2020 01:51 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-11:SB-12 4-6
Lab ID: 2007619-12
Collection Date: 7/17/2020 12:59 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/20/2020
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/20/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Anthracene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 10:09 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 10:09 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Carbazole	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Chrysene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/20/2020 10:09 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Fluorene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/20/2020 10:09 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Pyrene	ND		240	µg/Kg-dry	1	7/20/2020 10:09 PM
Surr: 2-Fluorobiphenyl	*54.8*		*30-116*	*%REC*	1	7/20/2020 10:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC

Project: 241EN00715; Former IRS Bldg Covington,KY **Work Order:** 2007619

Sample ID: REC-11:SB-12 4-6 **Lab ID:** 2007619-12

Collection Date: 7/17/2020 12:59 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
2-Butanone	ND		61	µg/Kg-dry	1	7/20/2020 02:11 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Acetone	ND		61	µg/Kg-dry	1	7/20/2020 02:11 PM
Benzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Bromoform	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Chloroform	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/20/2020 02:11 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Methylene chloride	ND		24	µg/Kg-dry	1	7/20/2020 02:11 PM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM

Note:

ALS Environmental

Date: *22-Jul-20*

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
Work Order: 2007619
Sample ID: REC-11:SB-12 4-6
Lab ID: 2007619-12
Collection Date: 7/17/2020 12:59 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Styrene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Toluene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/20/2020 02:11 PM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/20/2020 02:11 PM
Surr: 4-Bromofluorobenzene	*94.8*		*62.7-159*	*%REC*	1	7/20/2020 02:11 PM
Surr: Dibromofluoromethane	*123*		*88.4-146*	*%REC*	1	7/20/2020 02:11 PM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	7/20/2020 02:11 PM

Note:

QC BATCH REPORT

Batch ID: **67716** Instrument ID **GC3** Method: **SW8082**

mblk Sample ID: **MBLK-67716-67716** Units: **mg/Kg** Analysis Date: **7/21/2020 01:24 PM**

Client ID: Run ID: **GC3_200721A** SeqNo: **2272131** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Aroclor 1262	ND	0.10								
Aroclor 1268	ND	0.10								
Surr: Decachlorobiphenyl	0.086	0	*0.1*	0	*86*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.098	0	*0.1*	0	*98*	*20.7-158*	0			

LCS Sample ID: **LCS-67716-67716** Units: **mg/Kg** Analysis Date: **7/21/2020**

Client ID: Run ID: **GC3_200721A** SeqNo: **2272156** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.508	0.10	2	0	75.4	58.2-144	0			
Surr: Decachlorobiphenyl	0.086	0	*0.1*	0	*86*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.096	0	*0.1*	0	*96*	*20.7-158*	0			

MS Sample ID: **2007607-03B** Units: **mg/Kg** Analysis Date: **7/21/2020 02:37 PM**

Client ID: Run ID: **GC3_200721A** SeqNo: **2272134** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.784	0.099	1.986	0	89.8	25.9-135	0			
Surr: Decachlorobiphenyl	0.1053	0	*0.0993*	0	*106*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.1092	0	*0.0993*	0	*110*	*20.7-158*	0			

MSD Sample ID: **2007607-03BMSD** Units: **mg/Kg** Analysis Date: **7/21/2020**

Client ID: Run ID: **GC3_200721A** SeqNo: **2272157** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.81	0.10	2.002	0	90.4	25.9-135	1.784	1.46	53	
Surr: Decachlorobiphenyl	0.1081	0	*0.1001*	0	*108*	*14.9-146*	0.1053	*2.67*		
Surr: Tetrachloro-m-xylene	0.08609	0	*0.1001*	0	*86*	*20.7-158*	0.1092	*23.7*		

The following samples were analyzed in this batch: 2007619-05B

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67720** Instrument ID **GC5** Method: **SW8015B**

mblk Sample ID: **MBLK-67720-67720** Units: **mg/Kg** Analysis Date: **7/22/2020 10:16 AM**
Client ID: Run ID: **GC5_200722A** SeqNo: **2272882** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	ND	15								
TPH C10-C20	ND	15								
TPH C20-C34	ND	15								
Surr: Nonane	2.329	0	*8.333*	0	*27.9*	*22.6-112*	0			
Surr: Pentacosane	0.9749	0	*8.333*	0	*11.7*	*9.2-109*	0			

lcs Sample ID: **LCS-67720-67720** Units: **mg/Kg** Analysis Date: **7/22/2020 10:35 AM**
Client ID: Run ID: **GC5_200722A** SeqNo: **2272883** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	72.67	15	83.33	0	87.2	49.2-132	0			
Surr: Nonane	3.09	0	*8.333*	0	*37.1*	*22.6-112*	0			
Surr: Pentacosane	4.317	0	*8.333*	0	*51.8*	*9.2-109*	0			

ms Sample ID: **2007563-07BMS** Units: **mg/Kg** Analysis Date: **7/22/2020 01:49 PM**
Client ID: Run ID: **GC5_200722A** SeqNo: **2272893** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	147.3	15	83.47	32.58	137	15.3-133	0			S
Surr: Nonane	3.186	0	*8.347*	0	*38.2*	*22.6-112*	0			
Surr: Pentacosane	4.31	0	*8.347*	0	*51.6*	*9.2-109*	0			

msd Sample ID: **2007563-07BMSD** Units: **mg/Kg** Analysis Date: **7/22/2020 02:08 PM**
Client ID: Run ID: **GC5_200722A** SeqNo: **2272894** Prep Date: **7/21/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	127.9	15	83.06	32.58	115	15.3-133	147.3	14.1	21	
Surr: Nonane	2.838	0	*8.305*	0	*34.2*	*22.6-112*	3.186	*11.6*		
Surr: Pentacosane	4.32	0	*8.305*	0	*52*	*9.2-109*	4.31	*0.243*		

The following samples were analyzed in this batch:

2007619-01B	2007619-02B	2007619-04B
2007619-05B	2007619-07B	2007619-08B
2007619-09B	2007619-11B	

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **R179247** Instrument ID **GC6** Method: **SW8015A**

MBLK Sample ID: **MBLK-R179247** Units: **mg/Kg** Analysis Date: **7/20/2020 09:12 AM**
Client ID: Run ID: **GC6_200720A** SeqNo: **2271018** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	ND	2.0								
Surr: Cyclooctane	586	0	*500*	0	*117*	*55-135*	0			

LCS Sample ID: **TPH LCS 20-R179247** Units: **mg/Kg** Analysis Date: **7/20/2020 08:46 AM**
Client ID: Run ID: **GC6_200720A** SeqNo: **2271017** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	22.3	2.0	20	0	112	57.2-164	0			
Surr: Cyclooctane	603	0	*500*	0	*121*	*55-135*	0			

MS Sample ID: **2007509-05A** Units: **mg/Kg** Analysis Date: **7/20/2020 10:03 AM**
Client ID: Run ID: **GC6_200720A** SeqNo: **2271020** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	22.55	2.0	20	0	113	42.3-144	0			
Surr: Cyclooctane	603.3	0	*500*	0	*121*	*55-135*	0			

MSD Sample ID: **2007509-05A** Units: **mg/Kg** Analysis Date: **7/20/2020 10:29 AM**
Client ID: Run ID: **GC6_200720A** SeqNo: **2271021** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	20.71	2.0	20	0	104	42.3-144	22.55	8.51	15.7	
Surr: Cyclooctane	577.7	0	*500*	0	*116*	*55-135*	603.3	*4.33*		

The following samples were analyzed in this batch:

2007619-01A	2007619-02A	2007619-04A
2007619-05A	2007619-07A	2007619-08A
2007619-09A	2007619-11A	

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67709** Instrument ID **HG1** Method: **SW7471A**

MBLK Sample ID: **MBLK-67709-67709** Units: **mg/Kg** Analysis Date: **7/21/2020**
Client ID: Run ID: **HG1_200721A** SeqNo: **2271785** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.30								

LCS Sample ID: **LCS-67709-67709** Units: **mg/Kg** Analysis Date: **7/21/2020**
Client ID: Run ID: **HG1_200721A** SeqNo: **2271786** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.799	0.29	1.089	0	73.4	70.1-161	0			

MS Sample ID: **2007618-01A MS** Units: **mg/Kg** Analysis Date: **7/21/2020**
Client ID: Run ID: **HG1_200721A** SeqNo: **2271788** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.6559	0.25	0.702	0.05825	85.1	69-147	0			

MSD Sample ID: **2007618-01A MSD** Units: **mg/Kg** Analysis Date: **7/21/2020**
Client ID: Run ID: **HG1_200721A** SeqNo: **2271789** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.7316	0.28	0.7666	0.05825	87.8	69-147	0.6559	10.9	20	

The following samples were analyzed in this batch:

2007619-01B	2007619-02B	2007619-03B
2007619-05B	2007619-07B	2007619-08B
2007619-09B	2007619-11B	

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67708** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **MBLK-67708-67708** Units: **mg/Kg** Analysis Date: **7/20/2020 05:29 PM**
Client ID: Run ID: **ICP3_200720B** SeqNo: **2271810** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Barium	ND	10								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Selenium	ND	3.0								
Silver	ND	1.0								

LCS Sample ID: **LCS-67708-67708** Units: **mg/Kg** Analysis Date: **7/20/2020 05:38 PM**
Client ID: Run ID: **ICP3_200720B** SeqNo: **2271812** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	102.7	5.0	100	0	103	80-120	0			
Barium	99.77	10	100	0	99.8	81.6-112	0			
Cadmium	103.2	1.0	100	0	103	86-114	0			
Chromium	101.8	2.0	100	0	102	74.6-110	0			
Lead	103.9	5.0	100	0	104	82.9-117	0			
Selenium	103.5	3.0	100	0	104	86.2-110	0			
Silver	106.8	1.0	100	0	107	77.1-118	0			

LCSD Sample ID: **LCSD-67708-67708** Units: **mg/Kg** Analysis Date: **7/20/2020 05:42 PM**
Client ID: Run ID: **ICP3_200720B** SeqNo: **2271813** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	104.8	5.0	100	0	105	80-120	102.7	2.02	20	
Barium	100.8	10	100	0	101	81.6-112	99.77	1.03	20	
Cadmium	105.7	1.0	100	0	106	86-114	103.2	2.39	20	
Chromium	100.6	2.0	100	0	101	74.6-110	101.8	1.19	20	
Lead	106.5	5.0	100	0	106	82.9-117	103.9	2.47	20	
Selenium	106	3.0	100	0	106	86.2-110	103.5	2.39	20	
Silver	104.7	1.0	100	0	105	77.1-118	106.8	1.99	20	

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67708** Instrument ID **ICP3** Method: **SW6010B**

MS Sample ID: **2007625-02A MS** Units: **mg/Kg** Analysis Date: **7/20/2020 07:36 PM**
Client ID: Run ID: **ICP3_200720B** SeqNo: **2271835** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	93.19	4.0	79.24	5.618	111	75-125	0			
Barium	190.4	7.9	79.24	87.73	130	75-125	0			S
Cadmium	85.74	0.79	79.24	0.3258	108	75-125	0			
Chromium	102.5	1.6	79.24	14.74	111	69.3-116	0			
Lead	99.29	4.0	79.24	19.11	101	69.3-107	0			
Selenium	77.08	2.4	79.24	-4.3	103	75-125	0			
Silver	93.03	0.79	79.24	-0.00309	117	75-125	0			

MSD Sample ID: **2007625-02A MSD** Units: **mg/Kg** Analysis Date: **7/20/2020 07:41 PM**
Client ID: Run ID: **ICP3_200720B** SeqNo: **2271838** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	80.73	3.7	74.68	5.618	101	75-125	93.19	14.3	20	
Barium	169.2	7.5	74.68	87.73	109	75-125	190.4	11.8	20	
Cadmium	76.25	0.75	74.68	0.3258	102	75-125	85.74	11.7	20	
Chromium	92.76	1.5	74.68	14.74	104	69.3-116	102.5	9.94	20	
Lead	89.92	3.7	74.68	19.11	94.8	69.3-107	99.29	9.9	20	
Selenium	68.53	2.2	74.68	-4.3	97.5	75-125	77.08	11.7	20	
Silver	85.74	0.75	74.68	-0.00309	115	75-125	93.03	8.16	20	

The following samples were analyzed in this batch:

2007619-01B	2007619-02B	2007619-03B
2007619-05B	2007619-07B	2007619-08B
2007619-09B	2007619-11B	

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67705** Instrument ID **SVMS1** Method: **SW8270C**

mblk Sample ID: **MBLK-67705-67705** Units: **µg/Kg** Analysis Date: **7/20/2020 02:28 PM**
Client ID: Run ID: **SVMS1_200720A** SeqNo: **2271858** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	100								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	100								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	2140	0	*3330*	0	*64.3*	*30-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67705** Instrument ID **SVMS1** Method: **SW8270C**

lcs Sample ID: **LCS-67705-67705** Units: **µg/Kg** Analysis Date: **7/20/2020 02:48 PM**
Client ID: Run ID: **SVMS1_200720A** SeqNo: **2271859** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2605	200	3330	0	78.2	58.3-104	0			
2-Methylnaphthalene	2453	200	3330	0	73.7	54.9-103	0			
Acenaphthene	2457	200	3330	0	73.8	52-119	0			
Acenaphthylene	2871	200	3330	0	86.2	46-118	0			
Anthracene	2631	200	3330	0	79	53.8-114	0			
Benzo(a)anthracene	2597	100	3330	0	78	48-121	0			
Benzo(a)pyrene	3075	100	3330	0	92.4	40.1-114	0			
Benzo(b)fluoranthene	2737	200	3330	0	82.2	44-115	0			
Benzo(g,h,i)perylene	2629	200	3330	0	79	41.8-122	0			
Benzo(k)fluoranthene	2936	200	3330	0	88.2	39.5-116	0			
Carbazole	2601	200	3330	0	78.1	66-102	0			
Chrysene	2680	200	3330	0	80.5	49.2-115	0			
Dibenzo(a,h)anthracene	2743	100	3330	0	82.4	41.7-123	0			
Dibenzofuran	2505	200	3330	0	75.2	60.7-100	0			
Fluoranthene	2660	200	3330	0	79.9	52.7-118	0			
Fluorene	2427	200	3330	0	72.9	51.6-109	0			
Indeno(1,2,3-cd)pyrene	2837	100	3330	0	85.2	41.1-124	0			
Naphthalene	2347	200	3330	0	70.5	42.5-103	0			
Phenanthrene	2517	200	3330	0	75.6	49.7-100	0			
Pyrene	2633	200	3330	0	79.1	50.7-109	0			
Surr: 2-Fluorobiphenyl	2288	0	*3330*	0	*68.7*	*30-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67705** Instrument ID **SVMS1** Method: **SW8270C**

MS Sample ID: **2007619-10BMS** Units: **µg/Kg** Analysis Date: **7/20/2020 04:28 PM**
Client ID: **REC-12:SB-16 0-2** Run ID: **SVMS1_200720A** SeqNo: **2271864** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2660	200	3326	0	80	34.7-108	0			
2-Methylnaphthalene	2497	200	3326	0	75.1	38.6-102	0			
Acenaphthene	2495	200	3326	0	75	44-108	0			
Acenaphthylene	2931	200	3326	0	88.1	43.6-110	0			
Anthracene	2718	200	3326	0	81.7	39.5-104	0			
Benzo(a)anthracene	2646	100	3326	4.639	79.4	47-114	0			
Benzo(a)pyrene	3077	100	3326	7.29	92.3	43.8-115	0			
Benzo(b)fluoranthene	2828	200	3326	0	85	40-106	0			
Benzo(g,h,i)perylene	2510	200	3326	5.964	75.3	38.2-110	0			
Benzo(k)fluoranthene	2973	200	3326	0	89.4	48.6-107	0			
Carbazole	2650	200	3326	0	79.7	41.9-101	0			
Chrysene	2712	200	3326	0	81.6	18.8-140	0			
Dibenzo(a,h)anthracene	2715	100	3326	0	81.6	46-116	0			
Dibenzofuran	2558	200	3326	0	76.9	42.7-98.2	0			
Fluoranthene	2720	200	3326	7.952	81.6	35.1-111	0			
Fluorene	2471	200	3326	0	74.3	42.8-106	0			
Indeno(1,2,3-cd)pyrene	2747	100	3326	6.627	82.4	33-115	0			
Naphthalene	2419	200	3326	0	72.7	18.2-126	0			
Phenanthrene	2591	200	3326	5.302	77.7	31.2-127	0			
Pyrene	2637	200	3326	6.627	79.1	33.7-129	0			
Surr: 2-Fluorobiphenyl	2338	0	*3326*	0	*70.3*	*30-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **67705** Instrument ID **SVMS1** Method: **SW8270C**

MSD Sample ID: **2007619-10BMSD** Units: **µg/Kg** Analysis Date: **7/20/2020 04:48 PM**
Client ID: **REC-12:SB-16 0-2** Run ID: **SVMS1_200720A** SeqNo: **2271865** Prep Date: **7/20/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2399	200	3330	0	72	34.7-108	2660	10.3	20	
2-Methylnaphthalene	2277	200	3330	0	68.4	38.6-102	2497	9.22	20	
Acenaphthene	2350	200	3330	0	70.6	40-108	2495	6	20	
Acenaphthylene	2760	200	3330	0	82.9	43.6-110	2931	6	20	
Anthracene	2578	200	3330	0	77.4	39.5-104	2718	5.3	24	
Benzo(a)anthracene	2571	100	3330	4.639	77.1	47-114	2646	2.88	21	
Benzo(a)pyrene	2966	100	3330	7.29	88.9	43.8-115	3077	3.66	20	
Benzo(b)fluoranthene	2744	200	3330	0	82.4	40-106	2828	3.02	20	
Benzo(g,h,i)perylene	2419	200	3330	5.964	72.5	38.2-110	2510	3.68	20	
Benzo(k)fluoranthene	2823	200	3330	0	84.8	48.6-107	2973	5.2	24	
Carbazole	2513	200	3330	0	75.5	41.9-101	2650	5.34	20	
Chrysene	2585	200	3330	0	77.6	18.8-140	2712	4.8	19	
Dibenzo(a,h)anthracene	2593	100	3330	0	77.9	46-116	2715	4.59	20	
Dibenzofuran	2408	200	3330	0	72.3	42.7-98.2	2558	6.04	20	
Fluoranthene	2607	200	3330	7.952	78.1	35.1-111	2720	4.24	20	
Fluorene	2327	200	3330	0	69.9	42.8-106	2471	6	20	
Indeno(1,2,3-cd)pyrene	2681	100	3330	6.627	80.3	33-115	2747	2.44	20	
Naphthalene	2101	200	3330	0	63.1	18.2-126	2419	14.1	20	
Phenanthrene	2481	200	3330	5.302	74.3	31.2-127	2591	4.33	20	
Pyrene	2563	200	3330	6.627	76.8	33.7-129	2637	2.84	20	
Surr: 2-Fluorobiphenyl	2137	0	*3330*	0	*64.2*	*30-116*	2338	*8.98*		

The following samples were analyzed in this batch:

2007619-01B	2007619-02B	2007619-03B
2007619-04B	2007619-05B	2007619-06B
2007619-07B	2007619-08B	2007619-09B
2007619-10B	2007619-11B	2007619-12B

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **R179266** Instrument ID **VMS2** Method: **SW8260B**

mblk Sample ID: **MBLK-R179266** Units: **µg/Kg** Analysis Date: **7/20/2020 05:59 AM**
Client ID: Run ID: **VMS2_200720B** SeqNo: **2271555** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

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

Batch ID: **R179266** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	47.62	0	*50*	0	*95.2*	*62.7-159*	0
Surr: Dibromofluoromethane	56.01	0	*50*	0	*112*	*88.4-146*	0
Surr: Toluene-d8	50.07	0	*50*	0	*100*	*83-124*	0

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **R179266** Instrument ID **VMS2** Method: **SW8260B**

lcs Sample ID: **lcs-R179266** Units: **µg/Kg** Analysis Date: **7/20/2020 06:27 AM**
Client ID: Run ID: **VMS2_200720B** SeqNo: **2271556** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.81	5.0	50	0	97.6	53.6-149	0			
1,1-Dichloroethene	33.25	5.0	50	0	66.5	38.8-176	0			
1,2-Dichloroethane	50.07	5.0	50	0	100	54.4-145	0			
1,3-Dichlorobenzene	43.54	5.0	50	0	87.1	54.2-137	0			
1,4-Dichlorobenzene	43.04	5.0	50	0	86.1	52.8-135	0			
Benzene	42.33	5.0	50	0	84.7	56-148	0			
Carbon tetrachloride	53.19	5.0	50	0	106	51.9-151	0			
Chlorobenzene	45.64	5.0	50	0	91.3	55.4-137	0			
Chloroform	44.71	5.0	50	0	89.4	51.1-147	0			
cis-1,2-Dichloroethene	37.82	5.0	50	0	75.6	47.6-149	0			
Ethylbenzene	45.02	5.0	50	0	90	55.8-142	0			
m,p-Xylene	95.49	10	100	0	95.5	57.6-141	0			
Styrene	50	5.0	50	0	100	59.6-143	0			
Tetrachloroethene	48.21	5.0	50	0	96.4	56.2-160	0			
Toluene	43.09	5.0	50	0	86.2	56-143	0			
Trichloroethene	45.23	5.0	50	0	90.5	56.5-143	0			
Surr: 4-Bromofluorobenzene	46.27	0	*50*	0	*92.5*	*62.7-159*	0			
Surr: Dibromofluoromethane	49.17	0	*50*	0	*98.3*	*88.4-146*	0			
Surr: Toluene-d8	50.05	0	*50*	0	*100*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **R179266** Instrument ID **VMS2** Method: **SW8260B**

ms Sample ID: **2007446-04a** Units: **µg/Kg** Analysis Date: **7/20/2020 09:48 AM**
Client ID: Run ID: **VMS2_200720B** SeqNo: **2271579** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	64.53	5.0	50	0	129	66.9-140	0			
1,1-Dichloroethene	49.35	5.0	50	0	98.7	41.4-161	0			
1,2-Dichloroethane	65.18	5.0	50	0	130	58.9-137	0			
1,3-Dichlorobenzene	55.77	5.0	50	0	112	56.3-126	0			
1,4-Dichlorobenzene	54.86	5.0	50	0	110	58.3-122	0			
Benzene	56.8	5.0	50	0	114	35.8-162	0			
Carbon tetrachloride	67.69	5.0	50	0	135	53.2-137	0			
Chlorobenzene	58.75	5.0	50	0	118	65.6-137	0			
Chloroform	62.63	5.0	50	0	125	58-130	0			
cis-1,2-Dichloroethene	61.21	5.0	50	0	122	52.9-138	0			
Ethylbenzene	59.48	5.0	50	1.32	116	57.5-134	0			
m,p-Xylene	127.8	10	100	1.74	126	56.4-135	0			
Styrene	64.13	5.0	50	0	128	60.9-135	0			
Tetrachloroethene	45.12	5.0	50	0	90.2	52.1-160	0			
Toluene	58.49	5.0	50	0	117	67.7-135	0			
Trichloroethene	58.08	5.0	50	0	116	56.5-136	0			
Surr: 4-Bromofluorobenzene	46.79	0	*50*	0	*93.6*	*62.7-159*	0			
Surr: Dibromofluoromethane	51.26	0	*50*	0	*103*	*88.4-146*	0			
Surr: Toluene-d8	50.27	0	*50*	0	*101*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007619
Project: 241EN00715; Former IRS Bldg Covington,KY

QC BATCH REPORT

Batch ID: **R179266** Instrument ID **VMS2** Method: **SW8260B**

msd Sample ID: **2007446-04a** Units: **µg/Kg** Analysis Date: **7/20/2020 10:08 AM**
Client ID: Run ID: **VMS2_200720B** SeqNo: **2271557** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.85	5.0	50	0	104	66.9-140	64.53	21.8	31.2	
1,1-Dichloroethene	40.12	5.0	50	0	80.2	41.4-161	49.35	20.6	38.1	
1,2-Dichloroethane	53.07	5.0	50	0	106	58.9-137	65.18	20.5	26.2	
1,3-Dichlorobenzene	43.49	5.0	50	0	87	56.3-126	55.77	24.7	21	R
1,4-Dichlorobenzene	42.71	5.0	50	0	85.4	58.3-122	54.86	24.9	28.7	
Benzene	44.89	5.0	50	0	89.8	35.8-162	56.8	23.4	23.6	
Carbon tetrachloride	58.34	5.0	50	0	117	53.2-137	67.69	14.8	32.3	
Chlorobenzene	45.5	5.0	50	0	91	65.6-137	58.75	25.4	20	R
Chloroform	50.45	5.0	50	0	101	58-130	62.63	21.5	28.2	
cis-1,2-Dichloroethene	43.16	5.0	50	0	86.3	52.9-138	61.21	34.6	23.7	R
Ethylbenzene	45.51	5.0	50	1.32	88.4	57.5-134	59.48	26.6	24.9	R
m,p-Xylene	97.5	10	100	1.74	95.8	56.4-135	127.8	26.9	25.1	R
Styrene	49.03	5.0	50	0	98.1	60.9-135	64.13	26.7	22.8	R
Tetrachloroethene	34.33	5.0	50	0	68.7	52.1-160	45.12	27.2	24.7	R
Toluene	47.03	5.0	50	0	94.1	67.7-135	58.49	21.7	20	R
Trichloroethene	45.09	5.0	50	0	90.2	56.5-136	58.08	25.2	20	R
Surr: 4-Bromofluorobenzene	47.44	0	*50*	0	*94.9*	*62.7-159*	46.79	*1.38*		
Surr: Dibromofluoromethane	53.1	0	*50*	0	*106*	*88.4-146*	51.26	*3.53*		
Surr: Toluene-d8	51.68	0	*50*	0	*103*	*83-124*	50.27	*2.77*		

The following samples were analyzed in this batch:

2007619-01a	2007619-02a	2007619-03a
2007619-04a	2007619-05a	2007619-06a
2007619-07a	2007619-08a	2007619-09a
2007619-10a	2007619-11a	2007619-12a

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

ALS Environmental

Date: 22-Jul-20

Client: ATC Group Services LLC
Project: 241EN00715; Former IRS Bldg Covington,KY
WorkOrder: **2007619**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **ATC-CINCINNATI** Date/Time Received: **20-Jul-20 08:10**

Work Order: **2007619** Received by: **RDN**

Checklist completed by Rob Nieman 20-Jul-20 Reviewed by: Rob Nieman 22-Jul-20

eSignature Date eSignature Date

Matrices: soil
Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.4		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Field Chain-of-Custody Record

Page 1 of 2

60832 REV 10/2017

2007619

Ship To: **ALS | Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

☐ REGULAR Status ☒ RUSH Status — RESULTS REQUIRED BY: (Date) 24 hr rush
CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: ☐ YES ☐ NO BUSTR: ☐ YES ☐ NO NELAC: ☐ YES ☐ NO

Date: 7/20/20 Purchase Order No.:

Company Name: ATC Group Services Project No.: 241ENV00715

Address: 11121 Canal Rd. Sampling Site: Former IRS Building

Sharonville OH 45241 Covington, KY
City State Zip

Person to Contact: Mike Luessen Billing Address (If different):

Email Address: michael.luessen@atcgs.com

Telephone (513): 383-1145

Alternate Contact: nick.stewart@atcgs.com

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUESTED: VOC	PAH	RCRA Metals	TPH	PCBs	BTEX				
01	REC-20: SB-5 4-6	7/16/20	9:33	9	S	2	X	X	X	X						
02	REC-7: SB-6 6-8		10:17				X	X	X	X						
03	REC-18: SB-10 6-8		11:06				X	X	X							
04	REC-19: SB-9 8-10		11:41					X	X	X		X				
05	REC-17: SB-11 4-6		14:05				X	X	X	X	X					
06	REC-15: SB-13 2-4		14:42				X	X								
07	REC-16: SB-15 12-14		15:42				X	X	X	X						
08	REC-14: SB-17 14-16		16:40				X	X	X	X						
09	REC-13: SB-14 0-2		17:50				X	X	X	X						
10	REC-12: SB-16 0-2	↓	18:13	↓	↓	↓	X	X								

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Nick Stewart	7/20/20		7/20/20 8:10
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 2.4 °C TAKEN WITH IR#: 119063 (119059)

COOLING METHOD: NONE (COOLER) (WET ICE) DRY ICE ICE PACK

DELIVERY METHOD: (CLIENT) DROP BOX FEDEX UPS
STD MAIL PRTY MAIL ALS COURIER OTHER:

CUSTODY SEALS: (NOT REQUIRED) COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

Field Chain-of-Custody Record

Page 2 of 2

60833

REV 10/2017

Ship To: **ALS | Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

2007619

☐ REGULAR Status ☒ RUSH Status — RESULTS REQUIRED BY: (Date) 24 hr rush
CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: ☐ YES ☐ NO BUSTR: ☐ YES ☐ NO NELAC: ☐ YES ☐ NO

Date: 7/20/20 Purchase Order No.:

Company Name: All Group Services Project No.: 241EN00715

Address: 11121 Canal Rd Sampling Site: Former IBS Building

Stonerville City OH State 45241 Zip Covington, KY

Person to Contact: Mike Luessen Billing Address (if different):

Email Address: michael.luessen@atcgs.com

Telephone (513): 383-4645

Alternate Contact: nick.stewart@atcgs.com

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUESTED: VOC	PAH	RCRA metals	TPH						
11	REC-10: SB-18 4-6	7/17/20	13:08	9	S	2	x	x	x	x						
12	REC-11: SB-17 4-6	7/17/20	12:59	9	S	2	x	x								

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
[signature]	7/20/20	[signature]	7/20/20 8:10
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: °C TAKEN WITH IR#: 119063 119059

COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK

DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS
STD MAIL PRTY MAIL ALS COURIER OTHER:

CUSTODY SEALS: NOT REQUIRED COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

23-Jul-2020

Mike Luessen
ATC Group Services LLC
11121 Canal Road
Cincinnati, OH 45241-1861

Tel: 513-771-2112
Fax: 513-782-6908

Re: Former IRS Bldg. Covington, KY; PN.: 241EN00715 Work Order: **2007704**

Dear Mike,

ALS Environmental received 7 samples on 21-Jul-2020 05:00 PM for the analyses presented in the following report.

