

PHASE II SUBSURFACE INVESTIGATION REPORT

MULTI-FAMILY APARTMENT BUILDING AND COMMERCIAL PARKING LOT

> 8914 14[™] AVENUE SOUTH SEATTLE, WASHINGTON 98108

> ATC PROJECT NO. 282EM00370

JULY 22, 2021

Prepared by:

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Ms. Laurie Olson Capital Investments Manager City of Seattle, Office of Housing 700 5th Avenue, Suite 5700 Seattle, Washington 98104



July 22, 2021

Ms. Laurie Olson Capital Investments Manager City of Seattle, Office of Housing 700 5th Avenue, Suite 5700 Seattle, Washington 98104

RE: Phase II Subsurface Investigation Multi-Family Apartment Building And Commercial Parking Lot 8914 14th Avenue South Seattle, Washington ATC Project Number: 282EM00370

Dear Ms. Olson:

On behalf of City of Seattle, ATC Group Services LLC (ATC) has prepared this report describing soil and groundwater investigation activities performed at the Multi-Family Apartment Building And Commercial Parking Lot property located at 8914 14th Avenue South in Seattle, King County, Washington 98290 (Site). The investigation was performed based on historical use of the Site and several associated recognized environmental conditions (RECs) identified in ATC's 2021 Phase I Environmental Site Assessment of the Site.

The objective of this investigation was to characterize potential impacts to site soil and groundwater in accordance with the Model Toxics Control Act (MTCA) and its implementation regulations defined in Revised Code of Washington (RCW) Chapter 70.105D and Washington Administrative Code (WAC) Chapter 173-340.

If you have questions, regarding the information presented in this report, or if you need additional information, please do not hesitate to contact us at (206) 781-1449.

Sincerely, ATC Group Services

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1.0 INTRODUCTION

On June 15, 2021, ATC Group Services LLC (ATC) conducted a Phase II Subsurface Investigation by completing a specific scope of work at the Site. The investigation was performed to assess several recognized environmental conditions (RECs) identified in ATC's 2021 Phase I Environmental Site Assessment (ESA) of the Site including the potential impacts from localized historical Site uses.

The investigation included the advancement of five (5) soil borings designated as SB-1 through SB-5 to total depths of twenty (20) feet below ground surface (bgs). Groundwater was encountered in each of the soil borings between approximately six (6) and ten (10) feet bgs.

The assessment activities were conducted to characterize the subsurface conditions in accordance with the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) and its implementation regulations defined in Chapter 70.105D of the Revised Code of Washington (RCW) and Chapter 173-340 of the Washington Administrative Code (WAC).

2.0 SITE DESCRIPTION AND BACKGROUND

The Site is located at 8914 14th Avenue South in Seattle, King County, Washington 98108. The Site Vicinity Map is provided as Figure 1. According to information obtained from the King County Tax Assessor, the Site is identified as the Assessor Parcel Number (APN) 788360-8611.

The Site is located in south Seattle in an area characterized by multi-family residential and commercial uses. Surface topography across the Site and in the surrounding area slopes to the east towards the Duwamish Waterway.

The Site consists of one parcel totaling approximately 0.28 acres and is currently developed with one twostory multi-family with a basement apartment building on the northern portion and an associated gravel parking lot on the southern portion of the Site. Reportedly, the apartment building was constructed in 1949 and consists of approximately 5,040 square feet (SF). The Site consists of six apartment units, including four one-bedroom/one-bathroom units and two two-bedroom/one-bathroom units. Reportedly the one and two bedroom apartments are approximately 780 SF. During the site reconnaissance, ATC accessed and inspected four of the six units. The inspected units were vacant. ATC notes that the first floor of the Site structure was utilized as a towing facility/office (Guardian Towing) and the gravel surface parking was utilized for their salvaged/wrecked automobiles.

According to historical sources, the Site was developed with a residential structure from prior to 1917 to circa 1930's, when the Site was developed with an additional residential structure on the northwestern portion, and two additional commercial structures on the northern and central portions. Review of the historical records indicated that the single-family residential structure, as well as the commercial building on the central portion were removed from the Site circa 1960s. The commercial structure on the northern portion of the Site (a former plumbing supplies company) appears to have been converted to the current multi-family apartment building over time from circa 1960s. The historical Site occupants included a plumbing supplies warehouse (to the north), a sign and wood working facility (in the central portion), and a single-family residential structure (in the southern portion). The central and southern portion of the Site use was changed to vacant or gravel parking lot over time. Historical Site operations did not involve manufacturing or generation of significant amounts of hazardous waste.