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

QC sample results for this data met 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 Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 46.

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

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 23-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715
Work Order: **2007704**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2007704-01	REC-1:SB-1 10-12	Soil		7/20/2020 16:15	7/21/2020 17:00	☐
2007704-02	REC-2:SB-2 6-8	Soil		7/20/2020 15:01	7/21/2020 17:00	☐
2007704-03	REC-3:SB-3 8-10	Soil		7/20/2020 13:04	7/21/2020 17:00	☐
2007704-04	REC-3:SB-3 4-6	Soil		7/20/2020 13:06	7/21/2020 17:00	☐
2007704-05	REC-3:SB-3 10-12	Soil		7/20/2020 13:11	7/21/2020 17:00	☐
2007704-06	REC-4:SB-4 2-4	Soil		7/20/2020 13:58	7/21/2020 17:00	☐
2007704-07	REC-3:SB-8 8-10	Soil		7/20/2020 09:59	7/21/2020 17:00	☐

ALS Environmental

Date: 23-Jul-20

Client:	ATC Group Services LLC
Project:	Former IRS Bldg. Covington, KY; PN.: 241EN00715
Work Order:	2007704

Case Narrative

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

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met 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.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-1:SB-1 10-12 **Lab ID:** 2007704-01

Collection Date: 7/20/2020 04:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/22/2020**	Analyst: **CAA**
TPH C10-C20	ND		19	mg/Kg-dry	1	7/22/2020
TPH C20-C34	ND		19	mg/Kg-dry	1	7/22/2020
Surr: Nonane	*40.2*		*22.6-112*	*%REC*	1	7/22/2020
Surr: Pentacosane	*47.2*		*9.2-109*	*%REC*	1	7/22/2020
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/22/2020 12:43 PM
Surr: Cyclooctane	*103*		*55-135*	*%REC*	1	7/22/2020 12:43 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**21**			**% of sample**	1	7/22/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/22/2020**	Analyst: **SLT**
Mercury	ND		0.29	mg/Kg-dry	1	7/22/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/22/2020**	Analyst: **AZ**
Arsenic	**11**		**5.5**	**mg/Kg-dry**	1	7/22/2020 12:11 PM
Barium	**54**		**11**	**mg/Kg-dry**	1	7/22/2020 12:11 PM
Cadmium	ND		1.1	mg/Kg-dry	1	7/22/2020 12:11 PM
Chromium	**23**		**2.2**	**mg/Kg-dry**	1	7/22/2020 12:11 PM
Lead	**13**		**5.5**	**mg/Kg-dry**	1	7/22/2020 12:11 PM
Selenium	ND		3.3	mg/Kg-dry	1	7/22/2020 12:11 PM
Silver	ND		1.1	mg/Kg-dry	1	7/22/2020 12:11 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/22/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Anthracene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	7/22/2020 10:38 PM
Benzo(a)pyrene	ND		130	µg/Kg-dry	1	7/22/2020 10:38 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Carbazole	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Chrysene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Dibenzo(a,h)anthracene	ND		130	µg/Kg-dry	1	7/22/2020 10:38 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Fluorene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM

Note:

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-1:SB-1 10-12 **Lab ID:** 2007704-01
Collection Date: 7/20/2020 04:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		130	µg/Kg-dry	1	7/22/2020 10:38 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Pyrene	ND		250	µg/Kg-dry	1	7/22/2020 10:38 PM
Surr: 2-Fluorobiphenyl	*74.3*		*30-116*	*%REC*	1	7/22/2020 10:38 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
2-Butanone	ND		63	µg/Kg-dry	1	7/22/2020 08:29 AM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
2-Hexanone	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Acetone	ND		63	µg/Kg-dry	1	7/22/2020 08:29 AM
Benzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Bromobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Bromoform	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Bromomethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-1:SB-1 10-12 **Lab ID:** 2007704-01

Collection Date: 7/20/2020 04:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Chloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Chloroform	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Chloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Dibromomethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
m,p-Xylene	ND		13	µg/Kg-dry	1	7/22/2020 08:29 AM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Methylene chloride	ND		25	µg/Kg-dry	1	7/22/2020 08:29 AM
Naphthalene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
o-Xylene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Styrene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Toluene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Trichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	7/22/2020 08:29 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/22/2020 08:29 AM
Surr: 4-Bromofluorobenzene	*102*		*62.7-159*	*%REC*	1	7/22/2020 08:29 AM
Surr: Dibromofluoromethane	*115*		*88.4-146*	*%REC*	1	7/22/2020 08:29 AM
Surr: Toluene-d8	*105*		*83-124*	*%REC*	1	7/22/2020 08:29 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-2:SB-2 6-8 **Lab ID:** 2007704-02
Collection Date: 7/20/2020 03:01 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/22/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/22/2020
TPH C20-C34	ND		18	mg/Kg-dry	1	7/22/2020
Surr: Nonane	*40.5*		*22.6-112*	*%REC*	1	7/22/2020
Surr: Pentacosane	*45.3*		*9.2-109*	*%REC*	1	7/22/2020
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/22/2020 01:08 PM
Surr: Cyclooctane	*102*		*55-135*	*%REC*	1	7/22/2020 01:08 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/22/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/22/2020**	Analyst: **SLT**
Mercury	ND		0.33	mg/Kg-dry	1	7/22/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/22/2020**	Analyst: **AZ**
Arsenic	**11**		**4.4**	**mg/Kg-dry**	1	7/22/2020 12:15 PM
Barium	**39**		**8.8**	**mg/Kg-dry**	1	7/22/2020 12:15 PM
Cadmium	ND		0.88	mg/Kg-dry	1	7/22/2020 12:15 PM
Chromium	**19**		**1.8**	**mg/Kg-dry**	1	7/22/2020 12:15 PM
Lead	**16**		**4.4**	**mg/Kg-dry**	1	7/22/2020 12:15 PM
Selenium	ND		2.6	mg/Kg-dry	1	7/22/2020 12:15 PM
Silver	ND		0.88	mg/Kg-dry	1	7/22/2020 12:15 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/22/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Anthracene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 10:57 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 10:57 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Carbazole	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Chrysene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 10:57 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Fluorene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM

Note:

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-2:SB-2 6-8 **Lab ID:** 2007704-02
Collection Date: 7/20/2020 03:01 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 10:57 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Pyrene	ND		240	µg/Kg-dry	1	7/22/2020 10:57 PM
Surr: 2-Fluorobiphenyl	*66.6*		*30-116*	*%REC*	1	7/22/2020 10:57 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
2-Butanone	ND		61	µg/Kg-dry	1	7/22/2020 08:54 AM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Acetone	ND		61	µg/Kg-dry	1	7/22/2020 08:54 AM
Benzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Bromoform	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-2:SB-2 6-8 **Lab ID:** 2007704-02

Collection Date: 7/20/2020 03:01 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Chloroform	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/22/2020 08:54 AM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Methylene chloride	ND		24	µg/Kg-dry	1	7/22/2020 08:54 AM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Styrene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Toluene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/22/2020 08:54 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/22/2020 08:54 AM
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	7/22/2020 08:54 AM
Surr: Dibromofluoromethane	*114*		*88.4-146*	*%REC*	1	7/22/2020 08:54 AM
Surr: Toluene-d8	*105*		*83-124*	*%REC*	1	7/22/2020 08:54 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-3:SB-3 8-10 **Lab ID:** 2007704-03
Collection Date: 7/20/2020 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/22/2020**	Analyst: **CAA**
TPH C10-C20	**20**		**19**	**mg/Kg-dry**	1	7/22/2020
TPH C20-C34	**180**		**19**	**mg/Kg-dry**	1	7/22/2020
Surr: Nonane	*36.7*		*22.6-112*	*%REC*	1	7/22/2020
Surr: Pentacosane	*43.9*		*9.2-109*	*%REC*	1	7/22/2020
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.5	mg/Kg-dry	1	7/22/2020 01:34 PM
Surr: Cyclooctane	*103*		*55-135*	*%REC*	1	7/22/2020 01:34 PM
PCBS			**SW8082**		Prep Date: **7/22/2020**	Analyst: **TSA**
Aroclor 1016	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1221	ND		0.25	mg/Kg-dry	1	7/23/2020
Aroclor 1232	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1242	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1248	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1254	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1260	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1262	ND		0.13	mg/Kg-dry	1	7/23/2020
Aroclor 1268	ND		0.13	mg/Kg-dry	1	7/23/2020
Surr: Decachlorobiphenyl	*68.0*		*14.9-146*	*%REC*	1	7/23/2020
Surr: Tetrachloro-m-xylene	*82.0*		*20.7-158*	*%REC*	1	7/23/2020
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**21**			**% of sample**	1	7/22/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/22/2020**	Analyst: **SLT**
Mercury	**1.3**		**0.34**	**mg/Kg-dry**	1	7/22/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/22/2020**	Analyst: **AZ**
Arsenic	**10**		**5.3**	**mg/Kg-dry**	1	7/22/2020 12:20 PM
Barium	**110**		**11**	**mg/Kg-dry**	1	7/22/2020 12:20 PM
Cadmium	ND		1.1	mg/Kg-dry	1	7/22/2020 12:20 PM
Chromium	**20**		**2.1**	**mg/Kg-dry**	1	7/22/2020 12:20 PM
Lead	**34**		**5.3**	**mg/Kg-dry**	1	7/22/2020 12:20 PM
Selenium	ND		3.2	mg/Kg-dry	1	7/22/2020 12:20 PM
Silver	ND		1.1	mg/Kg-dry	1	7/22/2020 12:20 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/22/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Acenaphthene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM

Note:

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-3:SB-3 8-10 **Lab ID:** 2007704-03
Collection Date: 7/20/2020 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	7/22/2020 11:17 PM
Benzo(a)pyrene	ND		130	µg/Kg-dry	1	7/22/2020 11:17 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Carbazole	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Chrysene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Dibenzo(a,h)anthracene	ND		130	µg/Kg-dry	1	7/22/2020 11:17 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Fluoranthene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Fluorene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Indeno(1,2,3-cd)pyrene	**150**		**130**	**µg/Kg-dry**	1	7/22/2020 11:17 PM
Naphthalene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Phenanthrene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Pyrene	ND		250	µg/Kg-dry	1	7/22/2020 11:17 PM
Surr: 2-Fluorobiphenyl	*65.4*		*30-116*	*%REC*	1	7/22/2020 11:17 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
2-Butanone	ND		63	µg/Kg-dry	1	7/22/2020 09:19 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-3 8-10 **Lab ID:** 2007704-03

Collection Date: 7/20/2020 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
2-Hexanone	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Acetone	**120**		**63**	**µg/Kg-dry**	1	7/22/2020 09:19 AM
Benzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Bromobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Bromoform	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Bromomethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Chloroethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Chloroform	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Chloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Dibromomethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
m,p-Xylene	ND		13	µg/Kg-dry	1	7/22/2020 09:19 AM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Methylene chloride	ND		25	µg/Kg-dry	1	7/22/2020 09:19 AM
Naphthalene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
o-Xylene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Styrene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Toluene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-3 8-10 **Lab ID:** 2007704-03

Collection Date: 7/20/2020 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Trichloroethene	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	7/22/2020 09:19 AM
Xylenes, Total	ND		19	µg/Kg-dry	1	7/22/2020 09:19 AM
Surr: 4-Bromofluorobenzene	*103*		*62.7-159*	*%REC*	1	7/22/2020 09:19 AM
Surr: Dibromofluoromethane	*117*		*88.4-146*	*%REC*	1	7/22/2020 09:19 AM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	7/22/2020 09:19 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-3 4-6 **Lab ID:** 2007704-04

Collection Date: 7/20/2020 01:06 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**14**			**% of sample**	1	7/22/2020
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1,1-Trichloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1,2,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1,2-Trichloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1-Dichloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1-Dichloroethene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,1-Dichloropropene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2,3-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2,3-Trichloropropane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2,4-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2,4-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2-Dibromo-3-chloropropane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2-Dibromoethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2-Dichloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,3,5-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,3-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,3-Dichloropropane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
1,4-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
2,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
2-Butanone	ND		58	µg/Kg-dry	1	7/22/2020 09:44 AM
2-Chlorotoluene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
2-Hexanone	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
4-Chlorotoluene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
4-Methyl-2-pentanone	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Acetone	ND		58	µg/Kg-dry	1	7/22/2020 09:44 AM
Benzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Bromobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Bromochloromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Bromodichloromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Bromoform	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Bromomethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Carbon disulfide	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Carbon tetrachloride	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Chlorobenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-3 4-6 **Lab ID:** 2007704-04

Collection Date: 7/20/2020 01:06 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Chloroform	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Chloromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
cis-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
cis-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Dibromochloromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Dibromomethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Dichlorodifluoromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Ethylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Hexachlorobutadiene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Isopropylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/22/2020 09:44 AM
Methyl tert-butyl ether	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Methylene chloride	ND		23	µg/Kg-dry	1	7/22/2020 09:44 AM
Naphthalene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
n-Butylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
n-Propylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
o-Xylene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
p-Isopropyltoluene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
sec-Butylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Styrene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
tert-Butylbenzene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Tetrachloroethene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Toluene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
trans-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
trans-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Trichloroethene	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Trichlorofluoromethane	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Vinyl chloride	ND		5.8	µg/Kg-dry	1	7/22/2020 09:44 AM
Xylenes, Total	ND		17	µg/Kg-dry	1	7/22/2020 09:44 AM
Surr: 4-Bromofluorobenzene	*99.5*		*62.7-159*	*%REC*	1	7/22/2020 09:44 AM
Surr: Dibromofluoromethane	*118*		*88.4-146*	*%REC*	1	7/22/2020 09:44 AM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	1	7/22/2020 09:44 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-3:SB-3 10-12 **Lab ID:** 2007704-05
Collection Date: 7/20/2020 01:11 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**19**			**% of sample**	1	7/22/2020
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
2-Butanone	ND		62	µg/Kg-dry	1	7/22/2020 10:09 AM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
2-Hexanone	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Acetone	ND		62	µg/Kg-dry	1	7/22/2020 10:09 AM
Benzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Bromobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Bromoform	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Bromomethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-3 10-12 **Lab ID:** 2007704-05

Collection Date: 7/20/2020 01:11 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Chloroform	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Chloromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Dibromomethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/22/2020 10:09 AM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Methylene chloride	ND		25	µg/Kg-dry	1	7/22/2020 10:09 AM
Naphthalene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
o-Xylene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Styrene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Toluene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Trichloroethene	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	7/22/2020 10:09 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/22/2020 10:09 AM
Surr: 4-Bromofluorobenzene	*98.3*		*62.7-159*	*%REC*	1	7/22/2020 10:09 AM
Surr: Dibromofluoromethane	*113*		*88.4-146*	*%REC*	1	7/22/2020 10:09 AM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	1	7/22/2020 10:09 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-4:SB-4 2-4 **Lab ID:** 2007704-06
Collection Date: 7/20/2020 01:58 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/22/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/22/2020
TPH C20-C34	**20**		**18**	**mg/Kg-dry**	1	7/22/2020
Surr: Nonane	*27.9*		*22.6-112*	*%REC*	1	7/22/2020
Surr: Pentacosane	*41.8*		*9.2-109*	*%REC*	1	7/22/2020
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/22/2020 01:59 PM
Surr: Cyclooctane	*105*		*55-135*	*%REC*	1	7/22/2020 01:59 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/22/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/22/2020**	Analyst: **SLT**
Mercury	ND		0.33	mg/Kg-dry	1	7/22/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/22/2020**	Analyst: **AZ**
Arsenic	**9.8**		**4.4**	**mg/Kg-dry**	1	7/22/2020 12:24 PM
Barium	**35**		**8.8**	**mg/Kg-dry**	1	7/22/2020 12:24 PM
Cadmium	ND		0.88	mg/Kg-dry	1	7/22/2020 12:24 PM
Chromium	**19**		**1.8**	**mg/Kg-dry**	1	7/22/2020 12:24 PM
Lead	**10**		**4.4**	**mg/Kg-dry**	1	7/22/2020 12:24 PM
Selenium	ND		2.6	mg/Kg-dry	1	7/22/2020 12:24 PM
Silver	ND		0.88	mg/Kg-dry	1	7/22/2020 12:24 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/22/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Anthracene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 11:37 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 11:37 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Carbazole	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Chrysene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 11:37 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Fluorene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM

Note:

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-4:SB-4 2-4 **Lab ID:** 2007704-06
Collection Date: 7/20/2020 01:58 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 11:37 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Pyrene	ND		240	µg/Kg-dry	1	7/22/2020 11:37 PM
Surr: 2-Fluorobiphenyl	*68.3*		*30-116*	*%REC*	1	7/22/2020 11:37 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
2-Butanone	ND		61	µg/Kg-dry	1	7/22/2020 10:35 AM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Acetone	ND		61	µg/Kg-dry	1	7/22/2020 10:35 AM
Benzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Bromoform	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-4:SB-4 2-4 **Lab ID:** 2007704-06

Collection Date: 7/20/2020 01:58 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Chloroform	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/22/2020 10:35 AM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Methylene chloride	ND		24	µg/Kg-dry	1	7/22/2020 10:35 AM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Styrene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Toluene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/22/2020 10:35 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/22/2020 10:35 AM
Surr: 4-Bromofluorobenzene	*98.9*		*62.7-159*	*%REC*	1	7/22/2020 10:35 AM
Surr: Dibromofluoromethane	*119*		*88.4-146*	*%REC*	1	7/22/2020 10:35 AM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	1	7/22/2020 10:35 AM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-3:SB-8 8-10 **Lab ID:** 2007704-07
Collection Date: 7/20/2020 09:59 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/22/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/22/2020
TPH C20-C34	ND		18	mg/Kg-dry	1	7/22/2020
Surr: Nonane	*41.0*		*22.6-112*	*%REC*	1	7/22/2020
Surr: Pentacosane	*48.0*		*9.2-109*	*%REC*	1	7/22/2020
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/22/2020 02:25 PM
Surr: Cyclooctane	*102*		*55-135*	*%REC*	1	7/22/2020 02:25 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/22/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/22/2020**	Analyst: **SLT**
Mercury	ND		0.34	mg/Kg-dry	1	7/22/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/22/2020**	Analyst: **AZ**
Arsenic	**14**		**4.6**	**mg/Kg-dry**	1	7/22/2020 12:28 PM
Barium	**29**		**9.3**	**mg/Kg-dry**	1	7/22/2020 12:28 PM
Cadmium	ND		0.93	mg/Kg-dry	1	7/22/2020 12:28 PM
Chromium	**11**		**1.9**	**mg/Kg-dry**	1	7/22/2020 12:28 PM
Lead	**12**		**4.6**	**mg/Kg-dry**	1	7/22/2020 12:28 PM
Selenium	ND		2.8	mg/Kg-dry	1	7/22/2020 12:28 PM
Silver	ND		0.93	mg/Kg-dry	1	7/22/2020 12:28 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/22/2020**	Analyst: **MRJ**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Anthracene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 11:57 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 11:57 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Carbazole	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Chrysene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/22/2020 11:57 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Fluorene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704
Sample ID: REC-3:SB-8 8-10 **Lab ID:** 2007704-07
Collection Date: 7/20/2020 09:59 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/22/2020 11:57 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Pyrene	ND		240	µg/Kg-dry	1	7/22/2020 11:57 PM
Surr: 2-Fluorobiphenyl	*64.7*		*30-116*	*%REC*	1	7/22/2020 11:57 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
2-Butanone	ND		61	µg/Kg-dry	1	7/22/2020 12:43 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Acetone	ND		61	µg/Kg-dry	1	7/22/2020 12:43 PM
Benzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Bromoform	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM

Note:

ALS Environmental

Date: *23-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007704

Sample ID: REC-3:SB-8 8-10 **Lab ID:** 2007704-07

Collection Date: 7/20/2020 09:59 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Chloroform	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/22/2020 12:43 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Methylene chloride	ND		24	µg/Kg-dry	1	7/22/2020 12:43 PM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Styrene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Toluene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/22/2020 12:43 PM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/22/2020 12:43 PM
Surr: 4-Bromofluorobenzene	*97.7*		*62.7-159*	*%REC*	1	7/22/2020 12:43 PM
Surr: Dibromofluoromethane	*118*		*88.4-146*	*%REC*	1	7/22/2020 12:43 PM
Surr: Toluene-d8	*105*		*83-124*	*%REC*	1	7/22/2020 12:43 PM

Note:

Batch ID: **67750** Instrument ID **GC5** Method: **SW8015B**

MBLK Sample ID: **MBLK-67750-67750** Units: **mg/Kg** Analysis Date: **7/22/2020**

Client ID: Run ID: **GC5_200722B** SeqNo: **2273355** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	ND	15								
TPH C10-C20	ND	15								
TPH C20-C34	15	15								
Surr: Nonane	2.827	0	*8.333*	0	*33.9*	*22.6-112*	0			
Surr: Pentacosane	3.698	0	*8.333*	0	*44.4*	*9.2-109*	0			

LCS Sample ID: **LCS-67750-67750** Units: **mg/Kg** Analysis Date: **7/22/2020**

Client ID: Run ID: **GC5_200722B** SeqNo: **2273356** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	76.77	15	83.33	0	92.1	49.2-132	0			
Surr: Nonane	3.22	0	*8.333*	0	*38.6*	*22.6-112*	0			
Surr: Pentacosane	4.336	0	*8.333*	0	*52*	*9.2-109*	0			

MS Sample ID: **2007704-07BMS** Units: **mg/Kg** Analysis Date: **7/22/2020**

Client ID: **REC-3:SB-8 8-10** Run ID: **GC5_200722B** SeqNo: **2273363** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	67.64	15	82.78	4.61	76.1	15.3-133	0			
Surr: Nonane	3.469	0	*8.278*	0	*41.9*	*22.6-112*	0			
Surr: Pentacosane	3.925	0	*8.278*	0	*47.4*	*9.2-109*	0			

MSD Sample ID: **2007704-07BMSD** Units: **mg/Kg** Analysis Date: **7/22/2020**

Client ID: **REC-3:SB-8 8-10** Run ID: **GC5_200722B** SeqNo: **2273364** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	65.13	15	82.64	4.61	73.2	15.3-133	67.64	3.78	21	
Surr: Nonane	3.366	0	*8.264*	0	*40.7*	*22.6-112*	3.469	*3.01*		
Surr: Pentacosane	3.678	0	*8.264*	0	*44.5*	*9.2-109*	3.925	*6.48*		

The following samples were analyzed in this batch:

2007704-01B	2007704-02B	2007704-03A
2007704-06B	2007704-07B	

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67760** Instrument ID **GC3** Method: **SW8082**

MBLK Sample ID: **MBLK-67760-67760** Units: **mg/Kg** Analysis Date: **7/23/2020**
Client ID: Run ID: **GC3_200723A** SeqNo: **2273838** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Aroclor 1262	ND	0.10								
Aroclor 1268	ND	0.10								
Surr: Decachlorobiphenyl	0.096	0	*0.1*	0	*96*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.092	0	*0.1*	0	*92*	*20.7-158*	0			

LCS Sample ID: **LCS-67760-67760** Units: **mg/Kg** Analysis Date: **7/23/2020**
Client ID: Run ID: **GC3_200723A** SeqNo: **2273839** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.944	0.10	2	0	97.2	58.2-144	0			
Surr: Decachlorobiphenyl	0.098	0	*0.1*	0	*98*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.092	0	*0.1*	0	*92*	*20.7-158*	0			

MS Sample ID: **2007704-03AMS** Units: **mg/Kg** Analysis Date: **7/23/2020**
Client ID: **REC-3:SB-3 8-10** Run ID: **GC3_200723A** SeqNo: **2273841** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.87	0.10	1.998	0	93.6	25.9-135	0			
Surr: Decachlorobiphenyl	0.07592	0	*0.0999*	0	*76*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.09191	0	*0.0999*	0	*92*	*20.7-158*	0			

MSD Sample ID: **2007704-03AMSD** Units: **mg/Kg** Analysis Date: **7/23/2020**
Client ID: **REC-3:SB-3 8-10** Run ID: **GC3_200723A** SeqNo: **2273842** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.814	0.10	2	0	90.7	25.9-135	1.87	3.05	53	
Surr: Decachlorobiphenyl	0.074	0	*0.1*	0	*74*	*14.9-146*	0.07592	*2.57*		
Surr: Tetrachloro-m-xylene	0.098	0	*0.1*	0	*98*	*20.7-158*	0.09191	*6.42*		

The following samples were analyzed in this batch: 2007704-03A

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179337** Instrument ID **GC6** Method: **SW8015A**

MBLK Sample ID: **MBLK-R179337** Units: **mg/Kg** Analysis Date: **7/22/2020 09:19 AM**
Client ID: Run ID: **GC6_200722A** SeqNo: **2272808** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	ND	2.0								
Surr: Cyclooctane	541.3	0	*500*	0	*108*	*55-135*	0			

LCS Sample ID: **TPH LCS 20-R179337** Units: **mg/Kg** Analysis Date: **7/22/2020 08:53 AM**
Client ID: Run ID: **GC6_200722A** SeqNo: **2272807** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	22.34	2.0	20	0	112	57.2-164	0			
Surr: Cyclooctane	571.1	0	*500*	0	*114*	*55-135*	0			

MS Sample ID: **2007698-01A** Units: **mg/Kg** Analysis Date: **7/22/2020 11:26 AM**
Client ID: Run ID: **GC6_200722A** SeqNo: **2272811** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	20.68	2.0	20	1.12	97.8	42.3-144	0			
Surr: Cyclooctane	539.7	0	*500*	0	*108*	*55-135*	0			

MSD Sample ID: **2007698-01A** Units: **mg/Kg** Analysis Date: **7/22/2020 10:35 AM**
Client ID: Run ID: **GC6_200722A** SeqNo: **2272809** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	19.88	2.0	20	1.12	93.8	42.3-144	20.68	3.94	15.7	
Surr: Cyclooctane	542.8	0	*500*	0	*109*	*55-135*	539.7	*0.564*		

The following samples were analyzed in this batch:

2007704-01A	2007704-02A	2007704-03A
2007704-06A	2007704-07A	

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67742** Instrument ID **HG1** Method: **SW7471A**

MBLK Sample ID: **MBLK-67742-67742** Units: **mg/Kg** Analysis Date: **7/22/2020**
Client ID: Run ID: **HG1_200722B** SeqNo: **2272728** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.30								

LCS Sample ID: **LCS-67742-67742** Units: **mg/Kg** Analysis Date: **7/22/2020**
Client ID: Run ID: **HG1_200722B** SeqNo: **2272729** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.8826	0.30	1.111	0	79.5	70.1-161	0			

MS Sample ID: **2007612-01A MS** Units: **mg/Kg** Analysis Date: **7/22/2020**
Client ID: Run ID: **HG1_200722B** SeqNo: **2272731** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.803	0.27	0.7404	0.02289	105	69-147	0			

MSD Sample ID: **2007612-01A MSD** Units: **mg/Kg** Analysis Date: **7/22/2020**
Client ID: Run ID: **HG1_200722B** SeqNo: **2272732** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.794	0.27	0.7516	0.02289	103	69-147	0.803	1.12	20	

The following samples were analyzed in this batch:

2007704-01B	2007704-02B	2007704-03A
2007704-06B	2007704-07B	

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67741** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **MBLK-67741-67741** Units: **mg/Kg** Analysis Date: **7/22/2020 11:50 AM**
Client ID: Run ID: **ICP3_200722A** SeqNo: **2272896** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Barium	ND	10								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Selenium	ND	3.0								
Silver	ND	1.0								

LCS Sample ID: **LCS-67741-67741** Units: **mg/Kg** Analysis Date: **7/22/2020 11:54 AM**
Client ID: Run ID: **ICP3_200722A** SeqNo: **2272897** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	98.1	5.0	100	0	98.1	80-120	0			
Barium	94.21	10	100	0	94.2	81.6-112	0			
Cadmium	98.57	1.0	100	0	98.6	86-114	0			
Chromium	107.4	2.0	100	0	107	74.6-110	0			
Lead	99.88	5.0	100	0	99.9	82.9-117	0			
Selenium	98.59	3.0	100	0	98.6	86.2-110	0			
Silver	99.05	1.0	100	0	99	77.1-118	0			

LCSD Sample ID: **LCSD-67741-67741** Units: **mg/Kg** Analysis Date: **7/22/2020 11:58 AM**
Client ID: Run ID: **ICP3_200722A** SeqNo: **2272898** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	98.35	5.0	100	0	98.4	80-120	98.1	0.255	20	
Barium	94.29	10	100	0	94.3	81.6-112	94.21	0.0849	20	
Cadmium	98	1.0	100	0	98	86-114	98.57	0.58	20	
Chromium	118.2	2.0	100	0	118	74.6-120	107.4	9.57	20	
Lead	100	5.0	100	0	100	82.9-117	99.88	0.12	20	
Selenium	99.93	3.0	100	0	99.9	86.2-110	98.59	1.35	20	
Silver	98.19	1.0	100	0	98.2	77.1-118	99.05	0.872	20	

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67741** Instrument ID **ICP3** Method: **SW6010B**

MS Sample ID: **2007704-07B MS** Units: **mg/Kg** Analysis Date: **7/22/2020 12:41 PM**
Client ID: **REC-3:SB-8 8-10** Run ID: **ICP3_200722A** SeqNo: **2272906** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	83.18	3.9	78.25	11.15	92.1	75-125	0			
Barium	90.85	7.8	78.25	23.7	85.8	75-125	0			
Cadmium	73.48	0.78	78.25	-0.02603	93.9	75-125	0			
Chromium	76.76	1.6	78.25	9.422	86.1	69.3-116	0			
Lead	79.34	3.9	78.25	9.467	89.3	69.3-107	0			
Selenium	70.66	2.3	78.25	-2.846	93.9	75-125	0			
Silver	74.77	0.78	78.25	0.114	95.4	75-125	0			

MSD Sample ID: **2007704-07B MSD** Units: **mg/Kg** Analysis Date: **7/22/2020 12:46 PM**
Client ID: **REC-3:SB-8 8-10** Run ID: **ICP3_200722A** SeqNo: **2272907** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	93.53	4.0	80.91	11.15	102	75-125	83.18	11.7	20	
Barium	108.3	8.1	80.91	23.7	105	75-125	90.85	17.6	20	
Cadmium	81.8	0.81	80.91	-0.02603	101	75-125	73.48	10.7	20	
Chromium	90.21	1.6	80.91	9.422	99.9	69.3-116	76.76	16.1	20	
Lead	92.48	4.0	80.91	9.467	103	69.3-107	79.34	15.3	20	
Selenium	78.5	2.4	80.91	-2.846	101	75-125	70.66	10.5	20	
Silver	88.51	0.81	80.91	0.114	109	75-125	74.77	16.8	20	

The following samples were analyzed in this batch:

2007704-01B	2007704-02B	2007704-03A
2007704-06B	2007704-07B	

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

QC BATCH REPORT

Batch ID: **67743** Instrument ID **SVMS1** Method: **SW8270C**

mblk Sample ID: **MBLK-67743-67743** Units: **µg/Kg** Analysis Date: **7/22/2020 04:38 PM**
Client ID: Run ID: **SVMS1_200722A** SeqNo: **2273461** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	100								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	100								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	2509	0	*3330*	0	*75.3*	*30-116*	0			

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

QC BATCH REPORT

Batch ID: **67743** Instrument ID **SVMS1** Method: **SW8270C**

lcs Sample ID: **LCS-67743-67743** Units: **µg/Kg** Analysis Date: **7/22/2020 04:58 PM**
Client ID: Run ID: **SVMS1_200722A** SeqNo: **2273462** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2777	200	3330	0	83.4	58.3-104	0			
2-Methylnaphthalene	2637	200	3330	0	79.2	54.9-103	0			
Acenaphthene	2611	200	3330	0	78.4	52-119	0			
Acenaphthylene	3053	200	3330	0	91.7	46-118	0			
Anthracene	2803	200	3330	0	84.2	53.8-114	0			
Benzo(a)anthracene	2711	100	3330	0	81.4	48-121	0			
Benzo(a)pyrene	3204	100	3330	0	96.2	40.1-114	0			
Benzo(b)fluoranthene	2934	200	3330	0	88.1	44-115	0			
Benzo(g,h,i)perylene	2559	200	3330	0	76.9	41.8-122	0			
Benzo(k)fluoranthene	3061	200	3330	0	91.9	39.5-116	0			
Carbazole	2786	200	3330	0	83.7	66-102	0			
Chrysene	2778	200	3330	0	83.4	49.2-115	0			
Dibenzo(a,h)anthracene	2748	100	3330	0	82.5	41.7-123	0			
Dibenzofuran	2654	200	3330	0	79.7	60.7-100	0			
Fluoranthene	2935	200	3330	0	88.1	52.7-118	0			
Fluorene	2585	200	3330	0	77.6	51.6-109	0			
Indeno(1,2,3-cd)pyrene	2911	100	3330	0	87.4	41.1-124	0			
Naphthalene	2518	200	3330	0	75.6	42.5-103	0			
Phenanthrene	2664	200	3330	0	80	49.7-100	0			
Pyrene	2893	200	3330	0	86.9	50.7-109	0			
Surr: 2-Fluorobiphenyl	2533	0	*3330*	0	*76.1*	*30-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67743** Instrument ID **SVMS1** Method: **SW8270C**

ms Sample ID: **2007704-06BMS** Units: **µg/Kg** Analysis Date: **7/22/2020 05:18 PM**
Client ID: **REC-4:SB-4 2-4** Run ID: **SVMS1_200722A** SeqNo: **2273464** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2719	200	3330	0	81.6	34.7-108	0			
2-Methylnaphthalene	2537	200	3330	0	76.2	38.6-102	0			
Acenaphthene	2543	200	3330	3.316	76.3	44-108	0			
Acenaphthylene	2933	200	3330	3.979	88	43.6-110	0			
Anthracene	2779	200	3330	0	83.4	39.5-104	0			
Benzo(a)anthracene	2680	100	3330	19.89	79.9	47-114	0			
Benzo(a)pyrene	3183	100	3330	20.56	95	43.8-115	0			
Benzo(b)fluoranthene	2848	200	3330	31.83	84.6	40-106	0			
Benzo(g,h,i)perylene	2575	200	3330	0	77.3	38.2-110	0			
Benzo(k)fluoranthene	3077	200	3330	0	92.4	48.6-107	0			
Carbazole	2755	200	3330	5.968	82.6	41.9-101	0			
Chrysene	2786	200	3330	3.979	83.5	18.8-140	0			
Dibenzo(a,h)anthracene	2746	100	3330	5.305	82.3	46-116	0			
Dibenzofuran	2596	200	3330	0	78	42.7-98.2	0			
Fluoranthene	2914	200	3330	54.38	85.9	35.1-111	0			
Fluorene	2535	200	3330	0	76.1	42.8-106	0			
Indeno(1,2,3-cd)pyrene	2911	100	3330	13.26	87	33-115	0			
Naphthalene	2412	200	3330	0	72.4	18.2-126	0			
Phenanthrene	2676	200	3330	25.86	79.6	31.2-127	0			
Pyrene	2878	200	3330	0	86.4	33.7-129	0			
Surr: 2-Fluorobiphenyl	2357	0	*3330*	0	*70.8*	*30-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67743** Instrument ID **SVMS1** Method: **SW8270C**

msd Sample ID: **2007704-06BMSD** Units: **µg/Kg** Analysis Date: **7/22/2020 05:38 PM**
Client ID: **REC-4:SB-4 2-4** Run ID: **SVMS1_200722A** SeqNo: **2273466** Prep Date: **7/22/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	2351	200	3319	0	70.9	34.7-108	2719	14.5	20	
2-Methylnaphthalene	2221	200	3319	0	66.9	38.6-102	2537	13.3	20	
Acenaphthene	2275	200	3319	3.316	68.4	40-108	2543	11.1	20	
Acenaphthylene	2632	200	3319	3.979	79.2	43.6-110	2933	10.8	20	
Anthracene	2589	200	3319	0	78	39.5-104	2779	7.08	24	
Benzo(a)anthracene	2595	100	3319	19.89	77.6	47-114	2680	3.23	21	
Benzo(a)pyrene	3090	100	3319	20.56	92.5	43.8-115	3183	2.99	20	
Benzo(b)fluoranthene	2767	200	3319	31.83	82.4	40-106	2848	2.89	20	
Benzo(g,h,i)perylene	2490	200	3319	0	75	38.2-110	2575	3.33	20	
Benzo(k)fluoranthene	2983	200	3319	0	89.9	48.6-107	3077	3.08	24	
Carbazole	2586	200	3319	5.968	77.7	41.9-101	2755	6.34	20	
Chrysene	2692	200	3319	3.979	81	18.8-140	2786	3.42	19	
Dibenzo(a,h)anthracene	2684	100	3319	5.305	80.7	46-116	2746	2.29	20	
Dibenzofuran	2314	200	3319	0	69.7	42.7-98.2	2596	11.5	20	
Fluoranthene	2799	200	3319	54.38	82.7	35.1-111	2914	4.04	20	
Fluorene	2300	200	3319	0	69.3	42.8-106	2535	9.72	20	
Indeno(1,2,3-cd)pyrene	2772	100	3319	13.26	83.1	33-115	2911	4.88	20	
Naphthalene	2040	200	3319	0	61.5	18.2-126	2412	16.7	20	
Phenanthrene	2496	200	3319	25.86	74.4	31.2-127	2676	6.97	20	
Pyrene	2747	200	3319	0	82.8	33.7-129	2878	4.66	20	
Surr: 2-Fluorobiphenyl	2162	0	*3319*	0	*65.1*	*30-116*	2357	*8.64*		

The following samples were analyzed in this batch:

2007704-01B	2007704-02B	2007704-03A
2007704-06B	2007704-07B	

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179332** Instrument ID **VMS2** Method: **SW8260B**

mblk Sample ID: **mblk-R179332** Units: **µg/Kg** Analysis Date: **7/22/2020 07:06 AM**
Client ID: Run ID: **VMS2_200722A** SeqNo: **2272696** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

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

QC BATCH REPORT

Batch ID: **R179332** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	50.76	0	*50*	0	*102*	*62.7-159*	0
Surr: Dibromofluoromethane	57.35	0	*50*	0	*115*	*88.4-146*	0
Surr: Toluene-d8	52.44	0	*50*	0	*105*	*83-124*	0

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179332** Instrument ID **VMS2** Method: **SW8260B**

lcs Sample ID: **lcs-R179332** Units: **µg/Kg** Analysis Date: **7/22/2020 08:04 AM**
Client ID: Run ID: **VMS2_200722A** SeqNo: **2272698** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.3	5.0	50	0	105	53.6-149	0			
1,1-Dichloroethene	49.29	5.0	50	0	98.6	38.8-176	0			
1,2-Dichloroethane	53.37	5.0	50	0	107	54.4-145	0			
1,3-Dichlorobenzene	43.21	5.0	50	0	86.4	54.2-137	0			
1,4-Dichlorobenzene	42.45	5.0	50	0	84.9	52.8-135	0			
Benzene	53.69	5.0	50	0	107	56-148	0			
Carbon tetrachloride	53.81	5.0	50	0	108	51.9-151	0			
Chlorobenzene	46.2	5.0	50	0	92.4	55.4-137	0			
Chloroform	58.19	5.0	50	0	116	51.1-147	0			
cis-1,2-Dichloroethene	55.42	5.0	50	0	111	47.6-149	0			
Ethylbenzene	48.08	5.0	50	0	96.2	55.8-142	0			
m,p-Xylene	96.46	10	100	0	96.5	57.6-141	0			
Styrene	45.21	5.0	50	0	90.4	59.6-143	0			
Tetrachloroethene	41.42	5.0	50	0	82.8	56.2-160	0			
Toluene	54.28	5.0	50	0	109	56-143	0			
Trichloroethene	51.13	5.0	50	0	102	56.5-143	0			
Surr: 4-Bromofluorobenzene	50.28	0	*50*	0	*101*	*62.7-159*	0			
Surr: Dibromofluoromethane	53.74	0	*50*	0	*107*	*88.4-146*	0			
Surr: Toluene-d8	51.37	0	*50*	0	*103*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179332** Instrument ID **VMS2** Method: **SW8260B**

ms Sample ID: **2007704-01a** Units: **µg/Kg** Analysis Date: **7/22/2020 11:26 AM**
Client ID: **REC-1:SB-1 10-12** Run ID: **VMS2_200722A** SeqNo: **2272714** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.88	5.0	50	0	106	66.9-140	0			
1,1-Dichloroethene	50.89	5.0	50	0	102	41.4-161	0			
1,2-Dichloroethane	56.05	5.0	50	0	112	58.9-137	0			
1,3-Dichlorobenzene	40.87	5.0	50	0	81.7	56.3-126	0			
1,4-Dichlorobenzene	40.21	5.0	50	0	80.4	58.3-122	0			
Benzene	51.06	5.0	50	0	102	35.8-162	0			
Carbon tetrachloride	54.24	5.0	50	0	108	53.2-137	0			
Chlorobenzene	44.81	5.0	50	0	89.6	65.6-137	0			
Chloroform	56.27	5.0	50	0	113	58-130	0			
cis-1,2-Dichloroethene	53.24	5.0	50	0	106	52.9-138	0			
Ethylbenzene	45.56	5.0	50	0	91.1	57.5-134	0			
m,p-Xylene	91.75	10	100	0	91.8	56.4-135	0			
Styrene	44.97	5.0	50	0	89.9	60.9-135	0			
Tetrachloroethene	39.64	5.0	50	0	79.3	52.1-160	0			
Toluene	52.11	5.0	50	0	104	67.7-135	0			
Trichloroethene	49.73	5.0	50	0	99.5	56.5-136	0			
Surr: 4-Bromofluorobenzene	48.55	0	*50*	0	*97.1*	*62.7-159*	0			
Surr: Dibromofluoromethane	53.91	0	*50*	0	*108*	*88.4-146*	0			
Surr: Toluene-d8	51.46	0	*50*	0	*103*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179332** Instrument ID **VMS2** Method: **SW8260B**

msd Sample ID: **2007704-01a** Units: **µg/Kg** Analysis Date: **7/22/2020 11:52 AM**
Client ID: **REC-1:SB-1 10-12** Run ID: **VMS2_200722A** SeqNo: **2272716** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.87	5.0	50	0	110	66.9-140	52.88	3.69	31.2	
1,1-Dichloroethene	50.96	5.0	50	0	102	41.4-161	50.89	0.137	38.1	
1,2-Dichloroethane	58.47	5.0	50	0	117	58.9-137	56.05	4.23	26.2	
1,3-Dichlorobenzene	42.75	5.0	50	0	85.5	56.3-126	40.87	4.5	21	
1,4-Dichlorobenzene	41.96	5.0	50	0	83.9	58.3-122	40.21	4.26	28.7	
Benzene	52.89	5.0	50	0	106	35.8-162	51.06	3.52	23.6	
Carbon tetrachloride	56.49	5.0	50	0	113	53.2-137	54.24	4.06	32.3	
Chlorobenzene	46.65	5.0	50	0	93.3	65.6-137	44.81	4.02	20	
Chloroform	58.86	5.0	50	0	118	58-130	56.27	4.5	28.2	
cis-1,2-Dichloroethene	55.49	5.0	50	0	111	52.9-138	53.24	4.14	23.7	
Ethylbenzene	47.75	5.0	50	0	95.5	57.5-134	45.56	4.69	24.9	
m,p-Xylene	95.57	10	100	0	95.6	56.4-135	91.75	4.08	25.1	
Styrene	46.55	5.0	50	0	93.1	60.9-135	44.97	3.45	22.8	
Tetrachloroethene	41.53	5.0	50	0	83.1	52.1-160	39.64	4.66	24.7	
Toluene	54.65	5.0	50	0	109	67.7-135	52.11	4.76	20	
Trichloroethene	51.85	5.0	50	0	104	56.5-136	49.73	4.17	20	
Surr: 4-Bromofluorobenzene	48.46	0	*50*	0	*96.9*	*62.7-159*	48.55	*0.186*		
Surr: Dibromofluoromethane	53.67	0	*50*	0	*107*	*88.4-146*	53.91	*0.446*		
Surr: Toluene-d8	50.78	0	*50*	0	*102*	*83-124*	51.46	*1.33*		

The following samples were analyzed in this batch:

2007704-01a	2007704-02a	2007704-03a
2007704-04a	2007704-05a	2007704-06a
2007704-07a		

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179346** Instrument ID **VMS2** Method: **SW8260B**

mblk Sample ID: **MBLK-R179346** Units: **µg/Kg** Analysis Date: **7/22/2020 06:55 AM**
Client ID: Run ID: **VMS2_200722B** SeqNo: **2273134** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

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

Batch ID: **R179346** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	45.13	0	*50*	0	*90.3*	*62.7-159*	0
Surr: Dibromofluoromethane	57.03	0	*50*	0	*114*	*88.4-146*	0
Surr: Toluene-d8	48.6	0	*50*	0	*97.2*	*83-124*	0

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179346** Instrument ID **VMS2** Method: **SW8260B**

lcs Sample ID: **lcs-R179346** Units: **µg/Kg** Analysis Date: **7/22/2020 07:15 AM**
Client ID: Run ID: **VMS2_200722B** SeqNo: **2273135** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.29	5.0	50	0	109	53.6-149	0			
1,1-Dichloroethene	51.76	5.0	50	0	104	38.8-176	0			
1,2-Dichloroethane	54.76	5.0	50	0	110	54.4-145	0			
1,3-Dichlorobenzene	51.44	5.0	50	0	103	54.2-137	0			
1,4-Dichlorobenzene	53.35	5.0	50	0	107	52.8-135	0			
Benzene	51.73	5.0	50	0	103	56-148	0			
Carbon tetrachloride	54.66	5.0	50	0	109	51.9-151	0			
Chlorobenzene	55.12	5.0	50	0	110	55.4-137	0			
Chloroform	51.31	5.0	50	0	103	51.1-147	0			
cis-1,2-Dichloroethene	45.35	5.0	50	0	90.7	47.6-149	0			
Ethylbenzene	56.05	5.0	50	0	112	55.8-142	0			
m,p-Xylene	110.9	10	100	0	111	57.6-141	0			
Styrene	55.08	5.0	50	0	110	59.6-143	0			
Tetrachloroethene	44.72	5.0	50	0	89.4	56.2-160	0			
Toluene	55.18	5.0	50	0	110	56-143	0			
Trichloroethene	53.47	5.0	50	0	107	56.5-143	0			
Surr: 4-Bromofluorobenzene	54.28	0	*50*	0	*109*	*62.7-159*	0			
Surr: Dibromofluoromethane	45.53	0	*50*	0	*91.1*	*88.4-146*	0			
Surr: Toluene-d8	52.4	0	*50*	0	*105*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179346** Instrument ID **VMS2** Method: **SW8260B**

ms Sample ID: **2007704-02a** Units: **µg/Kg** Analysis Date: **7/22/2020 09:57 AM**
Client ID: **REC-2:SB-2 6-8** Run ID: **VMS2_200722B** SeqNo: **2273136** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.53	5.0	50	0	103	66.9-140	0			
1,1-Dichloroethene	47.61	5.0	50	0	95.2	41.4-161	0			
1,2-Dichloroethane	52.81	5.0	50	0	106	58.9-137	0			
1,3-Dichlorobenzene	45.04	5.0	50	0	90.1	56.3-126	0			
1,4-Dichlorobenzene	44.48	5.0	50	0	89	58.3-122	0			
Benzene	24	5.0	50	0	48	35.8-162	0			
Carbon tetrachloride	52.86	5.0	50	0	106	53.2-137	0			
Chlorobenzene	47.18	5.0	50	0	94.4	65.6-137	0			
Chloroform	55.43	5.0	50	0	111	58-130	0			
cis-1,2-Dichloroethene	44.43	5.0	50	0	88.9	52.9-138	0			
Ethylbenzene	48.56	5.0	50	0	97.1	57.5-134	0			
m,p-Xylene	96.96	10	100	0	97	56.4-135	0			
Styrene	50.43	5.0	50	0	101	60.9-135	0			
Tetrachloroethene	32.93	5.0	50	0	65.9	52.1-160	0			
Toluene	54.01	5.0	50	0	108	67.7-135	0			
Trichloroethene	43.21	5.0	50	0	86.4	56.5-136	0			
Surr: 4-Bromofluorobenzene	53.13	0	*50*	0	*106*	*62.7-159*	0			
Surr: Dibromofluoromethane	56.81	0	*50*	0	*114*	*88.4-146*	0			
Surr: Toluene-d8	57.71	0	*50*	0	*115*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007704
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179346** Instrument ID **VMS2** Method: **SW8260B**

msd Sample ID: **2007704-02a** Units: **µg/Kg** Analysis Date: **7/22/2020 10:17 AM**
Client ID: **REC-2:SB-2 6-8** Run ID: **VMS2_200722B** SeqNo: **2273137** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.75	5.0	50	0	91.5	66.9-140	51.53	11.9	31.2	
1,1-Dichloroethene	53.23	5.0	50	0	106	41.4-161	47.61	11.1	38.1	
1,2-Dichloroethane	54.52	5.0	50	0	109	58.9-137	52.81	3.19	26.2	
1,3-Dichlorobenzene	53.32	5.0	50	0	107	56.3-126	45.04	16.8	21	
1,4-Dichlorobenzene	47.67	5.0	50	0	95.3	58.3-122	44.48	6.92	28.7	
Benzene	41.15	5.0	50	0	82.3	35.8-162	24	52.6	23.6	R
Carbon tetrachloride	50.87	5.0	50	0	102	53.2-137	52.86	3.84	32.3	
Chlorobenzene	48.99	5.0	50	0	98	65.6-137	47.18	3.76	20	
Chloroform	61.35	5.0	50	0	123	58-130	55.43	10.1	28.2	
cis-1,2-Dichloroethene	47.36	5.0	50	0	94.7	52.9-138	44.43	6.38	23.7	
Ethylbenzene	51.74	5.0	50	0	103	57.5-134	48.56	6.34	24.9	
m,p-Xylene	94.28	10	100	0	94.3	56.4-135	96.96	2.8	25.1	
Styrene	60.11	5.0	50	0	120	60.9-135	50.43	17.5	22.8	
Tetrachloroethene	38.3	5.0	50	0	76.6	52.1-160	32.93	15.1	24.7	
Toluene	45.89	5.0	50	0	91.8	67.7-135	54.01	16.3	20	
Trichloroethene	48.9	5.0	50	0	97.8	56.5-136	43.21	12.4	20	
Surr: 4-Bromofluorobenzene	51.54	0	*50*	0	*103*	*62.7-159*	53.13	*3.04*		
Surr: Dibromofluoromethane	50.82	0	*50*	0	*102*	*88.4-146*	56.81	*11.1*		
Surr: Toluene-d8	45.77	0	*50*	0	*91.5*	*83-124*	57.71	*23.1*		

The following samples were analyzed in this batch: 2007704-02a

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

ALS Environmental

Date: 23-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715
WorkOrder: **2007704**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **ATC-CINCINNATI** Date/Time Received: **21-Jul-20 17:00**

Work Order: **2007704** Received by: **JNW**

Checklist completed by Jan Wilcox 21-Jul-20 Reviewed by: Rob Nieman 23-Jul-20
eSignature Date eSignature Date

Matrices: soil
Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	6.3	119059	
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: Delivered direct from field.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Field Chain-of-Custody Record

Page 1 of 1

60826

REV 10/2017

Ship To: **ALS Environmental**
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

2007704

REGULAR Status ☐ RUSH Status ☒ RESULTS REQUIRED BY: (Date) 24 hr. turn
CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: ☐ YES ☒ NO BUSTR: ☐ YES ☐ NO NELAC: ☐ YES ☐ NO

Date: 7/21/20
Company Name: ATC Group Services
Address: 1121 Canal Rd
City: Shorewood State: OH Zip: 45211
Person to Contact: Mike Lucken
Email Address: Michael.Lucken@atcgs.com
Telephone ( ): 383-4045
Alternate Contact:

Purchase Order No.:
Project No.: 241 EN00715
Sampling Site: Former IRS Bldg
Covington, KY
Billing Address (if different):

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUESTED: VOC	PAH	Cal Metals	TPH	PCB					
1	REL-1:SB-1 10-12	7/21/20	16:15	9	S	2	X	X	X	X						
2	REL-2:SB-2 6-8		15:01	9	S	2	X	X	X	X						
3	REL-3:SB-3 8-10		13:01	9	S	1	X	X	X	X	X					
4	REL-3:SB-3 4-6		13:06	9	S	1	X									
5	REL-3:SB-3 10-12		13:11	9	S	1	X									
6	REL-4:SB-4 2-4		13:58	9	S	2	X	X	X	X						
7	REL-5 SB-5 8-10		9:57	9	S	2	X	X	X	X						

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date 7/21/20	Received By: (Signature)	Time / Date 7/21/2020 1700
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 6.3 °C TAKEN WITH IR#: 119063 ~~119059~~

COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK

DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS
STD MAIL PRTY MAIL ALS COURIER OTHER:

CUSTODY SEALS: NOT REQUIRED COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

29-Jul-2020

Mike Luessen
ATC Group Services LLC
11121 Canal Road
Cincinnati, OH 45241-1861

Tel: 513-771-2112
Fax: 513-782-6908

Re: Former IRS Building Covington KY; PN.: 241EN00715 Work Order: **2007854**

Dear Mike,

ALS Environmental received 12 samples on 24-Jul-2020 09:46 AM for the analyses presented in the following report.

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

QC sample results for this data met 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 Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 49.

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

Sincerely,

Rob Nieman

Electronically approved by: Danielle Strasinger

Rob Nieman
Project Manager

ALS Environmental

Date: 29-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715
Work Order: **2007854**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2007854-01	MW-1	Water		7/23/2020 14:20	7/24/2020 09:46	☐
2007854-02	MW-2	Water		7/23/2020 14:00	7/24/2020 09:46	☐
2007854-03	MW-3	Water		7/23/2020 13:30	7/24/2020 09:46	☐
2007854-04	MW-4	Water		7/23/2020 13:50	7/24/2020 09:46	☐
2007854-05	MW-5	Water		7/23/2020 16:10	7/24/2020 09:46	☐
2007854-06	MW-6	Water		7/23/2020 16:30	7/24/2020 09:46	☐
2007854-07	MW-7	Water		7/23/2020 13:59	7/24/2020 09:46	☐
2007854-08	MW-8	Water		7/23/2020 13:53	7/24/2020 09:46	☐
2007854-09	MW-9	Water		7/23/2020 15:50	7/24/2020 09:46	☐
2007854-10	MW-11	Water		7/23/2020 15:00	7/24/2020 09:46	☐
2007854-11	MW-12	Water		7/23/2020 16:50	7/24/2020 09:46	☐
2007854-12	Trip Blank	Water		7/23/2020 08:00	7/24/2020 09:46	☐

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715
Work Order: 2007854

Case Narrative

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

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met 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.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-1 **Lab ID:** 2007854-01

Collection Date: 7/23/2020 02:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 02:49 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 02:49 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 02:49 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 02:49 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Phenanthrene	**0.32**		**0.20**	**µg/L**	1	7/28/2020 02:49 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 02:49 PM
Surr: 2-Fluorobiphenyl	*71.2*		*21.6-144*	*%REC*	1	7/28/2020 02:49 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:31 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-1 **Lab ID:** 2007854-01

Collection Date: 7/23/2020 02:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 01:31 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 01:31 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Acetone	ND		50	µg/L	1	7/27/2020 01:31 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 01:31 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-1 **Lab ID:** 2007854-01
Collection Date: 7/23/2020 02:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 01:31 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 01:31 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 01:31 AM
Surr: 4-Bromofluorobenzene	*112*		*61-131*	*%REC*	1	7/27/2020 01:31 AM
Surr: Dibromofluoromethane	*96.0*		*87-126*	*%REC*	1	7/27/2020 01:31 AM
Surr: Toluene-d8	*95.4*		*89.7-116*	*%REC*	1	7/27/2020 01:31 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-2 **Lab ID:** 2007854-02

Collection Date: 7/23/2020 02:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 03:06 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 03:06 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 03:06 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 03:06 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Phenanthrene	**0.54**		**0.20**	**µg/L**	1	7/28/2020 03:06 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 03:06 PM
Surr: 2-Fluorobiphenyl	*67.3*		*21.6-144*	*%REC*	1	7/28/2020 03:06 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:53 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-2 **Lab ID:** 2007854-02

Collection Date: 7/23/2020 02:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 01:53 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 01:53 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Acetone	ND		50	µg/L	1	7/27/2020 01:53 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 01:53 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-2 **Lab ID:** 2007854-02
Collection Date: 7/23/2020 02:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 01:53 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 01:53 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 01:53 AM
Surr: 4-Bromofluorobenzene	*111*		*61-131*	*%REC*	1	7/27/2020 01:53 AM
Surr: Dibromofluoromethane	*99.0*		*87-126*	*%REC*	1	7/27/2020 01:53 AM
Surr: Toluene-d8	*91.7*		*89.7-116*	*%REC*	1	7/27/2020 01:53 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-3 **Lab ID:** 2007854-03

Collection Date: 7/23/2020 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 02:15 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 02:15 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Acetone	ND		50	µg/L	1	7/27/2020 02:15 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-3 **Lab ID:** 2007854-03
Collection Date: 7/23/2020 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 02:15 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Styrene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 02:15 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 02:15 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 02:15 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 02:15 AM
Surr: Dibromofluoromethane	*98.0*		*87-126*	*%REC*	1	7/27/2020 02:15 AM
Surr: Toluene-d8	*97.5*		*89.7-116*	*%REC*	1	7/27/2020 02:15 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-4 **Lab ID:** 2007854-04

Collection Date: 7/23/2020 01:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 03:23 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 03:23 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 03:23 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Fluoranthene	**0.23**		**0.20**	**µg/L**	1	7/28/2020 03:23 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 03:23 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Phenanthrene	**0.50**		**0.20**	**µg/L**	1	7/28/2020 03:23 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 03:23 PM
Surr: 2-Fluorobiphenyl	*86.8*		*21.6-144*	*%REC*	1	7/28/2020 03:23 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:38 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-4 **Lab ID:** 2007854-04

Collection Date: 7/23/2020 01:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 02:38 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 02:38 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Acetone	ND		50	µg/L	1	7/27/2020 02:38 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 02:38 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-4 **Lab ID:** 2007854-04
Collection Date: 7/23/2020 01:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 02:38 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 02:38 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 02:38 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 02:38 AM
Surr: Dibromofluoromethane	*100*		*87-126*	*%REC*	1	7/27/2020 02:38 AM
Surr: Toluene-d8	*93.2*		*89.7-116*	*%REC*	1	7/27/2020 02:38 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-5 **Lab ID:** 2007854-05

Collection Date: 7/23/2020 04:10 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			**SW7470A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	**0.34**		**0.20**	**µg/L**	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**0.053**		**0.010**	**mg/L**	1	7/27/2020 12:16 PM
Barium	**0.65**		**0.10**	**mg/L**	1	7/27/2020 12:16 PM
Cadmium	**0.014**		**0.0050**	**mg/L**	1	7/27/2020 12:16 PM
Chromium	**0.17**		**0.020**	**mg/L**	1	7/27/2020 12:16 PM
Lead	**0.12**		**0.015**	**mg/L**	1	7/27/2020 12:16 PM
Selenium	ND		0.030	mg/L	1	7/27/2020 12:16 PM
Silver	ND		0.010	mg/L	1	7/27/2020 12:16 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Acenaphthene	**0.29**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 03:40 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 03:40 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Carbazole	**0.50**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 03:40 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Fluoranthene	**0.32**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Fluorene	**0.22**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 03:40 PM
Naphthalene	**0.28**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Phenanthrene	**0.86**		**0.20**	**µg/L**	1	7/28/2020 03:40 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 03:40 PM
Surr: 2-Fluorobiphenyl	*68.2*		*21.6-144*	*%REC*	1	7/28/2020 03:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-5 **Lab ID:** 2007854-05

Collection Date: 7/23/2020 04:10 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 03:00 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 03:00 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Acetone	ND		50	µg/L	1	7/27/2020 03:00 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-5 **Lab ID:** 2007854-05
Collection Date: 7/23/2020 04:10 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 03:00 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Styrene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 03:00 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 03:00 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 03:00 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 03:00 AM
Surr: Dibromofluoromethane	*98.6*		*87-126*	*%REC*	1	7/27/2020 03:00 AM
Surr: Toluene-d8	*95.4*		*89.7-116*	*%REC*	1	7/27/2020 03:00 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-6 **Lab ID:** 2007854-06

Collection Date: 7/23/2020 04:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 05:09 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 05:09 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Carbazole	**0.36**		**0.20**	**µg/L**	1	7/28/2020 05:09 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 05:09 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 05:09 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Phenanthrene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 05:09 PM
Surr: 2-Fluorobiphenyl	*83.1*		*21.6-144*	*%REC*	1	7/28/2020 05:09 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:23 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-6 **Lab ID:** 2007854-06

Collection Date: 7/23/2020 04:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 03:23 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 03:23 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Acetone	ND		50	µg/L	1	7/27/2020 03:23 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 03:23 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-6 **Lab ID:** 2007854-06
Collection Date: 7/23/2020 04:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 03:23 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 03:23 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 03:23 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 03:23 AM
Surr: Dibromofluoromethane	*102*		*87-126*	*%REC*	1	7/27/2020 03:23 AM
Surr: Toluene-d8	*96.6*		*89.7-116*	*%REC*	1	7/27/2020 03:23 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-7 **Lab ID:** 2007854-07

Collection Date: 7/23/2020 01:59 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 05:26 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 05:26 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 05:26 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 05:26 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Phenanthrene	**0.30**		**0.20**	**µg/L**	1	7/28/2020 05:26 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 05:26 PM
Surr: 2-Fluorobiphenyl	*85.1*		*21.6-144*	*%REC*	1	7/28/2020 05:26 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:45 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-7 **Lab ID:** 2007854-07

Collection Date: 7/23/2020 01:59 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 03:45 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 03:45 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Acetone	ND		50	µg/L	1	7/27/2020 03:45 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 03:45 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-7 **Lab ID:** 2007854-07
Collection Date: 7/23/2020 01:59 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 03:45 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 03:45 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 03:45 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 03:45 AM
Surr: Dibromofluoromethane	*98.4*		*87-126*	*%REC*	1	7/27/2020 03:45 AM
Surr: Toluene-d8	*98.1*		*89.7-116*	*%REC*	1	7/27/2020 03:45 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-8 **Lab ID:** 2007854-08

Collection Date: 7/23/2020 01:53 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	**0.27**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
2-Methylnaphthalene	**0.34**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Acenaphthene	**0.57**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 05:43 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 05:43 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Carbazole	**1.1**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 05:43 PM
Dibenzofuran	**0.50**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Fluoranthene	**0.26**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Fluorene	**0.40**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 05:43 PM
Naphthalene	**0.94**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Phenanthrene	**1.6**		**0.20**	**µg/L**	1	7/28/2020 05:43 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 05:43 PM
Surr: 2-Fluorobiphenyl	*76.6*		*21.6-144*	*%REC*	1	7/28/2020 05:43 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:08 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-8 **Lab ID:** 2007854-08

Collection Date: 7/23/2020 01:53 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 04:08 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 04:08 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Acetone	ND		50	µg/L	1	7/27/2020 04:08 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 04:08 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-8 **Lab ID:** 2007854-08

Collection Date: 7/23/2020 01:53 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 04:08 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 04:08 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 04:08 AM
Surr: 4-Bromofluorobenzene	*107*		*61-131*	*%REC*	1	7/27/2020 04:08 AM
Surr: Dibromofluoromethane	*100*		*87-126*	*%REC*	1	7/27/2020 04:08 AM
Surr: Toluene-d8	*93.3*		*89.7-116*	*%REC*	1	7/27/2020 04:08 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-9 **Lab ID:** 2007854-09

Collection Date: 7/23/2020 03:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			**SW7470A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	ND		0.20	µg/L	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**0.029**		**0.010**	**mg/L**	1	7/27/2020 12:20 PM
Barium	**0.24**		**0.10**	**mg/L**	1	7/27/2020 12:20 PM
Cadmium	**0.0051**		**0.0050**	**mg/L**	1	7/27/2020 12:20 PM
Chromium	**0.079**		**0.020**	**mg/L**	1	7/27/2020 12:20 PM
Lead	**0.056**		**0.015**	**mg/L**	1	7/27/2020 12:20 PM
Selenium	ND		0.030	mg/L	1	7/27/2020 12:20 PM
Silver	ND		0.010	mg/L	1	7/27/2020 12:20 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 06:01 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 06:01 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Dibenzo(a,h)anthracene	**0.15**		**0.050**	**µg/L**	1	7/28/2020 06:01 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 06:01 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Phenanthrene	**0.24**		**0.20**	**µg/L**	1	7/28/2020 06:01 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 06:01 PM
Surr: 2-Fluorobiphenyl	*76.6*		*21.6-144*	*%REC*	1	7/28/2020 06:01 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-9 **Lab ID:** 2007854-09

Collection Date: 7/23/2020 03:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 04:30 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 04:30 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Acetone	ND		50	µg/L	1	7/27/2020 04:30 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-9 **Lab ID:** 2007854-09
Collection Date: 7/23/2020 03:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 04:30 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Styrene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 04:30 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 04:30 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 04:30 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 04:30 AM
Surr: Dibromofluoromethane	*101*		*87-126*	*%REC*	1	7/27/2020 04:30 AM
Surr: Toluene-d8	*93.9*		*89.7-116*	*%REC*	1	7/27/2020 04:30 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-11 **Lab ID:** 2007854-10

Collection Date: 7/23/2020 03:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 06:18 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 06:18 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 06:18 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 06:18 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Phenanthrene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 06:18 PM
Surr: 2-Fluorobiphenyl	*78.6*		*21.6-144*	*%REC*	1	7/28/2020 06:18 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:53 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-11 **Lab ID:** 2007854-10

Collection Date: 7/23/2020 03:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 04:53 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 04:53 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Acetone	ND		50	µg/L	1	7/27/2020 04:53 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 04:53 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM

Note:

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854
Sample ID: MW-11 **Lab ID:** 2007854-10
Collection Date: 7/23/2020 03:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 04:53 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 04:53 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 04:53 AM
Surr: 4-Bromofluorobenzene	*109*		*61-131*	*%REC*	1	7/27/2020 04:53 AM
Surr: Dibromofluoromethane	*97.9*		*87-126*	*%REC*	1	7/27/2020 04:53 AM
Surr: Toluene-d8	*98.2*		*89.7-116*	*%REC*	1	7/27/2020 04:53 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-12 **Lab ID:** 2007854-11

Collection Date: 7/23/2020 04:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			**SW7470A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	**0.28**		**0.20**	**µg/L**	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**0.055**		**0.010**	**mg/L**	1	7/27/2020 12:25 PM
Barium	**0.46**		**0.10**	**mg/L**	1	7/27/2020 12:25 PM
Cadmium	**0.0050**		**0.0050**	**mg/L**	1	7/27/2020 12:25 PM
Chromium	**0.15**		**0.020**	**mg/L**	1	7/27/2020 12:25 PM
Lead	**0.16**		**0.015**	**mg/L**	1	7/27/2020 12:25 PM
Selenium	ND		0.030	mg/L	1	7/27/2020 12:25 PM
Silver	ND		0.010	mg/L	1	7/27/2020 12:25 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/27/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Acenaphthene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Acenaphthylene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Anthracene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	7/28/2020 06:35 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	7/28/2020 06:35 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Carbazole	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Chrysene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Dibenzo(a,h)anthracene	ND		0.050	µg/L	1	7/28/2020 06:35 PM
Dibenzofuran	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Fluoranthene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Fluorene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	7/28/2020 06:35 PM
Naphthalene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Phenanthrene	**0.29**		**0.20**	**µg/L**	1	7/28/2020 06:35 PM
Pyrene	ND		0.20	µg/L	1	7/28/2020 06:35 PM
Surr: 2-Fluorobiphenyl	*77.5*		*21.6-144*	*%REC*	1	7/28/2020 06:35 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-12 **Lab ID:** 2007854-11

Collection Date: 7/23/2020 04:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 05:15 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 05:15 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Acetone	ND		50	µg/L	1	7/27/2020 05:15 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: MW-12 **Lab ID:** 2007854-11

Collection Date: 7/23/2020 04:50 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 05:15 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Styrene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Tetrachloroethene	**190**		**5.0**	**µg/L**	1	7/27/2020 05:15 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Trichloroethene	**11**		**5.0**	**µg/L**	1	7/27/2020 05:15 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 05:15 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 05:15 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 05:15 AM
Surr: 4-Bromofluorobenzene	*110*		*61-131*	*%REC*	1	7/27/2020 05:15 AM
Surr: Dibromofluoromethane	*102*		*87-126*	*%REC*	1	7/27/2020 05:15 AM
Surr: Toluene-d8	*98.6*		*89.7-116*	*%REC*	1	7/27/2020 05:15 AM

Note:

ALS Environmental

Date: *29-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: Trip Blank **Lab ID:** 2007854-12

Collection Date: 7/23/2020 08:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,1-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2-Dibromoethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2-Dichloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,3-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
2,2-Dichloropropane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
2-Butanone	ND		50	µg/L	1	7/27/2020 05:38 AM
2-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
2-Hexanone	ND		5.0	µg/L	1	7/27/2020 05:38 AM
4-Chlorotoluene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Acetone	ND		50	µg/L	1	7/27/2020 05:38 AM
Benzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Bromobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Bromochloromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Bromodichloromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Bromoform	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Bromomethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Carbon disulfide	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Carbon tetrachloride	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Chlorobenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Chloroethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Chloroform	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Chloromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM

Note:

Client: ATC Group Services LLC

Project: Former IRS Building Covington KY; PN.: 241EN00715 **Work Order:** 2007854

Sample ID: Trip Blank **Lab ID:** 2007854-12

Collection Date: 7/23/2020 08:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Dibromochloromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Dibromomethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Dichlorodifluoromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Ethylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Hexachlorobutadiene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Isopropylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
m,p-Xylene	ND		10	µg/L	1	7/27/2020 05:38 AM
Methyl tert-butyl ether	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Methylene chloride	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Naphthalene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
n-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
n-Propylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
o-Xylene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
p-Isopropyltoluene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
sec-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Styrene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
tert-Butylbenzene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Tetrachloroethene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Toluene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Trichloroethene	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Trichlorofluoromethane	ND		5.0	µg/L	1	7/27/2020 05:38 AM
Vinyl chloride	ND		2.0	µg/L	1	7/27/2020 05:38 AM
Xylenes, Total	ND		15	µg/L	1	7/27/2020 05:38 AM
Surr: 4-Bromofluorobenzene	*111*		*61-131*	*%REC*	1	7/27/2020 05:38 AM
Surr: Dibromofluoromethane	*101*		*87-126*	*%REC*	1	7/27/2020 05:38 AM
Surr: Toluene-d8	*89.8*		*89.7-116*	*%REC*	1	7/27/2020 05:38 AM

Note:

ALS Environmental

Date: 29-Jul-20

Client: ATC Group Services LLC

Work Order: 2007854

Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **67878** Instrument ID **HG1** Method: **SW7470A**

MBLK Sample ID: **MBLK-67878-67878** Units: **µg/L** Analysis Date: **7/27/2020**

Client ID: Run ID: **HG1_200727A** SeqNo: **2274873** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.20								

LCS Sample ID: **LCS-67878-67878** Units: **µg/L** Analysis Date: **7/27/2020**

Client ID: Run ID: **HG1_200727A** SeqNo: **2274874** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.9	0.20	5	0	98	80-120	0			

LCSD Sample ID: **LCSD-67878-67878** Units: **µg/L** Analysis Date: **7/27/2020**

Client ID: Run ID: **HG1_200727A** SeqNo: **2274880** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.95	0.20	5	0	99	80-120	4.9	1.02	20	

MS Sample ID: **2007854-05C MS** Units: **µg/L** Analysis Date: **7/27/2020**

Client ID: **MW-5** Run ID: **HG1_200727A** SeqNo: **2274876** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	5.26	0.20	5	0.34	98.4	75-125	0			

MSD Sample ID: **2007854-05C MSD** Units: **µg/L** Analysis Date: **7/27/2020**

Client ID: **MW-5** Run ID: **HG1_200727A** SeqNo: **2274877** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.9	0.20	5	0.34	91.2	75-125	5.26	7.09	20	

The following samples were analyzed in this batch: 2007854-05C 2007854-09C 2007854-11C

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **67877** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **MBLK-67877-67877** Units: **mg/L** Analysis Date: **7/27/2020 05:09 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275442** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.010								
Barium	ND	0.10								
Cadmium	ND	0.0050								
Chromium	ND	0.010								
Lead	ND	0.015								
Selenium	ND	0.030								
Silver	ND	0.020								

LCS Sample ID: **LCS-67877-67877** Units: **mg/L** Analysis Date: **7/27/2020 12:08 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275260** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.089	0.010	1.1	0	99	81.7-107	0			
Barium	1.061	0.10	1.1	0	96.5	81.2-107	0			
Cadmium	1.095	0.0050	1.1	0	99.6	80-120	0			
Chromium	1.096	0.010	1.1	0	99.6	80-120	0			
Lead	1.1	0.015	1.1	0	100	84.6-109	0			
Selenium	1.1	0.030	1.1	0	100	80-120	0			
Silver	1.032	0.020	1.1	0	93.8	80-120	0			

LCSD Sample ID: **LCSD-67877-67877** Units: **mg/L** Analysis Date: **7/27/2020 12:12 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275261** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.09	0.010	1.1	0	99.1	81.7-107	1.089	0.131	20	
Barium	1.061	0.10	1.1	0	96.4	81.2-107	1.061	0.0622	20	
Cadmium	1.095	0.0050	1.1	0	99.6	80-120	1.095	0.0201	20	
Chromium	1.102	0.010	1.1	0	100	80-120	1.096	0.601	20	
Lead	1.101	0.015	1.1	0	100	84.6-109	1.1	0.14	20	
Selenium	1.108	0.030	1.1	0	101	80-120	1.1	0.698	20	
Silver	1.042	0.020	1.1	0	94.7	80-120	1.032	0.944	20	

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **67877** Instrument ID **ICP3** Method: **SW6010B**

MS Sample ID: **2007854-11C MS** Units: **mg/L** Analysis Date: **7/27/2020 12:30 PM**
Client ID: **MW-12** Run ID: **ICP3_200727A** SeqNo: **2275265** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.096	0.010	1.1	0.05523	94.6	75-125	0			
Barium	1.43	0.10	1.1	0.4585	88.3	75-125	0			
Cadmium	1.044	0.0050	1.1	0.005012	94.4	75-125	0			
Chromium	1.132	0.010	1.1	0.1464	89.6	75-125	0			
Lead	1.091	0.015	1.1	0.159	84.8	59.3-111	0			
Selenium	0.9713	0.030	1.1	-0.03055	91.1	75-125	0			
Silver	1.014	0.020	1.1	-0.0005379	92.2	75-125	0			

MSD Sample ID: **2007854-11C MSD** Units: **mg/L** Analysis Date: **7/27/2020 12:34 PM**
Client ID: **MW-12** Run ID: **ICP3_200727A** SeqNo: **2275266** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.142	0.010	1.1	0.05523	98.8	75-125	1.096	4.08	20	
Barium	1.455	0.10	1.1	0.4585	90.6	75-125	1.43	1.75	20	
Cadmium	1.082	0.0050	1.1	0.005012	97.9	75-125	1.044	3.63	20	
Chromium	1.135	0.010	1.1	0.1464	89.9	75-125	1.132	0.291	20	
Lead	1.12	0.015	1.1	0.159	87.4	59.3-111	1.091	2.58	20	
Selenium	1.009	0.030	1.1	-0.03055	94.5	75-125	0.9713	3.79	20	
Silver	1.042	0.020	1.1	-0.0005379	94.8	75-125	1.014	2.74	20	

The following samples were analyzed in this batch: 2007854-05C 2007854-09C 2007854-11C

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

QC BATCH REPORT

Batch ID: **67901** Instrument ID **SVMS3** Method: **SW8270C**

mblk Sample ID: **MBLK-67901-67901** Units: **µg/L** Analysis Date: **7/28/2020 01:41 PM**
Client ID: Run ID: **SVMS3_200728A** SeqNo: **2276564** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Anthracene	ND	0.20								
Benzo(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.15								
Benzo(b)fluoranthene	ND	0.15								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Carbazole	ND	0.20								
Chrysene	ND	0.20								
Dibenzo(a,h)anthracene	ND	0.050								
Dibenzofuran	ND	0.20								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.15								
Naphthalene	ND	0.20								
Phenanthrene	ND	0.20								
Pyrene	ND	0.20								
Surr: 2-Fluorobiphenyl	4.147	0	*5*	0	*82.9*	*21.6-144*	0			

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **67901** Instrument ID **SVMS3** Method: **SW8270C**

lcs Sample ID: **LCS-67901-67901** Units: **µg/L** Analysis Date: **7/28/2020 01:58 PM**
Client ID: Run ID: **SVMS3_200728A** SeqNo: **2276565** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	4.062	0.20	5	0	81.2	42-103	0			
Acenaphthylene	4.616	0.20	5	0	92.3	39.6-123	0			
Anthracene	4.567	0.20	5	0	91.3	54-112	0			
Benzo(a)anthracene	4.482	0.20	5	0	89.6	49-128	0			
Benzo(a)pyrene	4.516	0.15	5	0	90.3	52.2-128	0			
Benzo(b)fluoranthene	4.649	0.15	5	0	93	41.4-95.1	0			
Benzo(g,h,i)perylene	4.865	0.20	5	0	97.3	41.5-127	0			
Benzo(k)fluoranthene	4.467	0.20	5	0	89.3	47-118	0			
Chrysene	4.562	0.20	5	0	91.2	51.1-125	0			
Dibenzo(a,h)anthracene	4.998	0.050	5	0	100	42.8-124	0			
Fluoranthene	4.665	0.20	5	0	93.3	52.9-111	0			
Fluorene	3.923	0.20	5	0	78.5	45.2-104	0			
Indeno(1,2,3-cd)pyrene	5.039	0.15	5	0	101	46.1-121	0			
Naphthalene	3.649	0.20	5	0	73	30.6-98.6	0			
Phenanthrene	4.511	0.20	5	0	90.2	50.7-111	0			
Pyrene	4.528	0.20	5	0	90.6	51-129	0			
Surr: 2-Fluorobiphenyl	3.612	0	*5*	0	*72.2*	*21.6-144*	0			

The following samples were analyzed in this batch:

2007854-01B	2007854-02B	2007854-04B
2007854-05B	2007854-06B	2007854-07B
2007854-08B	2007854-09B	2007854-10B
2007854-11B		

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

QC BATCH REPORT

Batch ID: **R179433** Instrument ID **VMS1** Method: **SW8260B**

MBLK Sample ID: **BLK-R179433** Units: **µg/L** Analysis Date: **7/27/2020 01:08 AM**
Client ID: Run ID: **VMS1_200726A** SeqNo: **2274710** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

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

Batch ID: **R179433** Instrument ID **VMS1** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	55.43	0	*50*	0	*111*	*61-131*	0
Surr: Dibromofluoromethane	48.32	0	*50*	0	*96.6*	*87-126*	0
Surr: Toluene-d8	48.84	0	*50*	0	*97.7*	*89.7-116*	0

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **R179433** Instrument ID **VMS1** Method: **SW8260B**

LCS Sample ID: **LCS-R179433** Units: **µg/L** Analysis Date: **7/27/2020 12:23 PM**
Client ID: Run ID: **VMS1_200726A** SeqNo: **2274732** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.68	5.0	50	0	95.4	48.4-140	0			
1,1-Dichloroethene	41.19	5.0	50	0	82.4	45.5-150	0			
1,2-Dichloroethane	50.06	5.0	50	0	100	46.5-141	0			
1,3-Dichlorobenzene	47.86	5.0	50	0	95.7	42.5-133	0			
1,4-Dichlorobenzene	46	5.0	50	0	92	38.9-136	0			
Benzene	47.54	5.0	50	0	95.1	50.7-134	0			
Carbon tetrachloride	48.21	5.0	50	0	96.4	45.5-143	0			
Chlorobenzene	48.42	5.0	50	0	96.8	45-133	0			
Chloroform	49.74	5.0	50	0	99.5	52.4-136	0			
cis-1,2-Dichloroethene	49.11	5.0	50	0	98.2	49.7-138	0			
Ethylbenzene	49.27	5.0	50	0	98.5	37.8-145	0			
m,p-Xylene	100.1	10	100	0	100	25.1-163	0			
Methyl tert-butyl ether	56.06	5.0	50	0	112	26.7-174	0			
Styrene	49.22	5.0	50	0	98.4	26.3-172	0			
Tetrachloroethene	43.74	5.0	50	0	87.5	37.3-139	0			
Toluene	48.47	5.0	50	0	96.9	44-135	0			
Trichloroethene	47.09	5.0	50	0	94.2	45.9-140	0			
Xylenes, Total	150.9	15	150	0	101	47.3-132	0			
Surr: 4-Bromofluorobenzene	50.79	0	*50*	0	*102*	*61-131*	0			
Surr: Dibromofluoromethane	51.86	0	*50*	0	*104*	*87-126*	0			
Surr: Toluene-d8	49.55	0	*50*	0	*99.1*	*89.7-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **R179433** Instrument ID **VMS1** Method: **SW8260B**

MS Sample ID: **2007854-02A MS** Units: **µg/L** Analysis Date: **7/27/2020 08:45 AM**
Client ID: **MW-2** Run ID: **VMS1_200726A** SeqNo: **2274730** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.02	5.0	50	0	102	40.4-134	0			
1,1-Dichloroethene	40.23	5.0	50	0	80.5	45.3-151	0			
1,2-Dichloroethane	56.16	5.0	50	0	112	37-139	0			
1,3-Dichlorobenzene	51.06	5.0	50	0	102	42.9-121	0			
1,4-Dichlorobenzene	50.44	5.0	50	0	101	53.4-129	0			
Benzene	51.84	5.0	50	0	104	37.4-144	0			
Carbon tetrachloride	49.19	5.0	50	0	98.4	33.8-150	0			
Chlorobenzene	53.82	5.0	50	0	108	52.4-132	0			
Chloroform	53.69	5.0	50	0	107	45.5-135	0			
cis-1,2-Dichloroethene	53.63	5.0	50	0	107	35.2-150	0			
Ethylbenzene	48.11	5.0	50	0	96.2	46.5-146	0			
m,p-Xylene	81.44	10	100	0	81.4	38.2-167	0			
Styrene	17.97	5.0	50	0	35.9	20.9-184	0			
Tetrachloroethene	45.42	5.0	50	0	90.8	55.2-134	0			
Toluene	49.67	5.0	50	0	99.3	32.7-140	0			
Trichloroethene	50.45	5.0	50	0	101	29.1-153	0			
Xylenes, Total	124.5	15	150	0	83	43.6-148	0			
Surr: 4-Bromofluorobenzene	49.34	0	*50*	0	*98.7*	*61-131*	0			
Surr: Dibromofluoromethane	50.23	0	*50*	0	*100*	*87-126*	0			
Surr: Toluene-d8	48.89	0	*50*	0	*97.8*	*89.7-116*	0			

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

Client: ATC Group Services LLC
Work Order: 2007854
Project: Former IRS Building Covington KY; PN.: 241EN0

QC BATCH REPORT

Batch ID: **R179433** Instrument ID **VMS1** Method: **SW8260B**

MSD Sample ID: **2007854-02A MSD** Units: **µg/L** Analysis Date: **7/27/2020 09:08 AM**
Client ID: **MW-2** Run ID: **VMS1_200726A** SeqNo: **2274731** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.87	5.0	50	0	104	40.4-134	51.02	1.65	20	
1,1-Dichloroethene	42.56	5.0	50	0	85.1	45.3-151	40.23	5.63	20	
1,2-Dichloroethane	58.89	5.0	50	0	118	37-139	56.16	4.75	20	
1,3-Dichlorobenzene	52.6	5.0	50	0	105	42.9-121	51.06	2.97	20	
1,4-Dichlorobenzene	51.85	5.0	50	0	104	53.4-129	50.44	2.76	20	
Benzene	54.18	5.0	50	0	108	37.4-144	51.84	4.41	20	
Carbon tetrachloride	50.25	5.0	50	0	100	33.8-150	49.19	2.13	20	
Chlorobenzene	55.01	5.0	50	0	110	52.4-132	53.82	2.19	20	
Chloroform	57.12	5.0	50	0	114	45.5-135	53.69	6.19	20	
cis-1,2-Dichloroethene	56.25	5.0	50	0	112	35.2-150	53.63	4.77	21	
Ethylbenzene	49.6	5.0	50	0	99.2	46.5-146	48.11	3.05	20	
m,p-Xylene	85.09	10	100	0	85.1	38.2-167	81.44	4.38	20	
Styrene	20.09	5.0	50	0	40.2	20.9-184	17.97	11.1	20	
Tetrachloroethene	46.3	5.0	50	0	92.6	55.2-134	45.42	1.92	20	
Toluene	52.05	5.0	50	0	104	32.7-140	49.67	4.68	20	
Trichloroethene	52.17	5.0	50	0	104	29.1-153	50.45	3.35	20	
Xylenes, Total	130.5	15	150	0	87	43.6-148	124.5	4.71	20	
Surr: 4-Bromofluorobenzene	49.4	0	*50*	0	*98.8*	*61-131*	49.34	*0.122*		
Surr: Dibromofluoromethane	52.19	0	*50*	0	*104*	*87-126*	50.23	*3.83*		
Surr: Toluene-d8	49.25	0	*50*	0	*98.5*	*89.7-116*	48.89	*0.734*		

The following samples were analyzed in this batch:

2007854-01A	2007854-02A	2007854-03A
2007854-04A	2007854-05A	2007854-06A
2007854-07A	2007854-08A	2007854-09A
2007854-10A	2007854-11A	2007854-12A

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

Client: ATC Group Services LLC
Project: Former IRS Building Covington KY; PN.: 241EN00715
WorkOrder: **2007854**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/L	
mg/L	

ALS Environmental

Sample Receipt Checklist

Client Name: **ATC-CINCINNATI** Date/Time Received: **24-Jul-20 09:46**

Work Order: **2007854** Received by: **JNW**

Checklist completed by Jan Wilcox (eSignature) 24-Jul-20 (Date) Reviewed by: Rob Nieman (eSignature) 24-Jul-20 (Date)

Matrices: water
Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2	119059	
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

28-Jul-2020

Mike Luessen
ATC Group Services LLC
11121 Canal Road
Cincinnati, OH 45241-1861

Tel: 513-771-2112
Fax: 513-782-6908

Re: Former IRS Bldg. Covington, KY; PN.: 241EN00715 Work Order: **2007857**

Dear Mike,

ALS Environmental received 3 samples on 24-Jul-2020 08:50 AM for the analyses presented in the following report.

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

QC sample results for this data met 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 Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 29.

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

Sincerely,

Rob Nieman

Electronically approved by: Danielle Strasinger

Rob Nieman
Project Manager

ALS Environmental

Date: 28-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715
Work Order: **2007857**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2007857-01	REC-16:Tank #1 3.5	Soil		7/23/2020 11:58	7/24/2020 08:50	☐
2007857-02	REC-1:Anomly 1.10	Soil		7/23/2020 13:15	7/24/2020 08:50	☐
2007857-03	REC-2:Tank #2 6.11	Soil		7/23/2020 15:55	7/24/2020 08:50	☐

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715
Work Order: 2007857

Case Narrative

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

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met 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.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-16:Tank #1 3.5 **Lab ID:** 2007857-01

Collection Date: 7/23/2020 11:58 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/24/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/27/2020 04:58 PM
TPH C20-C34	**45**		**18**	**mg/Kg-dry**	1	7/27/2020 04:58 PM
Surr: Nonane	*88.7*		*22.6-112*	*%REC*	1	7/27/2020 04:58 PM
Surr: Pentacosane	*41.5*		*9.2-109*	*%REC*	1	7/27/2020 04:58 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/24/2020 12:17 PM
Surr: Cyclooctane	*105*		*55-135*	*%REC*	1	7/24/2020 12:17 PM
PCBS			**SW8082**		Prep Date: **7/27/2020**	Analyst: **TSA**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1221	ND		0.24	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1232	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1242	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1248	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1254	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1260	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1262	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Aroclor 1268	ND		0.12	mg/Kg-dry	1	7/27/2020 07:18 PM
Surr: Decachlorobiphenyl	*76.0*		*14.9-146*	*%REC*	1	7/27/2020 07:18 PM
Surr: Tetrachloro-m-xylene	*82.0*		*20.7-158*	*%REC*	1	7/27/2020 07:18 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**17**			**% of sample**	1	7/27/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	ND		0.30	mg/Kg-dry	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**11**		**5.0**	**mg/Kg-dry**	1	7/27/2020 01:52 PM
Barium	**70**		**9.9**	**mg/Kg-dry**	1	7/27/2020 01:52 PM
Cadmium	ND		0.99	mg/Kg-dry	1	7/27/2020 01:52 PM
Chromium	**12**		**2.0**	**mg/Kg-dry**	1	7/27/2020 01:52 PM
Lead	**16**		**5.0**	**mg/Kg-dry**	1	7/27/2020 01:52 PM
Selenium	ND		3.0	mg/Kg-dry	1	7/27/2020 01:52 PM
Silver	ND		0.99	mg/Kg-dry	1	7/27/2020 01:52 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/24/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-16:Tank #1 3.5 **Lab ID:** 2007857-01

Collection Date: 7/23/2020 11:58 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/27/2020 06:41 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/27/2020 06:41 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Carbazole	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Chrysene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/27/2020 06:41 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Fluorene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/27/2020 06:41 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Pyrene	ND		240	µg/Kg-dry	1	7/27/2020 06:41 PM
Surr: 2-Fluorobiphenyl	*77.5*		*30-116*	*%REC*	1	7/27/2020 06:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
2-Butanone	ND		60	µg/Kg-dry	1	7/24/2020 10:49 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-16:Tank #1 3.5 **Lab ID:** 2007857-01

Collection Date: 7/23/2020 11:58 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
2-Hexanone	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Acetone	ND		60	µg/Kg-dry	1	7/24/2020 10:49 AM
Benzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Bromobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Bromoform	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Bromomethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Chloroethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Chloroform	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Chloromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Dibromomethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/24/2020 10:49 AM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Methylene chloride	ND		24	µg/Kg-dry	1	7/24/2020 10:49 AM
Naphthalene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
o-Xylene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Styrene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Toluene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-16:Tank #1 3.5 **Lab ID:** 2007857-01

Collection Date: 7/23/2020 11:58 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Trichloroethene	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	7/24/2020 10:49 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/24/2020 10:49 AM
Surr: 4-Bromofluorobenzene	*100*		*62.7-159*	*%REC*	1	7/24/2020 10:49 AM
Surr: Dibromofluoromethane	*114*		*88.4-146*	*%REC*	1	7/24/2020 10:49 AM
Surr: Toluene-d8	*99.2*		*83-124*	*%REC*	1	7/24/2020 10:49 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-1:Anomly 1.10 **Lab ID:** 2007857-02

Collection Date: 7/23/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/24/2020**	Analyst: **CAA**
TPH C10-C20	ND		18	mg/Kg-dry	1	7/27/2020 05:18 PM
TPH C20-C34	**42**		**18**	**mg/Kg-dry**	1	7/27/2020 05:18 PM
Surr: Nonane	*51.5*		*22.6-112*	*%REC*	1	7/27/2020 05:18 PM
Surr: Pentacosane	*43.5*		*9.2-109*	*%REC*	1	7/27/2020 05:18 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.4	mg/Kg-dry	1	7/24/2020 12:43 PM
Surr: Cyclooctane	*104*		*55-135*	*%REC*	1	7/24/2020 12:43 PM
PCBS			**SW8082**		Prep Date: **7/27/2020**	Analyst: **TSA**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1221	ND		0.24	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1232	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1242	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1248	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1254	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1260	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1262	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Aroclor 1268	ND		0.12	mg/Kg-dry	1	7/27/2020 07:37 PM
Surr: Decachlorobiphenyl	*82.0*		*14.9-146*	*%REC*	1	7/27/2020 07:37 PM
Surr: Tetrachloro-m-xylene	*86.0*		*20.7-158*	*%REC*	1	7/27/2020 07:37 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**18**			**% of sample**	1	7/27/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	ND		0.31	mg/Kg-dry	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**12**		**4.6**	**mg/Kg-dry**	1	7/27/2020 01:56 PM
Barium	**56**		**9.1**	**mg/Kg-dry**	1	7/27/2020 01:56 PM
Cadmium	ND		0.91	mg/Kg-dry	1	7/27/2020 01:56 PM
Chromium	**14**		**1.8**	**mg/Kg-dry**	1	7/27/2020 01:56 PM
Lead	**15**		**4.6**	**mg/Kg-dry**	1	7/27/2020 01:56 PM
Selenium	ND		2.7	mg/Kg-dry	1	7/27/2020 01:56 PM
Silver	ND		0.91	mg/Kg-dry	1	7/27/2020 01:56 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/24/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Acenaphthene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM

Note:

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857
Sample ID: REC-1:Anomly 1.10 **Lab ID:** 2007857-02
Collection Date: 7/23/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	7/27/2020 06:59 PM
Benzo(a)pyrene	ND		120	µg/Kg-dry	1	7/27/2020 06:59 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Carbazole	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Chrysene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Dibenzo(a,h)anthracene	ND		120	µg/Kg-dry	1	7/27/2020 06:59 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Fluoranthene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Fluorene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	7/27/2020 06:59 PM
Naphthalene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Phenanthrene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Pyrene	ND		240	µg/Kg-dry	1	7/27/2020 06:59 PM
Surr: 2-Fluorobiphenyl	*70.5*		*30-116*	*%REC*	1	7/27/2020 06:59 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
2-Butanone	ND		61	µg/Kg-dry	1	7/24/2020 11:09 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-1:Anomly 1.10 **Lab ID:** 2007857-02

Collection Date: 7/23/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
2-Hexanone	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Acetone	ND		61	µg/Kg-dry	1	7/24/2020 11:09 AM
Benzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Bromobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Bromoform	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Bromomethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Chloroethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Chloroform	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Chloromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Dibromomethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
m,p-Xylene	ND		12	µg/Kg-dry	1	7/24/2020 11:09 AM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Methylene chloride	ND		24	µg/Kg-dry	1	7/24/2020 11:09 AM
Naphthalene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
o-Xylene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Styrene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Toluene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-1:Anomly 1.10 **Lab ID:** 2007857-02

Collection Date: 7/23/2020 01:15 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Trichloroethene	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	7/24/2020 11:09 AM
Xylenes, Total	ND		18	µg/Kg-dry	1	7/24/2020 11:09 AM
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	7/24/2020 11:09 AM
Surr: Dibromofluoromethane	*115*		*88.4-146*	*%REC*	1	7/24/2020 11:09 AM
Surr: Toluene-d8	*99.4*		*83-124*	*%REC*	1	7/24/2020 11:09 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-2:Tank #2 6.11 **Lab ID:** 2007857-03

Collection Date: 7/23/2020 03:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **7/24/2020**	Analyst: **CAA**
TPH C10-C20	**41**		**17**	**mg/Kg-dry**	1	7/27/2020 05:37 PM
TPH C20-C34	**520**		**17**	**mg/Kg-dry**	1	7/27/2020 05:37 PM
Surr: Nonane	*38.2*		*22.6-112*	*%REC*	1	7/27/2020 05:37 PM
Surr: Pentacosane	*58.1*		*9.2-109*	*%REC*	1	7/27/2020 05:37 PM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	**2.3**		**2.2**	**mg/Kg-dry**	1	7/24/2020 01:09 PM
Surr: Cyclooctane	*93.5*		*55-135*	*%REC*	1	7/24/2020 01:09 PM
PCBS			**SW8082**		Prep Date: **7/27/2020**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1221	ND		0.22	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1262	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Aroclor 1268	ND		0.11	mg/Kg-dry	1	7/27/2020 07:55 PM
Surr: Decachlorobiphenyl	*74.0*		*14.9-146*	*%REC*	1	7/27/2020 07:55 PM
Surr: Tetrachloro-m-xylene	*78.0*		*20.7-158*	*%REC*	1	7/27/2020 07:55 PM
MOISTURE			**SM2540B**			Analyst: **AZ**
Moisture	**10**			**% of sample**	1	7/27/2020
MERCURY BY CVAA			**SW7471A**		Prep Date: **7/27/2020**	Analyst: **SLT**
Mercury	ND		0.33	mg/Kg-dry	1	7/27/2020
METALS BY ICP			**SW6010B**		Prep Date: **7/27/2020**	Analyst: **AZ**
Arsenic	**4.7**		**4.3**	**mg/Kg-dry**	1	7/27/2020 02:00 PM
Barium	**31**		**8.7**	**mg/Kg-dry**	1	7/27/2020 02:00 PM
Cadmium	ND		0.87	mg/Kg-dry	1	7/27/2020 02:00 PM
Chromium	**5.6**		**1.7**	**mg/Kg-dry**	1	7/27/2020 02:00 PM
Lead	**48**		**4.3**	**mg/Kg-dry**	1	7/27/2020 02:00 PM
Selenium	ND		2.6	mg/Kg-dry	1	7/27/2020 02:00 PM
Silver	ND		0.87	mg/Kg-dry	1	7/27/2020 02:00 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **7/24/2020**	Analyst: **RA**
1-Methylnaphthalene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
2-Methylnaphthalene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Acenaphthene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Acenaphthylene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-2:Tank #2 6.11 **Lab ID:** 2007857-03

Collection Date: 7/23/2020 03:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Anthracene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Benzo(a)anthracene	**660**		**110**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Benzo(a)pyrene	**840**		**110**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Benzo(b)fluoranthene	**820**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Benzo(g,h,i)perylene	**490**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Benzo(k)fluoranthene	**300**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Carbazole	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Chrysene	**560**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Dibenzo(a,h)anthracene	**150**		**110**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Dibenzofuran	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Fluoranthene	**810**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Fluorene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Indeno(1,2,3-cd)pyrene	**530**		**110**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Naphthalene	ND		220	µg/Kg-dry	1	7/27/2020 07:18 PM
Phenanthrene	**400**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Pyrene	**830**		**220**	**µg/Kg-dry**	1	7/27/2020 07:18 PM
Surr: 2-Fluorobiphenyl	*81.4*		*30-116*	*%REC*	1	7/27/2020 07:18 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1,1-Trichloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1,2,2-Tetrachloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1,2-Trichloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1-Dichloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1-Dichloroethene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,1-Dichloropropene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2,3-Trichlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2,3-Trichloropropane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2,4-Trichlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2,4-Trimethylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2-Dibromo-3-chloropropane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2-Dibromoethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2-Dichloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,2-Dichloropropane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,3,5-Trimethylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,3-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,3-Dichloropropane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
1,4-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
2,2-Dichloropropane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
2-Butanone	ND		56	µg/Kg-dry	1	7/24/2020 11:29 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-2:Tank #2 6.11 **Lab ID:** 2007857-03

Collection Date: 7/23/2020 03:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Chlorotoluene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
2-Hexanone	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
4-Chlorotoluene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
4-Methyl-2-pentanone	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Acetone	ND		56	µg/Kg-dry	1	7/24/2020 11:29 AM
Benzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Bromobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Bromochloromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Bromodichloromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Bromoform	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Bromomethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Carbon disulfide	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Carbon tetrachloride	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Chlorobenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Chloroethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Chloroform	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Chloromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
cis-1,2-Dichloroethene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
cis-1,3-Dichloropropene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Dibromochloromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Dibromomethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Dichlorodifluoromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Ethylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Hexachlorobutadiene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Isopropylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
m,p-Xylene	ND		11	µg/Kg-dry	1	7/24/2020 11:29 AM
Methyl tert-butyl ether	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Methylene chloride	ND		22	µg/Kg-dry	1	7/24/2020 11:29 AM
Naphthalene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
n-Butylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
n-Propylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
o-Xylene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
p-Isopropyltoluene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
sec-Butylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Styrene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
tert-Butylbenzene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Tetrachloroethene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Toluene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
trans-1,2-Dichloroethene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
trans-1,3-Dichloropropene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM

Note:

ALS Environmental

Date: *28-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715 **Work Order:** 2007857

Sample ID: REC-2:Tank #2 6.11 **Lab ID:** 2007857-03

Collection Date: 7/23/2020 03:55 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Trichloroethene	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Trichlorofluoromethane	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Vinyl chloride	ND		5.6	µg/Kg-dry	1	7/24/2020 11:29 AM
Xylenes, Total	ND		17	µg/Kg-dry	1	7/24/2020 11:29 AM
Surr: 4-Bromofluorobenzene	*100*		*62.7-159*	*%REC*	1	7/24/2020 11:29 AM
Surr: Dibromofluoromethane	*112*		*88.4-146*	*%REC*	1	7/24/2020 11:29 AM
Surr: Toluene-d8	*101*		*83-124*	*%REC*	1	7/24/2020 11:29 AM

Note:

QC BATCH REPORT

Batch ID: **67829** Instrument ID **GC5** Method: **SW8015B**

mblk Sample ID: **MBLK-67829-67829** Units: **mg/Kg** Analysis Date: **7/27/2020 02:10 PM**

Client ID: Run ID: **GC5_200727A** SeqNo: **2275413** Prep Date: **7/24/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C10-C20	ND	15								
TPH C20-C34	ND	15								
Surr: Nonane	6.88	0	*8.333*	0	*82.6*	*22.6-112*	0			
Surr: Pentacosane	4.077	0	*8.333*	0	*48.9*	*9.2-109*	0			

The following samples were analyzed in this batch: 2007857-01B 2007857-02B 2007857-03B

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67887** Instrument ID **GC3** Method: **SW8082**

mblk Sample ID: **MBLK-67887-67887** Units: **mg/Kg** Analysis Date: **7/27/2020 04:53 PM**
Client ID: Run ID: **GC3_200727A** SeqNo: **2275649** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Aroclor 1262	ND	0.10								
Aroclor 1268	ND	0.10								
Surr: Decachlorobiphenyl	0.08	0	*0.1*	0	*80*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.088	0	*0.1*	0	*88*	*20.7-158*	0			

LCS Sample ID: **LCS-67887-67887** Units: **mg/Kg** Analysis Date: **7/27/2020 05:11 PM**
Client ID: Run ID: **GC3_200727A** SeqNo: **2275650** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.726	0.10	2	0	86.3	58.2-144	0			
Surr: Decachlorobiphenyl	0.08	0	*0.1*	0	*80*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.086	0	*0.1*	0	*86*	*20.7-158*	0			

MS Sample ID: **2007874-01B** Units: **mg/Kg** Analysis Date: **7/27/2020 10:57 PM**
Client ID: Run ID: **GC3_200727A** SeqNo: **2275666** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.902	0.10	2.002	0	95	25.9-135	0			
Surr: Decachlorobiphenyl	0.08809	0	*0.1001*	0	*88*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.08809	0	*0.1001*	0	*88*	*20.7-158*	0			

MSD Sample ID: **2007874-01B** Units: **mg/Kg** Analysis Date: **7/27/2020 11:15 PM**
Client ID: Run ID: **GC3_200727A** SeqNo: **2275667** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.9	0.10	2.002	0	94.9	25.9-135	1.902	0.105	53	
Surr: Decachlorobiphenyl	0.08809	0	*0.1001*	0	*88*	*14.9-146*	0.08809	*0*		
Surr: Tetrachloro-m-xylene	0.08809	0	*0.1001*	0	*88*	*20.7-158*	0.08809	*0*		

The following samples were analyzed in this batch: 2007857-01B 2007857-02B 2007857-03B

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179423** Instrument ID **GC6** Method: **SW8015A**

MBLK Sample ID: **MBLK-R179423** Units: **mg/Kg** Analysis Date: **7/24/2020 10:09 AM**
Client ID: Run ID: **GC6_200724A** SeqNo: **2274584** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	ND	2.0								
Surr: Cyclooctane	528	0	*500*	0	*106*	*55-135*	0			

LCS Sample ID: **TPH LCS 20-R179423** Units: **mg/Kg** Analysis Date: **7/24/2020 11:01 AM**
Client ID: Run ID: **GC6_200724A** SeqNo: **2274571** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	21.59	2.0	20	0	108	57.2-164	0			
Surr: Cyclooctane	567.6	0	*500*	0	*114*	*55-135*	0			

MS Sample ID: **2007709-12A** Units: **mg/Kg** Analysis Date: **7/24/2020 11:26 AM**
Client ID: Run ID: **GC6_200724A** SeqNo: **2274572** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	10.49	2.0	20	0	52.4	42.3-144	0			
Surr: Cyclooctane	509.6	0	*500*	0	*102*	*55-135*	0			

MSD Sample ID: **2007709-12A** Units: **mg/Kg** Analysis Date: **7/24/2020 11:52 AM**
Client ID: Run ID: **GC6_200724A** SeqNo: **2274573** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	10.99	2.0	20	0	55	42.3-144	10.49	4.66	15.7	
Surr: Cyclooctane	513.2	0	*500*	0	*103*	*55-135*	509.6	*0.722*		

The following samples were analyzed in this batch: 2007857-01A 2007857-02A 2007857-03A

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67889** Instrument ID **HG1** Method: **SW7471A**

MBLK Sample ID: **MBLK-67889-67889** Units: **mg/Kg** Analysis Date: **7/27/2020**
Client ID: Run ID: **HG1_200727C** SeqNo: **2275116** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.30								

LCS Sample ID: **LCS-67889-67889** Units: **mg/Kg** Analysis Date: **7/27/2020**
Client ID: Run ID: **HG1_200727C** SeqNo: **2275117** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	1	0.30	1.111	0	90	70.1-161	0			

MS Sample ID: **2007850-03B MS** Units: **mg/Kg** Analysis Date: **7/27/2020**
Client ID: Run ID: **HG1_200727C** SeqNo: **2275121** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.8015	0.27	0.7631	0.02825	101	69-147	0			

MSD Sample ID: **2007850-03B MSD** Units: **mg/Kg** Analysis Date: **7/27/2020**
Client ID: Run ID: **HG1_200727C** SeqNo: **2275122** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.7847	0.29	0.8153	0.02825	92.8	69-147	0.8015	2.13	20	

The following samples were analyzed in this batch: 2007857-01B 2007857-02B 2007857-03B

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67888** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **MBLK-67888-67888** Units: **mg/Kg** Analysis Date: **7/27/2020 01:31 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275343** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Barium	ND	10								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Selenium	ND	3.0								
Silver	ND	1.0								

LCS Sample ID: **LCS-67888-67888** Units: **mg/Kg** Analysis Date: **7/27/2020 01:35 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275344** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	102.5	5.0	100	0	102	80-120	0			
Barium	99.58	10	100	0	99.6	81.6-120	0			
Cadmium	103.2	1.0	100	0	103	86-120	0			
Chromium	98.71	2.0	100	0	98.7	74.6-120	0			
Lead	103.6	5.0	100	0	104	82.9-120	0			
Selenium	104	3.0	100	0	104	86.2-120	0			
Silver	99.17	1.0	100	0	99.2	77.1-120	0			

LCSD Sample ID: **LCSD-67888-67888** Units: **mg/Kg** Analysis Date: **7/27/2020 01:47 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275345** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	117.2	5.0	100	0	117	80-120	102.5	13.4	20	
Barium	114.6	10	100	0	115	81.6-120	99.58	14	20	
Cadmium	117.8	1.0	100	0	118	86-120	103.2	13.2	20	
Chromium	118.3	2.0	100	0	118	74.6-120	98.71	18.1	20	
Lead	118.8	5.0	100	0	119	82.9-120	103.6	13.7	20	
Selenium	119.5	3.0	100	0	120	86.2-120	104	13.9	20	
Silver	118.6	1.0	100	0	119	77.1-120	99.17	17.8	20	

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **67888** Instrument ID **ICP3** Method: **SW6010B**

MS Sample ID: **2007863-01B MS** Units: **mg/Kg** Analysis Date: **7/27/2020 02:10 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275350** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	129.7	4.8	96.53	11.74	122	75-125	0			
Barium	286.7	9.7	96.53	309.3	-23.5	75-125	0			S
Cadmium	118.1	0.97	96.53	1.094	121	75-125	0			
Chromium	128.8	1.9	96.53	19.56	113	69.3-116	0			
Lead	929.6	4.8	96.53	888.1	43	69.3-107	0			SO
Selenium	111.5	2.9	96.53	-1.999	118	75-125	0			
Silver	118.1	0.97	96.53	0.05979	122	75-125	0			

MSD Sample ID: **2007863-01B MSD** Units: **mg/Kg** Analysis Date: **7/27/2020 02:14 PM**
Client ID: Run ID: **ICP3_200727A** SeqNo: **2275351** Prep Date: **7/27/2020** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	92.87	4.1	82.85	11.74	97.9	75-125	129.7	33.1	20	R
Barium	314.1	8.3	82.85	309.3	5.72	75-125	286.7	9.12	20	S
Cadmium	83.1	0.83	82.85	1.094	99	75-125	118.1	34.8	20	R
Chromium	98.43	1.7	82.85	19.56	95.2	69.3-116	128.8	26.7	20	R
Lead	936.2	4.1	82.85	888.1	58	69.3-107	929.6	0.704	20	SO
Selenium	78.29	2.5	82.85	-1.999	96.9	75-125	111.5	35	20	R
Silver	86.66	0.83	82.85	0.05979	105	75-125	118.1	30.7	20	R

The following samples were analyzed in this batch: 2007857-01B 2007857-02B 2007857-03B

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179406** Instrument ID **VMS2** Method: **SW8260B**

mblk Sample ID: **MBLK-R179406** Units: **µg/Kg** Analysis Date: **7/24/2020 06:08 AM**
Client ID: Run ID: **VMS2_200724A** SeqNo: **2274293** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

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

Batch ID: **R179406** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	48.92	0	*50*	0	*97.8*	*62.7-159*	0
Surr: Dibromofluoromethane	54.73	0	*50*	0	*109*	*88.4-146*	0
Surr: Toluene-d8	50.42	0	*50*	0	*101*	*83-124*	0

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179406** Instrument ID **VMS2** Method: **SW8260B**

lcs Sample ID: **lcs-R179406** Units: **µg/Kg** Analysis Date: **7/24/2020 08:48 AM**
Client ID: Run ID: **VMS2_200724A** SeqNo: **2274295** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	41.16	5.0	50	0	82.3	53.6-149	0			
1,1-Dichloroethene	37.7	5.0	50	0	75.4	38.8-176	0			
1,2-Dichloroethane	43.2	5.0	50	0	86.4	54.4-145	0			
1,3-Dichlorobenzene	40.82	5.0	50	0	81.6	54.2-137	0			
1,4-Dichlorobenzene	40.78	5.0	50	0	81.6	52.8-135	0			
Benzene	42.36	5.0	50	0	84.7	56-148	0			
Carbon tetrachloride	41.59	5.0	50	0	83.2	51.9-151	0			
Chlorobenzene	41.88	5.0	50	0	83.8	55.4-137	0			
Chloroform	44.41	5.0	50	0	88.8	51.1-147	0			
cis-1,2-Dichloroethene	43.2	5.0	50	0	86.4	47.6-149	0			
Ethylbenzene	43.22	5.0	50	0	86.4	55.8-142	0			
m,p-Xylene	87.41	10	100	0	87.4	57.6-141	0			
Styrene	42.55	5.0	50	0	85.1	59.6-143	0			
Tetrachloroethene	29.47	5.0	50	0	58.9	56.2-160	0			
Toluene	42.9	5.0	50	0	85.8	56-143	0			
Trichloroethene	40.79	5.0	50	0	81.6	56.5-143	0			
Surr: 4-Bromofluorobenzene	50.23	0	*50*	0	*100*	*62.7-159*	0			
Surr: Dibromofluoromethane	51.37	0	*50*	0	*103*	*88.4-146*	0			
Surr: Toluene-d8	50.54	0	*50*	0	*101*	*83-124*	0			

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

Client: ATC Group Services LLC
Work Order: 2007857
Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179406** Instrument ID **VMS2** Method: **SW8260B**

ms Sample ID: **2007709-01a** Units: **µg/Kg** Analysis Date: **7/24/2020 09:28 AM**
Client ID: Run ID: **VMS2_200724A** SeqNo: **2274297** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	39.41	5.0	50	0	78.8	66.9-140	0			
1,1-Dichloroethene	35.26	5.0	50	0	70.5	41.4-161	0			
1,2-Dichloroethane	40	5.0	50	0	80	58.9-137	0			
1,3-Dichlorobenzene	38.77	5.0	50	0	77.5	56.3-126	0			
1,4-Dichlorobenzene	38.46	5.0	50	0	76.9	58.3-122	0			
Benzene	39.61	5.0	50	0	79.2	35.8-162	0			
Carbon tetrachloride	40.32	5.0	50	0	80.6	53.2-137	0			
Chlorobenzene	39.83	5.0	50	0	79.7	65.6-137	0			
Chloroform	41.33	5.0	50	0	82.7	58-130	0			
cis-1,2-Dichloroethene	40.36	5.0	50	0	80.7	52.9-138	0			
Ethylbenzene	41.54	5.0	50	0	83.1	57.5-134	0			
m,p-Xylene	83.77	10	100	0	83.8	56.4-135	0			
Styrene	39.9	5.0	50	0	79.8	60.9-135	0			
Tetrachloroethene	28.29	5.0	50	0	56.6	52.1-160	0			
Toluene	40.51	5.0	50	0	81	67.7-135	0			
Trichloroethene	38.94	5.0	50	0	77.9	56.5-136	0			
Surr: 4-Bromofluorobenzene	49.79	0	*50*	0	*99.6*	*62.7-159*	0			
Surr: Dibromofluoromethane	51.05	0	*50*	0	*102*	*88.4-146*	0			
Surr: Toluene-d8	50.66	0	*50*	0	*101*	*83-124*	0			

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

Client: ATC Group Services LLC

Work Order: 2007857

Project: Former IRS Bldg. Covington, KY; PN.: 241EN0071

QC BATCH REPORT

Batch ID: **R179406** Instrument ID **VMS2** Method: **SW8260B**

msd Sample ID: **2007709-01a** Units: **µg/Kg** Analysis Date: **7/24/2020 09:49 AM**

Client ID: Run ID: **VMS2_200724A** SeqNo: **2274299** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.45	5.0	50	0	86.9	66.9-140	39.41	9.75	31.2	
1,1-Dichloroethene	39.51	5.0	50	0	79	41.4-161	35.26	11.4	38.1	
1,2-Dichloroethane	45.01	5.0	50	0	90	58.9-137	40	11.8	26.2	
1,3-Dichlorobenzene	42.64	5.0	50	0	85.3	56.3-126	38.77	9.51	21	
1,4-Dichlorobenzene	42.63	5.0	50	0	85.3	58.3-122	38.46	10.3	28.7	
Benzene	43.76	5.0	50	0	87.5	35.8-162	39.61	9.96	23.6	
Carbon tetrachloride	44.4	5.0	50	0	88.8	53.2-137	40.32	9.63	32.3	
Chlorobenzene	43.89	5.0	50	0	87.8	65.6-137	39.83	9.7	20	
Chloroform	46.13	5.0	50	0	92.3	58-130	41.33	11	28.2	
cis-1,2-Dichloroethene	46.25	5.0	50	0	92.5	52.9-138	40.36	13.6	23.7	
Ethylbenzene	45.15	5.0	50	0	90.3	57.5-134	41.54	8.33	24.9	
m,p-Xylene	91.33	10	100	0	91.3	56.4-135	83.77	8.64	25.1	
Styrene	44.86	5.0	50	0	89.7	60.9-135	39.9	11.7	22.8	
Tetrachloroethene	30.92	5.0	50	0	61.8	52.1-160	28.29	8.88	24.7	
Toluene	44.6	5.0	50	0	89.2	67.7-135	40.51	9.61	20	
Trichloroethene	43.61	5.0	50	0	87.2	56.5-136	38.94	11.3	20	
Surr: 4-Bromofluorobenzene	49.88	0	*50*	0	*99.8*	*62.7-159*	49.79	*0.181*		
Surr: Dibromofluoromethane	51.76	0	*50*	0	*104*	*88.4-146*	51.05	*1.38*		
Surr: Toluene-d8	50.32	0	*50*	0	*101*	*83-124*	50.66	*0.673*		

The following samples were analyzed in this batch: 2007857-01a 2007857-02a 2007857-03a

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

Client: ATC Group Services LLC
Project: Former IRS Bldg. Covington, KY; PN.: 241EN00715
WorkOrder: **2007857**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **ATC-CINCINNATI** Date/Time Received: **24-Jul-20 08:50**

Work Order: **2007857** Received by: **RDN**

Checklist completed by Rob Nieman 24-Jul-20 Reviewed by: Rob Nieman 24-Jul-20
eSignature Date eSignature Date

Matrices: soil
Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.1		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Field Chain-of-Custody Record

Page 1 of 1

56320 REV 10/2017

ALS Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

2007857

REGULAR Status ☐ RUSH Status ☒ RESULTS REQUIRED BY: (Date) 24 hr turn

CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: ☐ YES ☒ NO BUSTR: ☐ YES ☒ NO NELAC: ☐ YES ☒ NO

Date: 7/24/20 Purchase Order No.:

Company Name: ATC Group Services Project No.: 241 EN00715

Address: 1121 Canal Rd. Sampling Site: Former IRS Bldg.

City: Sharonville State: OH Zip: 45241 Covington, KY

Person to Contact: Mike Luessen Billing Address (If different):

Email Address: Michael.luessen@atcgs.com

Telephone (513): 383-4645

Alternate Contact:

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUESTED: VOC	PAH	RCRA metals	TPH	PCB	BTEX				
01	REC-16: Tank #1 3'5"	7/23/20	11:58	9	S	2	X	X	X	X	X	X				
02	REC-1: Annex 1'10"	↓	13:15	↓	↓	↓	↓	↓	↓	↓	↓	↓				
03	REC-2: Tank #2 6'11"	↓	15:45	↓	↓	↓	↓	↓	↓	↓	↓	↓				

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Mike Stewart	7/24/20		7/24/20 9:50
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 4.1 °C TAKEN WITH IR#: 119063 (119059)

COOLING METHOD: NONE (COOLER) (WET ICE) DRY ICE ICE PACK

DELIVERY METHOD: (CLIENT) DROP BOX FEDEX UPS STD MAIL PRTY MAIL ALS COURIER OTHER:

CUSTODY SEALS: (NOT REQUIRED) COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

20-Jul-2020

Mike Luessen
ATC Group Services LLC
11121 Canal Road
Cincinnati, OH 45241-1861

Tel: 513-771-2112
Fax: 513-782-6908

Re: Former IRS Covington, KY; 241EN00715 Work Order: **2007534**

Dear Mike,

ALS Environmental received 11 samples on 17-Jul-2020 08:30 AM for the analyses presented in the following report.

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

QC sample results for this data met 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 Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 54.

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

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 20-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: **2007534**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
2007534-01	SV-1	Air		7/16/2020	7/17/2020 08:30	☐
2007534-02	SV-2	Air		7/16/2020	7/17/2020 08:30	☐
2007534-03	SV-3	Air		7/16/2020	7/17/2020 08:30	☐
2007534-04	SV-4	Air		7/16/2020	7/17/2020 08:30	☐
2007534-05	SV-5	Air		7/16/2020	7/17/2020 08:30	☐
2007534-06	SV-6	Air		7/16/2020	7/17/2020 08:30	☐
2007534-07	SV-7	Air		7/16/2020	7/17/2020 08:30	☐
2007534-08	SV-8	Air		7/16/2020	7/17/2020 08:30	☐
2007534-09	SV-9	Air		7/16/2020	7/17/2020 08:30	☐
2007534-10	AA-I	Air		7/16/2020	7/17/2020 08:30	☐
2007534-11	AA-O	Air		7/16/2020	7/17/2020 08:30	☐

ALS Environmental

Date: 20-Jul-20

Client:	ATC Group Services LLC
Project:	Former IRS Covington, KY; 241EN00715
Work Order:	2007534

Case Narrative

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

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met 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.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-1 **Lab ID:** 2007534-01
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,2,4-Trimethylbenzene	**1.1**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 02:48 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,3,5-Trimethylbenzene	**0.63**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 02:48 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 02:48 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 02:48 PM
2-Butanone	**3.5**		**1.0**	**ppbv**	1	7/17/2020 02:48 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 02:48 PM
2-Propanol	**5.4**		**1.0**	**ppbv**	1	7/17/2020 02:48 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 02:48 PM
Acetone	**58**	E	**1.0**	**ppbv**	1	7/17/2020 02:48 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 02:48 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 02:48 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 02:48 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-1 **Lab ID:** 2007534-01
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Ethylbenzene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 02:48 PM
m,p-Xylene	**0.54**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 02:48 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Naphthalene	**0.42**		**0.20**	**ppbv**	1	7/17/2020 02:48 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Propene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Tetrachloroethene	**3.3**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Toluene	**0.60**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 02:48 PM
Trichlorofluoromethane	**0.58**		**0.50**	**ppbv**	1	7/17/2020 02:48 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 02:48 PM
Surr: Bromofluorobenzene	*102*		*60-140*	*%REC*	1	7/17/2020 02:48 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 02:48 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 02:48 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 02:48 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 02:48 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 02:48 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 02:48 PM
1,2,4-Trimethylbenzene	**5.36**		**2.46**	**µg/m3**	1	7/17/2020 02:48 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 02:48 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 02:48 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 02:48 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 02:48 PM
1,3,5-Trimethylbenzene	**3.10**		**2.46**	**µg/m3**	1	7/17/2020 02:48 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 02:48 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 02:48 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 02:48 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-1
Lab ID: 2007534-01
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 02:48 PM
2-Butanone	**10.2**		**2.95**	**µg/m3**	1	7/17/2020 02:48 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 02:48 PM
2-Propanol	**13.3**		**2.46**	**µg/m3**	1	7/17/2020 02:48 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 02:48 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 02:48 PM
Acetone	**137**	E	**2.38**	**µg/m3**	1	7/17/2020 02:48 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 02:48 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 02:48 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 02:48 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 02:48 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 02:48 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 02:48 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 02:48 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 02:48 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 02:48 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 02:48 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 02:48 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 02:48 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 02:48 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 02:48 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 02:48 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 02:48 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 02:48 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 02:48 PM
Ethylbenzene	ND		2.17	µg/m3	1	7/17/2020 02:48 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 02:48 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 02:48 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 02:48 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 02:48 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 02:48 PM
m,p-Xylene	**2.34**		**2.17**	**µg/m3**	1	7/17/2020 02:48 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 02:48 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 02:48 PM
Naphthalene	**2.20**		**1.05**	**µg/m3**	1	7/17/2020 02:48 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 02:48 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 02:48 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 02:48 PM
Tetrachloroethene	**22.5**		**3.39**	**µg/m3**	1	7/17/2020 02:48 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 02:48 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-1 **Lab ID:** 2007534-01

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**2.26**		**1.88**	**µg/m3**	1	7/17/2020 02:48 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 02:48 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 02:48 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 02:48 PM
Trichlorofluoromethane	**3.26**		**2.81**	**µg/m3**	1	7/17/2020 02:48 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 02:48 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 02:48 PM
Surr: Bromofluorobenzene	*102*		*60-140*	*%REC*	1	7/17/2020 02:48 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-2 **Lab ID:** 2007534-02
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 03:32 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 03:32 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 03:32 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 03:32 PM
2-Butanone	**3.4**		**1.0**	**ppbv**	1	7/17/2020 03:32 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 03:32 PM
2-Propanol	**5.8**		**1.0**	**ppbv**	1	7/17/2020 03:32 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 03:32 PM
Acetone	**45**	E	**1.0**	**ppbv**	1	7/17/2020 03:32 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 03:32 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 03:32 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 03:32 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-2 **Lab ID:** 2007534-02
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Ethylbenzene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 03:32 PM
m,p-Xylene	**0.58**		**0.50**	**ppbv**	1	7/17/2020 03:32 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 03:32 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Naphthalene	**0.60**		**0.20**	**ppbv**	1	7/17/2020 03:32 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Propene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Tetrachloroethene	**0.58**		**0.50**	**ppbv**	1	7/17/2020 03:32 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Toluene	**0.69**		**0.50**	**ppbv**	1	7/17/2020 03:32 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 03:32 PM
Trichlorofluoromethane	**0.66**		**0.50**	**ppbv**	1	7/17/2020 03:32 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 03:32 PM
Surr: Bromofluorobenzene	*101*		*60-140*	*%REC*	1	7/17/2020 03:32 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 03:32 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 03:32 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 03:32 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 03:32 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 03:32 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 03:32 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 03:32 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 03:32 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 03:32 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 03:32 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 03:32 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 03:32 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 03:32 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 03:32 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 03:32 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-2
Lab ID: 2007534-02
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 03:32 PM
2-Butanone	**9.91**		**2.95**	**µg/m3**	1	7/17/2020 03:32 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 03:32 PM
2-Propanol	**14.2**		**2.46**	**µg/m3**	1	7/17/2020 03:32 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 03:32 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 03:32 PM
Acetone	**106**	E	**2.38**	**µg/m3**	1	7/17/2020 03:32 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 03:32 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 03:32 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 03:32 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 03:32 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 03:32 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 03:32 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 03:32 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 03:32 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 03:32 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 03:32 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 03:32 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 03:32 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 03:32 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 03:32 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 03:32 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 03:32 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 03:32 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 03:32 PM
Ethylbenzene	ND		2.17	µg/m3	1	7/17/2020 03:32 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 03:32 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 03:32 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 03:32 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 03:32 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 03:32 PM
m,p-Xylene	**2.52**		**2.17**	**µg/m3**	1	7/17/2020 03:32 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 03:32 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 03:32 PM
Naphthalene	**3.15**		**1.05**	**µg/m3**	1	7/17/2020 03:32 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 03:32 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 03:32 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 03:32 PM
Tetrachloroethene	**3.93**		**3.39**	**µg/m3**	1	7/17/2020 03:32 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 03:32 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-2 **Lab ID:** 2007534-02

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**2.60**		**1.88**	**µg/m3**	1	7/17/2020 03:32 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 03:32 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 03:32 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 03:32 PM
Trichlorofluoromethane	**3.71**		**2.81**	**µg/m3**	1	7/17/2020 03:32 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 03:32 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 03:32 PM
Surr: Bromofluorobenzene	*101*		*60-140*	*%REC*	1	7/17/2020 03:32 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-3 **Lab ID:** 2007534-03
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 04:16 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 04:16 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 04:16 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 04:16 PM
2-Butanone	**2.4**		**1.0**	**ppbv**	1	7/17/2020 04:16 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 04:16 PM
2-Propanol	**4.3**		**1.0**	**ppbv**	1	7/17/2020 04:16 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 04:16 PM
Acetone	**20**		**1.0**	**ppbv**	1	7/17/2020 04:16 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 04:16 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 04:16 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 04:16 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-3 **Lab ID:** 2007534-03
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Ethylbenzene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 04:16 PM
m,p-Xylene	**0.60**		**0.50**	**ppbv**	1	7/17/2020 04:16 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 04:16 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Naphthalene	**0.24**		**0.20**	**ppbv**	1	7/17/2020 04:16 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Propene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Tetrachloroethene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Toluene	**0.53**		**0.50**	**ppbv**	1	7/17/2020 04:16 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 04:16 PM
Trichlorofluoromethane	**0.68**		**0.50**	**ppbv**	1	7/17/2020 04:16 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 04:16 PM
Surr: Bromofluorobenzene	*99.2*		*60-140*	*%REC*	1	7/17/2020 04:16 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 04:16 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 04:16 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 04:16 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 04:16 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 04:16 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 04:16 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 04:16 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 04:16 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 04:16 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 04:16 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 04:16 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 04:16 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 04:16 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 04:16 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 04:16 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-3
Lab ID: 2007534-03
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 04:16 PM
2-Butanone	**7.05**		**2.95**	**µg/m3**	1	7/17/2020 04:16 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 04:16 PM
2-Propanol	**10.5**		**2.46**	**µg/m3**	1	7/17/2020 04:16 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 04:16 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 04:16 PM
Acetone	**47.0**		**2.38**	**µg/m3**	1	7/17/2020 04:16 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 04:16 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 04:16 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 04:16 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 04:16 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 04:16 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 04:16 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 04:16 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 04:16 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 04:16 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 04:16 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 04:16 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 04:16 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 04:16 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 04:16 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 04:16 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 04:16 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 04:16 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 04:16 PM
Ethylbenzene	ND		2.17	µg/m3	1	7/17/2020 04:16 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 04:16 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 04:16 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 04:16 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 04:16 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 04:16 PM
m,p-Xylene	**2.61**		**2.17**	**µg/m3**	1	7/17/2020 04:16 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 04:16 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 04:16 PM
Naphthalene	**1.26**		**1.05**	**µg/m3**	1	7/17/2020 04:16 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 04:16 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 04:16 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 04:16 PM
Tetrachloroethene	ND		3.39	µg/m3	1	7/17/2020 04:16 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 04:16 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-3 **Lab ID:** 2007534-03

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**2.00**		**1.88**	**µg/m3**	1	7/17/2020 04:16 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 04:16 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 04:16 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 04:16 PM
Trichlorofluoromethane	**3.82**		**2.81**	**µg/m3**	1	7/17/2020 04:16 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 04:16 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 04:16 PM
Surr: Bromofluorobenzene	*99.2*		*60-140*	*%REC*	1	7/17/2020 04:16 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-4 **Lab ID:** 2007534-04
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,2,4-Trimethylbenzene	**0.80**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 05:01 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 05:01 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 05:01 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 05:01 PM
2-Butanone	**7.6**		**1.0**	**ppbv**	1	7/17/2020 05:01 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 05:01 PM
2-Propanol	**5.7**		**1.0**	**ppbv**	1	7/17/2020 05:01 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 05:01 PM
Acetone	**56**	E	**1.0**	**ppbv**	1	7/17/2020 05:01 PM
Benzene	**0.83**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 05:01 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 05:01 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Cyclohexane	**0.88**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 05:01 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-4 **Lab ID:** 2007534-04
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Ethylbenzene	**1.1**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Heptane	**1.9**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Hexane	**3.8**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
m,p-Xylene	**2.1**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 05:01 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Naphthalene	**0.34**		**0.20**	**ppbv**	1	7/17/2020 05:01 PM
o-Xylene	**1.2**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Propene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Tetrachloroethene	**0.61**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Toluene	**9.0**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 05:01 PM
Trichlorofluoromethane	**0.63**		**0.50**	**ppbv**	1	7/17/2020 05:01 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 05:01 PM
Surr: Bromofluorobenzene	*95.6*		*60-140*	*%REC*	1	7/17/2020 05:01 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 05:01 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 05:01 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 05:01 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 05:01 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:01 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 05:01 PM
1,2,4-Trimethylbenzene	**3.93**		**2.46**	**µg/m3**	1	7/17/2020 05:01 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 05:01 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 05:01 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 05:01 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 05:01 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 05:01 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 05:01 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 05:01 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 05:01 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-4
Lab ID: 2007534-04
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 05:01 PM
2-Butanone	**22.3**		**2.95**	**µg/m3**	1	7/17/2020 05:01 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 05:01 PM
2-Propanol	**14.0**		**2.46**	**µg/m3**	1	7/17/2020 05:01 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 05:01 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 05:01 PM
Acetone	**133**	E	**2.38**	**µg/m3**	1	7/17/2020 05:01 PM
Benzene	**2.65**		**1.60**	**µg/m3**	1	7/17/2020 05:01 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 05:01 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 05:01 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 05:01 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 05:01 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 05:01 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 05:01 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 05:01 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 05:01 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 05:01 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 05:01 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:01 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 05:01 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 05:01 PM
Cyclohexane	**3.03**		**1.72**	**µg/m3**	1	7/17/2020 05:01 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 05:01 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 05:01 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 05:01 PM
Ethylbenzene	**4.73**		**2.17**	**µg/m3**	1	7/17/2020 05:01 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 05:01 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 05:01 PM
Heptane	**7.87**		**2.05**	**µg/m3**	1	7/17/2020 05:01 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 05:01 PM
Hexane	**13.3**		**1.76**	**µg/m3**	1	7/17/2020 05:01 PM
m,p-Xylene	**9.08**		**2.17**	**µg/m3**	1	7/17/2020 05:01 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 05:01 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 05:01 PM
Naphthalene	**1.78**		**1.05**	**µg/m3**	1	7/17/2020 05:01 PM
o-Xylene	**5.04**		**2.17**	**µg/m3**	1	7/17/2020 05:01 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 05:01 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 05:01 PM
Tetrachloroethene	**4.14**		**3.39**	**µg/m3**	1	7/17/2020 05:01 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 05:01 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-4
Lab ID: 2007534-04
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**33.8**		**1.88**	**µg/m3**	1	7/17/2020 05:01 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:01 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 05:01 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 05:01 PM
Trichlorofluoromethane	**3.54**		**2.81**	**µg/m3**	1	7/17/2020 05:01 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 05:01 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 05:01 PM
Surr: Bromofluorobenzene	*95.6*		*60-140*	*%REC*	1	7/17/2020 05:01 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-5 **Lab ID:** 2007534-05
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 05:46 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 05:46 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 05:46 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 05:46 PM
2-Butanone	**5.8**		**1.0**	**ppbv**	1	7/17/2020 05:46 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 05:46 PM
2-Propanol	**4.4**		**1.0**	**ppbv**	1	7/17/2020 05:46 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 05:46 PM
Acetone	**49**	E	**1.0**	**ppbv**	1	7/17/2020 05:46 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 05:46 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 05:46 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Cyclohexane	**0.65**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 05:46 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-5 **Lab ID:** 2007534-05
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Ethylbenzene	**0.65**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Heptane	**1.1**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Hexane	**1.7**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
m,p-Xylene	**1.3**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 05:46 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Naphthalene	**0.38**		**0.20**	**ppbv**	1	7/17/2020 05:46 PM
o-Xylene	**0.67**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Propene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Tetrachloroethene	**1.2**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Toluene	**3.4**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 05:46 PM
Trichlorofluoromethane	**0.55**		**0.50**	**ppbv**	1	7/17/2020 05:46 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 05:46 PM
Surr: Bromofluorobenzene	*97.6*		*60-140*	*%REC*	1	7/17/2020 05:46 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 05:46 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 05:46 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 05:46 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 05:46 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:46 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 05:46 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 05:46 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 05:46 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 05:46 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 05:46 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 05:46 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 05:46 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 05:46 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 05:46 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 05:46 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-5
Lab ID: 2007534-05
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 05:46 PM
2-Butanone	**17.0**		**2.95**	**µg/m3**	1	7/17/2020 05:46 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 05:46 PM
2-Propanol	**10.8**		**2.46**	**µg/m3**	1	7/17/2020 05:46 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 05:46 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 05:46 PM
Acetone	**116**	E	**2.38**	**µg/m3**	1	7/17/2020 05:46 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 05:46 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 05:46 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 05:46 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 05:46 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 05:46 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 05:46 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 05:46 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 05:46 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 05:46 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 05:46 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 05:46 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:46 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 05:46 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 05:46 PM
Cyclohexane	**2.24**		**1.72**	**µg/m3**	1	7/17/2020 05:46 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 05:46 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 05:46 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 05:46 PM
Ethylbenzene	**2.82**		**2.17**	**µg/m3**	1	7/17/2020 05:46 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 05:46 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 05:46 PM
Heptane	**4.63**		**2.05**	**µg/m3**	1	7/17/2020 05:46 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 05:46 PM
Hexane	**5.85**		**1.76**	**µg/m3**	1	7/17/2020 05:46 PM
m,p-Xylene	**5.82**		**2.17**	**µg/m3**	1	7/17/2020 05:46 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 05:46 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 05:46 PM
Naphthalene	**1.99**		**1.05**	**µg/m3**	1	7/17/2020 05:46 PM
o-Xylene	**2.91**		**2.17**	**µg/m3**	1	7/17/2020 05:46 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 05:46 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 05:46 PM
Tetrachloroethene	**7.87**		**3.39**	**µg/m3**	1	7/17/2020 05:46 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 05:46 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-5 **Lab ID:** 2007534-05

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**12.7**		**1.88**	**µg/m3**	1	7/17/2020 05:46 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 05:46 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 05:46 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 05:46 PM
Trichlorofluoromethane	**3.09**		**2.81**	**µg/m3**	1	7/17/2020 05:46 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 05:46 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 05:46 PM
Surr: Bromofluorobenzene	*97.6*		*60-140*	*%REC*	1	7/17/2020 05:46 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-6 **Lab ID:** 2007534-06
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	**1.9**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,2,4-Trimethylbenzene	**0.95**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 06:30 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 06:30 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 06:30 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 06:30 PM
2-Butanone	**8.6**		**1.0**	**ppbv**	1	7/17/2020 06:30 PM
2-Hexanone	**3.4**		**1.0**	**ppbv**	1	7/17/2020 06:30 PM
2-Propanol	**5.0**		**1.0**	**ppbv**	1	7/17/2020 06:30 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 06:30 PM
Acetone	**160**		**10**	**ppbv**	10	7/18/2020 10:32 AM
Benzene	**0.65**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 06:30 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 06:30 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Cyclohexane	**1.3**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-6 **Lab ID:** 2007534-06
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Ethylbenzene	**1.0**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Heptane	**1.3**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Hexane	**8.4**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
m,p-Xylene	**8.3**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 06:30 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Naphthalene	**0.31**		**0.20**	**ppbv**	1	7/17/2020 06:30 PM
o-Xylene	**6.4**		**0.50**	**ppbv**	1	7/17/2020 06:30 PM
Propene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Tetrachloroethene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Toluene	**34**		**5.0**	**ppbv**	10	7/18/2020 10:32 AM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 06:30 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 06:30 PM
Surr: Bromofluorobenzene	*98.8*		*60-140*	*%REC*	1	7/17/2020 06:30 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	**10.5**		**2.73**	**µg/m3**	1	7/17/2020 06:30 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 06:30 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 06:30 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 06:30 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 06:30 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 06:30 PM
1,2,4-Trimethylbenzene	**4.67**		**2.46**	**µg/m3**	1	7/17/2020 06:30 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 06:30 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 06:30 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 06:30 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 06:30 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 06:30 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 06:30 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 06:30 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 06:30 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-6
Lab ID: 2007534-06
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 06:30 PM
2-Butanone	**25.3**		**2.95**	**µg/m3**	1	7/17/2020 06:30 PM
2-Hexanone	**13.8**		**4.10**	**µg/m3**	1	7/17/2020 06:30 PM
2-Propanol	**12.3**		**2.46**	**µg/m3**	1	7/17/2020 06:30 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 06:30 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 06:30 PM
Acetone	**385**		**23.8**	**µg/m3**	10	7/18/2020 10:32 AM
Benzene	**2.08**		**1.60**	**µg/m3**	1	7/17/2020 06:30 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 06:30 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 06:30 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 06:30 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 06:30 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 06:30 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 06:30 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 06:30 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 06:30 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 06:30 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 06:30 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 06:30 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 06:30 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 06:30 PM
Cyclohexane	**4.41**		**1.72**	**µg/m3**	1	7/17/2020 06:30 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 06:30 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 06:30 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 06:30 PM
Ethylbenzene	**4.39**		**2.17**	**µg/m3**	1	7/17/2020 06:30 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 06:30 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 06:30 PM
Heptane	**5.49**		**2.05**	**µg/m3**	1	7/17/2020 06:30 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 06:30 PM
Hexane	**29.6**		**1.76**	**µg/m3**	1	7/17/2020 06:30 PM
m,p-Xylene	**36.1**		**2.17**	**µg/m3**	1	7/17/2020 06:30 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 06:30 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 06:30 PM
Naphthalene	**1.63**		**1.05**	**µg/m3**	1	7/17/2020 06:30 PM
o-Xylene	**27.8**		**2.17**	**µg/m3**	1	7/17/2020 06:30 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 06:30 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 06:30 PM
Tetrachloroethene	ND		3.39	µg/m3	1	7/17/2020 06:30 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 06:30 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-6 **Lab ID:** 2007534-06

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**129**		**18.8**	**µg/m3**	10	7/18/2020 10:32 AM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 06:30 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 06:30 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 06:30 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	7/17/2020 06:30 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 06:30 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 06:30 PM
Surr: Bromofluorobenzene	*98.8*		*60-140*	*%REC*	1	7/17/2020 06:30 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-7 **Lab ID:** 2007534-07
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,2,4-Trimethylbenzene	**0.58**		**0.50**	**ppbv**	1	7/17/2020 07:15 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 07:15 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 07:15 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 07:15 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 07:15 PM
2-Butanone	**1.1**		**1.0**	**ppbv**	1	7/17/2020 07:15 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 07:15 PM
2-Propanol	**6.2**		**1.0**	**ppbv**	1	7/17/2020 07:15 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 07:15 PM
Acetone	**12**		**1.0**	**ppbv**	1	7/17/2020 07:15 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 07:15 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 07:15 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-7 **Lab ID:** 2007534-07
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Ethylbenzene	**0.54**		**0.50**	**ppbv**	1	7/17/2020 07:15 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
m,p-Xylene	**0.98**		**0.50**	**ppbv**	1	7/17/2020 07:15 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 07:15 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Naphthalene	**0.47**		**0.20**	**ppbv**	1	7/17/2020 07:15 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Propene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Tetrachloroethene	**1.2**		**0.50**	**ppbv**	1	7/17/2020 07:15 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Toluene	**1.1**		**0.50**	**ppbv**	1	7/17/2020 07:15 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 07:15 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 07:15 PM
Surr: Bromofluorobenzene	*105*		*60-140*	*%REC*	1	7/17/2020 07:15 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 07:15 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 07:15 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 07:15 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 07:15 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 07:15 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 07:15 PM
1,2,4-Trimethylbenzene	**2.85**		**2.46**	**µg/m3**	1	7/17/2020 07:15 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 07:15 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 07:15 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 07:15 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 07:15 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 07:15 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 07:15 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 07:15 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 07:15 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-7
Lab ID: 2007534-07
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 07:15 PM
2-Butanone	**3.27**		**2.95**	**µg/m3**	1	7/17/2020 07:15 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 07:15 PM
2-Propanol	**15.1**		**2.46**	**µg/m3**	1	7/17/2020 07:15 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 07:15 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 07:15 PM
Acetone	**29.6**		**2.38**	**µg/m3**	1	7/17/2020 07:15 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 07:15 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 07:15 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 07:15 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 07:15 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 07:15 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 07:15 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 07:15 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 07:15 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 07:15 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 07:15 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 07:15 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 07:15 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 07:15 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 07:15 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 07:15 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 07:15 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 07:15 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 07:15 PM
Ethylbenzene	**2.34**		**2.17**	**µg/m3**	1	7/17/2020 07:15 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 07:15 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 07:15 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 07:15 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 07:15 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 07:15 PM
m,p-Xylene	**4.26**		**2.17**	**µg/m3**	1	7/17/2020 07:15 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 07:15 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 07:15 PM
Naphthalene	**2.46**		**1.05**	**µg/m3**	1	7/17/2020 07:15 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 07:15 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 07:15 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 07:15 PM
Tetrachloroethene	**8.34**		**3.39**	**µg/m3**	1	7/17/2020 07:15 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 07:15 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-7 **Lab ID:** 2007534-07

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**4.07**		**1.88**	**µg/m3**	1	7/17/2020 07:15 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 07:15 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 07:15 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 07:15 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	7/17/2020 07:15 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 07:15 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 07:15 PM
Surr: Bromofluorobenzene	*105*		*60-140*	*%REC*	1	7/17/2020 07:15 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-8 **Lab ID:** 2007534-08
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,2,4-Trimethylbenzene	**0.59**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 08:00 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 08:00 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 08:00 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 08:00 PM
2-Butanone	**1.2**		**1.0**	**ppbv**	1	7/17/2020 08:00 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 08:00 PM
2-Propanol	**5.8**		**1.0**	**ppbv**	1	7/17/2020 08:00 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 08:00 PM
Acetone	**13**		**1.0**	**ppbv**	1	7/17/2020 08:00 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 08:00 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 08:00 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 08:00 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-8 **Lab ID:** 2007534-08
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Ethylbenzene	**0.50**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Hexane	**0.52**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
m,p-Xylene	**1.0**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 08:00 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Naphthalene	**0.43**		**0.20**	**ppbv**	1	7/17/2020 08:00 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Propene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Tetrachloroethene	**1.1**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Toluene	**1.1**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 08:00 PM
Trichlorofluoromethane	**0.68**		**0.50**	**ppbv**	1	7/17/2020 08:00 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 08:00 PM
Surr: Bromofluorobenzene	*98.1*		*60-140*	*%REC*	1	7/17/2020 08:00 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 08:00 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 08:00 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 08:00 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 08:00 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:00 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 08:00 PM
1,2,4-Trimethylbenzene	**2.90**		**2.46**	**µg/m3**	1	7/17/2020 08:00 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 08:00 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 08:00 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 08:00 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 08:00 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 08:00 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 08:00 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 08:00 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 08:00 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-8
Lab ID: 2007534-08
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 08:00 PM
2-Butanone	**3.45**		**2.95**	**µg/m3**	1	7/17/2020 08:00 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 08:00 PM
2-Propanol	**14.2**		**2.46**	**µg/m3**	1	7/17/2020 08:00 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 08:00 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 08:00 PM
Acetone	**31.9**		**2.38**	**µg/m3**	1	7/17/2020 08:00 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 08:00 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 08:00 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 08:00 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 08:00 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 08:00 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 08:00 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 08:00 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 08:00 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 08:00 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 08:00 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 08:00 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:00 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 08:00 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 08:00 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 08:00 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 08:00 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 08:00 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 08:00 PM
Ethylbenzene	**2.17**		**2.17**	**µg/m3**	1	7/17/2020 08:00 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 08:00 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 08:00 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 08:00 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 08:00 PM
Hexane	**1.83**		**1.76**	**µg/m3**	1	7/17/2020 08:00 PM
m,p-Xylene	**4.56**		**2.17**	**µg/m3**	1	7/17/2020 08:00 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 08:00 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 08:00 PM
Naphthalene	**2.25**		**1.05**	**µg/m3**	1	7/17/2020 08:00 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 08:00 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 08:00 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 08:00 PM
Tetrachloroethene	**7.53**		**3.39**	**µg/m3**	1	7/17/2020 08:00 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 08:00 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-8 **Lab ID:** 2007534-08

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**4.26**		**1.88**	**µg/m3**	1	7/17/2020 08:00 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:00 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 08:00 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 08:00 PM
Trichlorofluoromethane	**3.82**		**2.81**	**µg/m3**	1	7/17/2020 08:00 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 08:00 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 08:00 PM
Surr: Bromofluorobenzene	*98.1*		*60-140*	*%REC*	1	7/17/2020 08:00 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-9 **Lab ID:** 2007534-09
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,2,4-Trimethylbenzene	**0.56**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 08:45 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 08:45 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 08:45 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 08:45 PM
2-Butanone	ND		1.0	ppbv	1	7/17/2020 08:45 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 08:45 PM
2-Propanol	**4.7**		**1.0**	**ppbv**	1	7/17/2020 08:45 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 08:45 PM
Acetone	**8.3**		**1.0**	**ppbv**	1	7/17/2020 08:45 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 08:45 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 08:45 PM
Chloromethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: SV-9 **Lab ID:** 2007534-09
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Ethylbenzene	**0.61**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
m,p-Xylene	**0.95**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 08:45 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Naphthalene	**0.40**		**0.20**	**ppbv**	1	7/17/2020 08:45 PM
o-Xylene	**0.51**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
Propene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Tetrachloroethene	**1.2**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Toluene	**0.95**		**0.50**	**ppbv**	1	7/17/2020 08:45 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 08:45 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 08:45 PM
Surr: Bromofluorobenzene	*101*		*60-140*	*%REC*	1	7/17/2020 08:45 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 08:45 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 08:45 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 08:45 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 08:45 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:45 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 08:45 PM
1,2,4-Trimethylbenzene	**2.75**		**2.46**	**µg/m3**	1	7/17/2020 08:45 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 08:45 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 08:45 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 08:45 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 08:45 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 08:45 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 08:45 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 08:45 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 08:45 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: SV-9
Lab ID: 2007534-09
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 08:45 PM
2-Butanone	ND		2.95	µg/m3	1	7/17/2020 08:45 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 08:45 PM
2-Propanol	**11.5**		**2.46**	**µg/m3**	1	7/17/2020 08:45 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 08:45 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 08:45 PM
Acetone	**19.6**		**2.38**	**µg/m3**	1	7/17/2020 08:45 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 08:45 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 08:45 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 08:45 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 08:45 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 08:45 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 08:45 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 08:45 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 08:45 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 08:45 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 08:45 PM
Chloromethane	ND		1.03	µg/m3	1	7/17/2020 08:45 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:45 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 08:45 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 08:45 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 08:45 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 08:45 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 08:45 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 08:45 PM
Ethylbenzene	**2.65**		**2.17**	**µg/m3**	1	7/17/2020 08:45 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 08:45 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 08:45 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 08:45 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 08:45 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 08:45 PM
m,p-Xylene	**4.13**		**2.17**	**µg/m3**	1	7/17/2020 08:45 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 08:45 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 08:45 PM
Naphthalene	**2.10**		**1.05**	**µg/m3**	1	7/17/2020 08:45 PM
o-Xylene	**2.21**		**2.17**	**µg/m3**	1	7/17/2020 08:45 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 08:45 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 08:45 PM
Tetrachloroethene	**8.41**		**3.39**	**µg/m3**	1	7/17/2020 08:45 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 08:45 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: SV-9 **Lab ID:** 2007534-09

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**3.58**		**1.88**	**µg/m3**	1	7/17/2020 08:45 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 08:45 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 08:45 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 08:45 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	7/17/2020 08:45 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 08:45 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 08:45 PM
Surr: Bromofluorobenzene	*101*		*60-140*	*%REC*	1	7/17/2020 08:45 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: AA-I **Lab ID:** 2007534-10
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 09:29 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 09:29 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 09:29 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 09:29 PM
2-Butanone	ND		1.0	ppbv	1	7/17/2020 09:29 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 09:29 PM
2-Propanol	ND		1.0	ppbv	1	7/17/2020 09:29 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 09:29 PM
Acetone	**6.8**		**1.0**	**ppbv**	1	7/17/2020 09:29 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 09:29 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 09:29 PM
Chloromethane	**0.56**		**0.50**	**ppbv**	1	7/17/2020 09:29 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	7/17/2020 09:29 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: AA-I **Lab ID:** 2007534-10
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Ethylbenzene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 09:29 PM
m,p-Xylene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 09:29 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Naphthalene	**0.25**		**0.20**	**ppbv**	1	7/17/2020 09:29 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Propene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Tetrachloroethene	**0.50**		**0.50**	**ppbv**	1	7/17/2020 09:29 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Toluene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 09:29 PM
Trichlorofluoromethane	**0.64**		**0.50**	**ppbv**	1	7/17/2020 09:29 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 09:29 PM
Surr: Bromofluorobenzene	*98.9*		*60-140*	*%REC*	1	7/17/2020 09:29 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 09:29 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 09:29 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 09:29 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 09:29 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 09:29 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 09:29 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 09:29 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 09:29 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 09:29 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 09:29 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 09:29 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 09:29 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 09:29 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 09:29 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 09:29 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: AA-I
Lab ID: 2007534-10
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 09:29 PM
2-Butanone	ND		2.95	µg/m3	1	7/17/2020 09:29 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 09:29 PM
2-Propanol	ND		2.46	µg/m3	1	7/17/2020 09:29 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 09:29 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 09:29 PM
Acetone	**16.1**		**2.38**	**µg/m3**	1	7/17/2020 09:29 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 09:29 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 09:29 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 09:29 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 09:29 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 09:29 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 09:29 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 09:29 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 09:29 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 09:29 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 09:29 PM
Chloromethane	**1.16**		**1.03**	**µg/m3**	1	7/17/2020 09:29 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 09:29 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 09:29 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 09:29 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 09:29 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 09:29 PM
Dichlorodifluoromethane	ND		2.47	µg/m3	1	7/17/2020 09:29 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 09:29 PM
Ethylbenzene	ND		2.17	µg/m3	1	7/17/2020 09:29 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 09:29 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 09:29 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 09:29 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 09:29 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 09:29 PM
m,p-Xylene	ND		2.17	µg/m3	1	7/17/2020 09:29 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 09:29 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 09:29 PM
Naphthalene	**1.31**		**1.05**	**µg/m3**	1	7/17/2020 09:29 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 09:29 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 09:29 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 09:29 PM
Tetrachloroethene	**3.39**		**3.39**	**µg/m3**	1	7/17/2020 09:29 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 09:29 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: AA-I **Lab ID:** 2007534-10

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		1.88	µg/m3	1	7/17/2020 09:29 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 09:29 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 09:29 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 09:29 PM
Trichlorofluoromethane	**3.60**		**2.81**	**µg/m3**	1	7/17/2020 09:29 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 09:29 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 09:29 PM
Surr: Bromofluorobenzene	*98.9*		*60-140*	*%REC*	1	7/17/2020 09:29 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: AA-O **Lab ID:** 2007534-11
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,2,4-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,2-Dibromoethane	ND		0.20	ppbv	1	7/17/2020 10:14 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,3-Butadiene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 10:14 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	1	7/17/2020 10:14 PM
1,4-Dioxane	ND		1.0	ppbv	1	7/17/2020 10:14 PM
2-Butanone	ND		1.0	ppbv	1	7/17/2020 10:14 PM
2-Hexanone	ND		1.0	ppbv	1	7/17/2020 10:14 PM
2-Propanol	ND		1.0	ppbv	1	7/17/2020 10:14 PM
4-Ethyltoluene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	1	7/17/2020 10:14 PM
Acetone	**8.7**		**1.0**	**ppbv**	1	7/17/2020 10:14 PM
Benzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Benzyl chloride	ND		1.0	ppbv	1	7/17/2020 10:14 PM
Bromodichloromethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Bromoform	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Bromomethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Carbon disulfide	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Carbon tetrachloride	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Chlorobenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Chloroethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Chloroform	ND		0.20	ppbv	1	7/17/2020 10:14 PM
Chloromethane	**0.59**		**0.50**	**ppbv**	1	7/17/2020 10:14 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Cumene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Cyclohexane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Dibromochloromethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Dichlorodifluoromethane	**0.52**		**0.50**	**ppbv**	1	7/17/2020 10:14 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534
Sample ID: AA-O **Lab ID:** 2007534-11
Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Ethylbenzene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Freon 113	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Freon 114	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Heptane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Hexane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
m,p-Xylene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Methylene chloride	ND		2.0	ppbv	1	7/17/2020 10:14 PM
MTBE	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Naphthalene	ND		0.20	ppbv	1	7/17/2020 10:14 PM
o-Xylene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Propene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Styrene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Tetrachloroethene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Tetrahydrofuran	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Toluene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Trichloroethene	ND		0.20	ppbv	1	7/17/2020 10:14 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Vinyl acetate	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Vinyl chloride	ND		0.50	ppbv	1	7/17/2020 10:14 PM
Surr: Bromofluorobenzene	*100*		*60-140*	*%REC*	1	7/17/2020 10:14 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 10:14 PM
1,1,2,2-Tetrachloroethane	ND		3.43	µg/m3	1	7/17/2020 10:14 PM
1,1,2-Trichloroethane	ND		2.73	µg/m3	1	7/17/2020 10:14 PM
1,1-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 10:14 PM
1,1-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 10:14 PM
1,2,4-Trichlorobenzene	ND		3.71	µg/m3	1	7/17/2020 10:14 PM
1,2,4-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 10:14 PM
1,2-Dibromoethane	ND		1.54	µg/m3	1	7/17/2020 10:14 PM
1,2-Dichlorobenzene	ND		3.01	µg/m3	1	7/17/2020 10:14 PM
1,2-Dichloroethane	ND		2.02	µg/m3	1	7/17/2020 10:14 PM
1,2-Dichloropropane	ND		2.31	µg/m3	1	7/17/2020 10:14 PM
1,3,5-Trimethylbenzene	ND		2.46	µg/m3	1	7/17/2020 10:14 PM
1,3-Butadiene	ND		1.11	µg/m3	1	7/17/2020 10:14 PM
1,3-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 10:14 PM
1,4-Dichlorobenzene	ND		6.01	µg/m3	1	7/17/2020 10:14 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
Work Order: 2007534
Sample ID: AA-O
Lab ID: 2007534-11
Collection Date: 7/16/2020
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		3.60	µg/m3	1	7/17/2020 10:14 PM
2-Butanone	ND		2.95	µg/m3	1	7/17/2020 10:14 PM
2-Hexanone	ND		4.10	µg/m3	1	7/17/2020 10:14 PM
2-Propanol	ND		2.46	µg/m3	1	7/17/2020 10:14 PM
4-Ethyltoluene	ND		2.46	µg/m3	1	7/17/2020 10:14 PM
4-Methyl-2-pentanone	ND		4.10	µg/m3	1	7/17/2020 10:14 PM
Acetone	**20.6**		**2.38**	**µg/m3**	1	7/17/2020 10:14 PM
Benzene	ND		1.60	µg/m3	1	7/17/2020 10:14 PM
Benzyl chloride	ND		5.18	µg/m3	1	7/17/2020 10:14 PM
Bromodichloromethane	ND		3.35	µg/m3	1	7/17/2020 10:14 PM
Bromoform	ND		5.17	µg/m3	1	7/17/2020 10:14 PM
Bromomethane	ND		1.94	µg/m3	1	7/17/2020 10:14 PM
Carbon disulfide	ND		1.56	µg/m3	1	7/17/2020 10:14 PM
Carbon tetrachloride	ND		3.15	µg/m3	1	7/17/2020 10:14 PM
Chlorobenzene	ND		2.30	µg/m3	1	7/17/2020 10:14 PM
Chloroethane	ND		1.32	µg/m3	1	7/17/2020 10:14 PM
Chloroform	ND		0.976	µg/m3	1	7/17/2020 10:14 PM
Chloromethane	**1.22**		**1.03**	**µg/m3**	1	7/17/2020 10:14 PM
cis-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 10:14 PM
cis-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 10:14 PM
Cumene	ND		2.46	µg/m3	1	7/17/2020 10:14 PM
Cyclohexane	ND		1.72	µg/m3	1	7/17/2020 10:14 PM
Dibromochloromethane	ND		4.26	µg/m3	1	7/17/2020 10:14 PM
Dichlorodifluoromethane	**2.57**		**2.47**	**µg/m3**	1	7/17/2020 10:14 PM
Ethyl acetate	ND		1.80	µg/m3	1	7/17/2020 10:14 PM
Ethylbenzene	ND		2.17	µg/m3	1	7/17/2020 10:14 PM
Freon 113	ND		3.83	µg/m3	1	7/17/2020 10:14 PM
Freon 114	ND		3.50	µg/m3	1	7/17/2020 10:14 PM
Heptane	ND		2.05	µg/m3	1	7/17/2020 10:14 PM
Hexachlorobutadiene	ND		5.33	µg/m3	1	7/17/2020 10:14 PM
Hexane	ND		1.76	µg/m3	1	7/17/2020 10:14 PM
m,p-Xylene	ND		2.17	µg/m3	1	7/17/2020 10:14 PM
Methylene chloride	ND		7.00	µg/m3	1	7/17/2020 10:14 PM
MTBE	ND		1.80	µg/m3	1	7/17/2020 10:14 PM
Naphthalene	ND		1.05	µg/m3	1	7/17/2020 10:14 PM
o-Xylene	ND		2.17	µg/m3	1	7/17/2020 10:14 PM
Propene	ND		0.861	µg/m3	1	7/17/2020 10:14 PM
Styrene	ND		2.13	µg/m3	1	7/17/2020 10:14 PM
Tetrachloroethene	ND		3.39	µg/m3	1	7/17/2020 10:14 PM
Tetrahydrofuran	ND		1.47	µg/m3	1	7/17/2020 10:14 PM

Note:

ALS Environmental

Date: *20-Jul-20*

Client: ATC Group Services LLC

Project: Former IRS Covington, KY; 241EN00715 **Work Order:** 2007534

Sample ID: AA-O **Lab ID:** 2007534-11

Collection Date: 7/16/2020 **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		1.88	µg/m3	1	7/17/2020 10:14 PM
trans-1,2-Dichloroethene	ND		1.98	µg/m3	1	7/17/2020 10:14 PM
trans-1,3-Dichloropropene	ND		2.27	µg/m3	1	7/17/2020 10:14 PM
Trichloroethene	ND		1.07	µg/m3	1	7/17/2020 10:14 PM
Trichlorofluoromethane	ND		2.81	µg/m3	1	7/17/2020 10:14 PM
Vinyl acetate	ND		1.76	µg/m3	1	7/17/2020 10:14 PM
Vinyl chloride	ND		1.28	µg/m3	1	7/17/2020 10:14 PM
Surr: Bromofluorobenzene	*100*		*60-140*	*%REC*	1	7/17/2020 10:14 PM

Note:

Batch ID: **R179226** Instrument ID **VMS3** Method: **ETO-15**

mblk Sample ID: **MBLK-R179226** Units: **ppbv** Analysis Date: **7/17/2020 01:57 PM**

Client ID: Run ID: **VMS3_200717A** SeqNo: **2270658** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.20								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	1.0								
2-Hexanone	ND	1.0								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	1.0								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.20								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								

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

QC BATCH REPORT

Batch ID: **R179226** Instrument ID **VMS3** Method: **ETO-15**

Freon 113	ND	0.50					
Freon 114	ND	0.50					
Heptane	ND	0.50					
Hexachlorobutadiene	ND	0.50					
Hexane	ND	0.50					
m,p-Xylene	ND	0.50					
Methylene chloride	ND	2.0					
MTBE	ND	0.50					
Naphthalene	ND	0.20					
o-Xylene	ND	0.50					
Propene	ND	0.50					
Styrene	ND	0.50					
Tetrachloroethene	ND	0.50					
Tetrahydrofuran	ND	0.50					
Toluene	ND	0.50					
trans-1,2-Dichloroethene	ND	0.50					
trans-1,3-Dichloropropene	ND	0.50					
Trichloroethene	ND	0.20					
Trichlorofluoromethane	ND	0.50					
Vinyl acetate	ND	0.50					
Vinyl chloride	ND	0.50					
Surr: Bromofluorobenzene	9.17	0	*10*	0	*91.7*	*60-140*	0

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

Client: ATC Group Services LLC
Work Order: 2007534
Project: Former IRS Covington, KY; 241EN00715

QC BATCH REPORT

Batch ID: **R179226** Instrument ID **VMS3** Method: **ETO-15**

lcs Sample ID: **LCS-R179226** Units: **ppbv** Analysis Date: **7/17/2020 01:13 PM**
Client ID: Run ID: **VMS3_200717A** SeqNo: **2270657** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.27	0.50	10	0	103	58.8-163	0			
1,1,2,2-Tetrachloroethane	8.92	0.50	10	0	89.2	60-140	0			
1,1,2-Trichloroethane	9.48	0.50	10	0	94.8	60-140	0			
1,1-Dichloroethane	9.2	0.50	10	0	92	60-140	0			
1,1-Dichloroethene	9.82	0.50	10	0	98.2	60-140	0			
1,2,4-Trichlorobenzene	11.61	0.50	10	0	116	49.3-150	0			
1,2,4-Trimethylbenzene	10.35	0.50	10	0	104	50.1-162	0			
1,2-Dibromoethane	9.53	0.20	10	0	95.3	60-140	0			
1,2-Dichlorobenzene	10.65	0.50	10	0	106	41.9-141	0			
1,2-Dichloroethane	9.65	0.50	10	0	96.5	60-140	0			
1,2-Dichloropropane	8.75	0.50	10	0	87.5	60-140	0			
1,3,5-Trimethylbenzene	9.84	0.50	10	0	98.4	60-140	0			
1,3-Butadiene	10.15	0.50	10	0	102	50.6-140	0			
1,3-Dichlorobenzene	10.56	1.0	10	0	106	60-140	0			
1,4-Dichlorobenzene	10.19	1.0	10	0	102	55.1-145	0			
1,4-Dioxane	8.75	1.0	10	0	87.5	60-140	0			
2-Butanone	8.9	1.0	10	0	89	60-140	0			
2-Hexanone	8.04	1.0	10	0	80.4	56.2-162	0			
2-Propanol	8.15	1.0	10	0	81.5	60-140	0			
4-Ethyltoluene	10.53	0.50	10	0	105	60-140	0			
4-Methyl-2-pentanone	8.21	1.0	10	0	82.1	60-140	0			
Acetone	8.79	1.0	10	0	87.9	60-140	0			
Benzene	9.34	0.50	10	0	93.4	60-140	0			
Benzyl chloride	9.57	1.0	10	0	95.7	31.9-174	0			
Bromodichloromethane	9.95	0.50	10	0	99.5	60-140	0			
Bromoform	11.44	0.50	10	0	114	60-140	0			
Bromomethane	11.4	0.50	10	0	114	60-140	0			
Carbon disulfide	9.54	0.50	10	0	95.4	60-140	0			
Carbon tetrachloride	10.77	0.50	10	0	108	60-140	0			
Chlorobenzene	10.21	0.50	10	0	102	60-140	0			
Chloroethane	8.33	0.50	10	0	83.3	60-140	0			
Chloroform	9.65	0.20	10	0	96.5	60-140	0			
Chloromethane	8.84	0.50	10	0	88.4	60-140	0			
cis-1,2-Dichloroethene	9.42	0.50	10	0	94.2	60-140	0			
cis-1,3-Dichloropropene	9.54	0.50	10	0	95.4	60-140	0			
Cumene	10.39	0.50	10	0	104	60-140	0			
Cyclohexane	9.73	0.50	10	0	97.3	60-140	0			
Dibromochloromethane	10.4	0.50	10	0	104	60-140	0			
Dichlorodifluoromethane	10.62	0.50	10	0	106	60-140	0			
Ethyl acetate	8.95	0.50	10	0	89.5	60-140	0			
Ethylbenzene	10.2	0.50	10	0	102	60-140	0			
Freon 113	10.2	0.50	10	0	102	60-140	0			

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

Client: ATC Group Services LLC
Work Order: 2007534
Project: Former IRS Covington, KY; 241EN00715

QC BATCH REPORT

Batch ID: **R179226** Instrument ID **VMS3** Method: **ETO-15**

Freon 114	10.39	0.50	10	0	104	60-140	0
Heptane	8.74	0.50	10	0	87.4	60-140	0
Hexachlorobutadiene	11.16	0.50	10	0	112	60-140	0
Hexane	8.94	0.50	10	0	89.4	60-140	0
m,p-Xylene	20.82	0.50	20	0	104	60-140	0
Methylene chloride	8.47	2.0	10	0	84.7	60-140	0
MTBE	9.72	0.50	10	0	97.2	60.8-151	0
Naphthalene	10.37	0.20	10	0	104	53.1-152	0
o-Xylene	10.3	0.50	10	0	103	60-140	0
Propene	9.02	0.50	10	0	90.2	34.4-139	0
Styrene	10.44	0.50	10	0	104	60-140	0
Tetrachloroethene	11.32	0.50	10	0	113	60-140	0
Tetrahydrofuran	8.02	0.50	10	0	80.2	60-140	0
Toluene	9.95	0.50	10	0	99.5	60-140	0
trans-1,2-Dichloroethene	9.62	0.50	10	0	96.2	60-140	0
trans-1,3-Dichloropropene	9.28	0.50	10	0	92.8	60-140	0
Trichloroethene	10.04	0.20	10	0	100	60-140	0
Trichlorofluoromethane	10.74	0.50	10	0	107	60-140	0
Vinyl acetate	9.03	0.50	10	0	90.3	48.4-145	0
Vinyl chloride	10.76	0.50	10	0	108	60-140	0
Surr: Bromofluorobenzene	9.83	0	*10*	0	*98.3*	*60-140*	0

The following samples were analyzed in this batch:

2007534-01A	2007534-02A	2007534-03A
2007534-04A	2007534-05A	2007534-06A
2007534-07A	2007534-08A	2007534-09A
2007534-10A	2007534-11A	

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

ALS Environmental

Date: 20-Jul-20

Client: ATC Group Services LLC
Project: Former IRS Covington, KY; 241EN00715
WorkOrder: **2007534**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
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

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/m3	
ppbv	

ALS Environmental

Sample Receipt Checklist

Client Name: **ATC-CINCINNATI** Date/Time Received: **17-Jul-20 08:30**

Work Order: **2007534** Received by: **JR**

Checklist completed by Rob Nieman 17-Jul-20 Reviewed by: Rob Nieman 20-Jul-20

eSignature | Date | eSignature | Date

Matrices:

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Air Canister - Chain of Custody Record / Analytical Service Request

Page 1 of 1

2007534

02539

Ship To: ALS Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Requested Turnaround Time in Business Days (Surcharges) please circle
(1 Day (100%)) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No.

OH VAP: ○ Yes ◉ No
OH BUSTR: ○ Yes ◉ No

Company Name & Address (Reporting Information)
ATC Group Services
11121 Cana Road
Sharonville OH 45241

Project Name: Former IRS Covington Ky
Project Number: 241EN00715

Project Manager: Mike Luessen

P.O. # / Billing Information

Phone: 513-77-2112
Fax:

Email Address for Result Reporting: Mike Luessen, Bill Harris, Mike Baumgartner

Sampler (Print & Sign): Michael Baumgartner / Michael Baumgartner

Analysis Method

Type:
SS = SubSlab
IA = Indoor Air
SG = Soil Gas
O = Other
AA = Ambient Air
SVE = Soil Vapor Extract

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	PID	TO15 VOCs	Type	Comments / Specific Instructions (ie: water or pressure issues)
SV-1	01	7-16-20	1545	109974	101770	30	5	0.2	x	SS	
SV-2	02		1547	119826	119046	30	4	0.4	x	SS	
SV-3	03		1550	119828	109473	30	3	0.6	x	SS	
SV-4	04		1555	101805	108982	30	4	0.4	x	SS	
SV-5	05		1557	109972	109209	30	5	0.8	x	SS	
SV-6	06		1605	119690	119037	30	8	0.7	x	SS	
SV-7	07		1610	109961	119007	30	4	0.7	x	SS	
SV-8	08		1615	119824	119706	30	4	0.6	x	SS	
SV-9	09		1620	109963	119032	30	5	0.4	x	SS	
AA-I	10		1600	109150	119617	30	5	0.0	x	AA	
AA-O	11	7-16-20	1620	119003	119049	30	4	0.0	x	~~AA~~	

There will be additional charges for damaged equipment

Report QC Levels _____
EDD required Yes / No
Type: _____ Units: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael Baumgartner	7-17-20	0830		7/17/2020	0830
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature ____°C

Appendix I

VISL Documentation

Site-specific VISL Results
Commercial Equation Inputs

*** Inputted values different from Commercial defaults are highlighted.**
Output generated 21JUL2020:10:41:23

Variable	Commercial Air Default Value	Form-input Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT_w (averaging time - composite worker)	365	365
ED_w (exposure duration - composite worker) yr	25	25
EF_w (exposure frequency - composite worker) day/yr	250	250
ET_w (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) yr	70	70
TR (target risk) unitless	0.000001	0.000001

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? (C_{vp} > $C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? (C_{hc} > $C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=1) C_{gw},Target ($\mu g/L$)	Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp} (25 ℃) ($\mu g/m^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu g/m^3$)	Temperature for Maximum Groundwater Vapor Concentration (℃)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{ia,c}$ ($\mu g/m^3$)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ ($\mu g/m^3$)
Acetone	67-64-1	Yes	Yes	Yes	Yes	135000	NC	4510000	94500000	--	723000000	1430000000	25	2.5	CRC89			30.9	A	No		135000
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57	CA	52.4	6.93	No (5)	398000000	406000000	25	1.2	CRC89	0.0000078	I	0.03	I	No	1.57	131
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	26300	NC	876000	4290	--	438000000	337000000	25	1.3	CRC89			6	I	No		26300
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1750	NC	58400	21.4	--	248000000	278000000	25	1.05	CRC89	0.0000025	C	0.4	P	No	4.91	1750
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3070	NC	102000	41.7	--	701000000	699000000	25	1.1	CRC89			0.7	I	No		3070
Hexanone, 2-	591-78-6	Yes	Yes	Yes	Yes	131	NC	4380	34500	--	62500000	65500000	25	1	CRC89			0.03	I	No		131
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	876	NC	29200	2650000	--	147000000	331000000	25	2	CRC89			0.2	P	No		876
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	21900	NC	730000	9410000	--	351000000	519000000	25	1.4	CRC89			5	I	No		21900
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	0.361	CA	12	20.1	--	586000	558000	25	0.9	CRC89	0.000034	C	0.003	I	No	0.361	13.1
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	47.2	CA	1570	65.2	No (5)	165000000	149000000	25			0.00000026	I	0.04	I	No	47.2	175
Toluene	108-88-3	Yes	Yes	Yes	Yes	21900	NC	730000	80700	No (1000)	141000000	143000000	25	1.1	CRC89			5	I	No		21900
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	Yes	Yes	21900	NC	730000	31100	No (200)	890000000	907000000	25	8	CRC89			5	I	No		21900
Trichlorofluoromethane	75-69-4	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info						5930000000	4360000000	25							No		
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	263	NC	8760	1040	--	13600000	14400000	25	0.9	CRC89			0.06	I	No		263
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	263	NC	8760	733	--	16000000	17300000	25	1	CRC89			0.06	I	No		263
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	438	NC	14600	1620	Yes (10000)	45600000	28700000	25					0.1	I	No		438

Commercial Vapor Intrusion Risk

Output generated 21JUL2020:10:41:23

Chemical	CAS Number	Site Sub-Slab and Exterior Soil Gas Concentration C_{sg} ($\mu g/m^3$)	Site Indoor Air Concentration $C_{i,a}$ ($\mu g/m^3$)	VI Carcinogenic Risk CDI ($\mu g/m^3$)	**VI Carcinogenic Risk CR**	VI Hazard CDI (mg/m^3)	**VI Hazard HQ**	IUR $(ug/m^3)^{-1}$	**IUR Ref**	Chronic RfC (mg/m^3)	**RfC Ref**	**Temperature (°C) for Groundwater Vapor Concentration**	**Mutagen?**
Acetone	67-64-1	385	11.6	0.942		0.00264	0.0000854			30.9	ATSDR	25	No
Benzene	71-43-2	2.65	0.0795	0.00648	5.06E-08	0.0000182	0.000605	0.0000078	I	0.03	IRIS	25	No
Cyclohexane	110-82-7	4.41	0.132	0.0108		0.0000302	0.00000503			6	IRIS	25	No
Ethylbenzene	100-41-4	4.73	0.142	0.0116	2.89E-08	0.0000324	0.0000324	0.0000025	C	1	IRIS	25	No
Heptane, N-	142-82-5	7.87	0.236	0.0193		0.0000539	0.000135			0.4	PPRTV	25	No
Hexane, N-	110-54-3	29.6	0.888	0.0724		0.000203	0.00029			0.7	IRIS	25	No
Hexanone, 2-	591-78-6	13.8	0.414	0.0338		0.0000945	0.00315			0.03	IRIS	25	No
Isopropanol	67-63-0	15.1	0.453	0.0369		0.000103	0.000517			0.2	PPRTV	25	No
Methyl Ethyl Ketone (2-Butanone)	78-93-3	25.3	0.759	0.0619		0.000173	0.0000347			5	IRIS	25	No
Naphthalene	91-20-3	3.15	0.0945	0.00771	0.000000262	0.0000216	0.00719	0.000034	C	0.003	IRIS	25	No
Tetrachloroethylene	127-18-4	22.5	0.675	0.055	1.43E-08	0.000154	0.00385	0.00000026	I	0.04	IRIS	25	No
Toluene	108-88-3	129	3.87	0.316		0.000884	0.000177			5	IRIS	25	No
Trichloroethane, 1,1,1-	71-55-6	10.5	0.315	0.0257		0.0000719	0.0000144			5	IRIS	25	No
Trichlorofluoromethane	75-69-4	3.82										25	No
Trimethylbenzene, 1,2,4-	95-63-6	5.36	0.161	0.0131		0.0000367	0.000612			0.06	IRIS	25	No
Trimethylbenzene, 1,3,5-	108-67-8	3.1	0.093	0.00758		0.0000212	0.000354			0.06	IRIS	25	No
Xylenes	1330-20-7	63.9	1.92	0.156		0.000438	0.00438			0.1	IRIS	25	No
**Sum*					*0.000000356*		*0.0214*						

Site-specific VISL Results
Resident Equation Inputs

*** Inputted values different from Resident defaults are highlighted.**
Output generated 21JUL2020:10:31:16

Variable	Resident Air Default Value	Form-input Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
ED_{res} (exposure duration) years	26	26
$ED_{0\text{-}2}$ (mutagenic exposure duration first phase) years	2	2
$ED_{2\text{-}6}$ (mutagenic exposure duration second phase) years	4	4
$ED_{6\text{-}16}$ (mutagenic exposure duration third phase) years	10	10
$ED_{16\text{-}26}$ (mutagenic exposure duration fourth phase) years	10	10
EF_{res} (exposure frequency) days/year	350	350
$EF_{0\text{-}2}$ (mutagenic exposure frequency first phase) days/year	350	350
$EF_{2\text{-}6}$ (mutagenic exposure frequency second phase) days/year	350	350
$EF_{6\text{-}16}$ (mutagenic exposure frequency third phase) days/year	350	350
$EF_{16\text{-}26}$ (mutagenic exposure frequency fourth phase) days/year	350	350
ET_{res} (exposure time) hours/day	24	24
$ET_{0\text{-}2}$ (mutagenic exposure time first phase) hours/day	24	24
$ET_{2\text{-}6}$ (mutagenic exposure time second phase) hours/day	24	24
$ET_{6\text{-}16}$ (mutagenic exposure time third phase) hours/day	24	24
$ET_{16\text{-}26}$ (mutagenic exposure time fourth phase) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) years	70	70
TR (target risk) unitless	0.000001	1.00E-06

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? (C_{vp} > $C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? (C_{hc} > $C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=1) C_{gw},Target ($\mu g/L$)	Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp} (25 °C) ($\mu g/m^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu g/m^3$)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{ia,c}$ ($\mu g/m^3$)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ ($\mu g/m^3$)
Acetone	67-64-1	Yes	Yes	Yes	Yes	32200	NC	1070000	22500000	--	723000000	1430000000	25	2.5	CRC89			30.9	A	No		32200
Benzene	71-43-2	Yes	Yes	Yes	Yes	0.36	CA	12	1.59	Yes (5)	398000000	406000000	25	1.2	CRC89	0.0000078	I	0.03	I	No	0.36	31.3
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	6260	NC	209000	1020	--	438000000	337000000	25	1.3	CRC89			6	I	No		6260
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	417	NC	13900	5.1	--	248000000	278000000	25	1.05	CRC89	0.0000025	C	0.4	P	No	1.12	417
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	730	NC	24300	9.92	--	701000000	699000000	25	1.1	CRC89			0.7	I	No		730
Hexanone, 2-	591-78-6	Yes	Yes	Yes	Yes	31.3	NC	1040	8210	--	62500000	65500000	25	1	CRC89			0.03	I	No		31.3
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	209	NC	6950	630000	--	147000000	331000000	25	2	CRC89			0.2	P	No		209
Butanone)	78-93-3	Yes	Yes	Yes	Yes	5210	NC	174000	2240000	--	351000000	519000000	25	1.4	CRC89			5	I	No		5210
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	0.0826	CA	2.75	4.59	--	586000	558000	25	0.9	CRC89	0.000034	C	0.003	I	No	0.0826	3.13
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	10.8	CA	360	14.9	No (5)	165000000	149000000	25			0.00000026	I	0.04	I	No	10.8	41.7
Toluene	108-88-3	Yes	Yes	Yes	Yes	5210	NC	174000	19200	No (1000)	141000000	143000000	25	1.1	CRC89			5	I	No		5210
Trichloroethane, 1,1,1-	71-55-6	Yes	Yes	Yes	Yes	5210	NC	174000	7420	No (200)	890000000	907000000	25	8	CRC89			5	I	No		5210
Trichlorofluoromethane	75-69-4	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info						5930000000	4360000000	25							No		
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	62.6	NC	2090	248	--	13600000	14400000	25	0.9	CRC89			0.06	I	No		62.6
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	62.6	NC	2090	175	--	16000000	17300000	25	1	CRC89			0.06	I	No		62.6
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	104	NC	3480	385	Yes (10000)	45600000	28700000	25					0.1	I	No		104

Resident Vapor Intrusion Risk

Output generated 21JUL2020:10:31:16

Chemical	CAS Number	Site Sub-Slab and Exterior Soil Gas Concentration C_{sg} ($\mu g/m^3$)	Site Indoor Air Concentration $C_{i,a}$ ($\mu g/m^3$)	VI Carcinogenic Risk CDI ($\mu g/m^3$)	**VI Carcinogenic Risk CR**	VI Hazard CDI (mg/m^3)	**VI Hazard HQ**	IUR $(ug/m^3)^{-1}$	**IUR Ref**	Chronic RfC (mg/m^3)	**RfC Ref**	**Temperature (°C) for Groundwater Vapor Concentration**	**Mutagen?**
Acetone	67-64-1	385	11.6	4.11		0.0111	0.000359			30.9	ATSDR	25	No
Benzene	71-43-2	2.65	0.0795	0.0283	0.000000221	0.0000762	0.00254	0.0000078	I	0.03	IRIS	25	No
Cyclohexane	110-82-7	4.41	0.132	0.0471		0.000127	0.0000211			6	IRIS	25	No
Ethylbenzene	100-41-4	4.73	0.142	0.0505	0.000000126	0.000136	0.000136	0.0000025	C	1	IRIS	25	No
Heptane, N-	142-82-5	7.87	0.236	0.0841		0.000226	0.000566			0.4	PPRTV	25	No
Hexane, N-	110-54-3	29.6	0.888	0.316		0.000852	0.00122			0.7	IRIS	25	No
Hexanone, 2-	591-78-6	13.8	0.414	0.147		0.000397	0.0132			0.03	IRIS	25	No
Isopropanol	67-63-0	15.1	0.453	0.161		0.000434	0.00217			0.2	PPRTV	25	No
Methyl Ethyl Ketone (2-Butanone)	78-93-3	25.3	0.759	0.27		0.000728	0.000146			5	IRIS	25	No
Naphthalene	91-20-3	3.15	0.0945	0.0337	0.00000114	0.0000906	0.0302	0.000034	C	0.003	IRIS	25	No
Tetrachloroethylene	127-18-4	22.5	0.675	0.24	6.25E-08	0.000647	0.0162	0.00000026	I	0.04	IRIS	25	No
Toluene	108-88-3	129	3.87	1.38		0.00371	0.000742			5	IRIS	25	No
Trichloroethane, 1,1,1-	71-55-6	10.5	0.315	0.112		0.000302	0.0000604			5	IRIS	25	No
Trichlorofluoromethane	75-69-4	3.82										25	No
Trimethylbenzene, 1,2,4-	95-63-6	5.36	0.161	0.0573		0.000154	0.00257			0.06	IRIS	25	No
Trimethylbenzene, 1,3,5-	108-67-8	3.1	0.093	0.0331		0.0000892	0.00149			0.06	IRIS	25	No
Xylenes	1330-20-7	63.9	1.92	0.683		0.00184	0.0184			0.1	IRIS	25	No
**Sum*					*1.55E-06*		*0.09*						

Site-specific VISL Results
Resident Equation Inputs

*** Inputted values different from Resident defaults are highlighted.**
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Variable	Resident Air Default Value	Form-input Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
ED_{res} (exposure duration) years	26	26
ED_{0-2} (mutagenic exposure duration first phase) years	2	2
ED_{2-6} (mutagenic exposure duration second phase) years	4	4
ED_{6-16} (mutagenic exposure duration third phase) years	10	10
ED_{16-26} (mutagenic exposure duration fourth phase) years	10	10
EF_{res} (exposure frequency) days/year	350	350
EF_{0-2} (mutagenic exposure frequency first phase) days/year	350	350
EF_{2-6} (mutagenic exposure frequency second phase) days/year	350	350
EF_{6-16} (mutagenic exposure frequency third phase) days/year	350	350
EF_{16-26} (mutagenic exposure frequency fourth phase) days/year	350	350
ET_{res} (exposure time) hours/day	24	24
ET_{0-2} (mutagenic exposure time first phase) hours/day	24	24
ET_{2-6} (mutagenic exposure time second phase) hours/day	24	24
ET_{6-16} (mutagenic exposure time third phase) hours/day	24	24
ET_{16-26} (mutagenic exposure time fourth phase) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) years	70	70
TR (target risk) unitless	0.000001	0.000001

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? (C_{vp} > $C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? (C_{hc} > $C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-06 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=1) C_{gw},Target ($\mu g/L$)	Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp} (25 °C) ($\mu g/m^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu g/m^3$)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR ($\mu g/m^3$)$^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{ia,c}$ ($\mu g/m^3$)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ ($\mu g/m^3$)
Acetone	67-64-1	Yes	Yes	Yes	Yes	32200	NC	1070000	22500000	--	723000000	1430000000	25	2.5	CRC89			30.9	A	No		32200
Chloromethane	74-87-3	Yes	Yes	Yes	Yes	93.9	NC	3130	260	--	11700000000	1920000000	25	8.1	CRC89			0.09	I	No		93.9
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	0.0826	CA	2.75	4.59	--	586000	558000	25	0.9	CRC89	0.000034	C	0.003	I	No	0.0826	3.13
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	10.8	CA	360	14.9	No (5)	165000000	149000000	25			0.00000026	I	0.04	I	No	10.8	41.7
Trichlorofluoromethane	75-69-4	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info						5930000000	4360000000	25							No		

Resident Vapor Intrusion Risk

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Chemical	**CAS Number**	Site Indoor Air Concentration $C_{i,a}$ ($\mu g/m^3$)	VI Carcinogenic Risk CDI ($\mu g/m^3$)	**VI Carcinogenic Risk CR**	VI Hazard CDI (mg/m^3)	**VI Hazard HQ**	IUR $(ug/m^3)^{-1}$	**IUR Ref**	Chronic RfC (mg/m^3)	**RfC Ref**	**Temperature (℃) for Groundwater Vapor Concentration**	**Mutagen?**
Acetone	67-64-1	16.1	5.73		0.0154	0.0005			30.9	ATSDR	25	No
Chloromethane	74-87-3	1.16	0.413		0.00111	0.0124			0.09	IRIS	25	No
Naphthalene	91-20-3	1.31	0.467	0.0000159	0.00126	0.419	0.000034	C	0.003	IRIS	25	No
Tetrachloroethylene	127-18-4	3.39	1.21	0.000000314	0.00325	0.0813	0.00000026	I	0.04	IRIS	25	No
Trichlorofluoromethane	75-69-4	3.6									25	No
**Sum*				*0.0000162*		*0.513*						