This assessment has revealed a recognized environmental condition in connection with the Site, as noted in the summary of report findings, opinions and conclusions below:

Review of the historical records indicated that the gravel surface parking area at the southern portion of the Site has been utilized for equipment storage, a wrecking/storage yard and towing facility from at least 2018

to present. Furthermore, review of the city directory listings indicated that the Site was utilized as auto sales facility (Kings Auto & Truck Sales/ Avilas Auto Sales) from sometime prior to 1996 to 2005. During site reconnaissance, ATC observed several (small and large) petroleum like stains on the gravel surface of the parking area. The presence of the staining on the gravel area and the length of time the Site was used as auto sales and a storage and towing facility represents a recognized environmental condition to the Site. ATC recommended a Phase II Investigation to investigate this concern.

At the request of City of Seattle, ATC conducted a subsurface investigation to evaluate the soil and groundwater conditions at the Site.

3.0 SITE INVESTIGATION

On June 15, 2021, a Phase II Subsurface Investigation was conducted at the Site. The investigation included the advancement of five (5) soil borings designated as SB-1 through SB-5 to the total depths of twenty (20) feet bgs.

Groundwater was encountered in each of the soil borings between approximately six (6) and ten (10) feet bgs.

3.1 Subsurface Utility Clearance and Site Health and Safety

Prior to initiating subsurface investigation activities, ATC evaluated the areas to be investigated for the presence of subsurface structures and utilities by contacting Washington One-Call (811), the public utility notification center. Additionally, ATC subcontracted CNI Locates, Ltd. (CNI) Of Bonney Lake, Washington to perform additional on Site utility location.

A site-specific health and safety plan was developed for this project in accordance with Occupational Safety and Health Administration (OSHA) and state regulations and implemented during the field investigation.

3.2 Phase II Subsurface Investigation – June 15, 2021

On June 15, 2021, ATC conducted a Phase II subsurface investigation by advancement of five (5) soil borings (SB-1 through SB-5) to total depths of twenty (20) feet bgs to assess the soil and groundwater conditions at the Site. Environmental Services Northwest, Inc. (ESN) of Olympia, Washington advanced the five (5) soil borings utilizing a truck-mounted direct push geo-probe (DPT) rig.

- One (1) soil boring was advanced in the northeast corner of the Site to evaluate soil and groundwater conditions in this area.
- One (1) soil boring was advanced at the western boundary of the Site to evaluate soil and groundwater conditions in this area.
- One (1) soil boring was advanced in the center of the Site to evaluate soil and groundwater conditions in this area.
- One (1) soil boring was advanced at the eastern boundary of the Site to evaluate soil and groundwater conditions in this area.
- One (1) soil boring was advanced at the south western corner of the Site to evaluate soil and groundwater conditions in this area.
- Five (5) groundwater samples were collected and submitted for laboratory analysis.

During drilling of the five (5) soil borings, six discrete soil samples were collected from select depths and were submitted for laboratory analysis. Two soil samples were collected from soil boring SB-1 for laboratory analysis. Only one soil sample was collected from the remaining four soil borings (SB-2 through SB-5).

In addition, five (5) grab groundwater samples (SB-1, SB-2, SB-3, SB-4, and SB-5) were collected from the soil borings using temporary well points. All five groundwater samples were submitted to the laboratory for analysis.

The soil boring locations are shown on Figure 2.

4.0 METHODS OF INVESTIGATION

4.1 Soil Sampling

Oversight of the drilling and sampling activities was performed by qualified ATC field geologists. All reusable soil sampling equipment was cleaned with a Liquinox wash, tap water rinse, and a distilled water rinse between each sampling attempt.

Soil samples obtained during DPT drilling operations were collected by hydraulically pushing a five (5) foot long core barrel sampler (Macrocore) containing a disposable acetate liner through the desired sample interval. After each sample interval was retrieved, the acetate liner was removed from the core barrel and cut to access soil for lithologic evaluation, field screening, and sample collection and preservation.

During the drilling activities, soil samples were collected at every five (5) foot interval and up to two (2) soil samples were collected from each soil boring; however, only one soil sample was submitted to the laboratory for analysis, with the exception of soil boring SB-1. Two soil samples were submitted for laboratory analysis, one from 1 foot bgs and one from 5 feet bgs. The selected soil samples were submitted for analysis based on the location of the soil borings, field observations, and PID readings. The remaining collected soil samples from each boring location were placed on hold at the laboratory for further analysis if the initial analytical results indicated impacts that would warrant further vertical delineation.

Soil recovery was generally good with a maximum recovery of five (5) feet from the Macrocore sampler. The soils were classified in general accordance with the Unified Soil Classification System (USCS). Field volatile organic compound (VOC) monitoring was performed by placing a portion of the sample in a sealable plastic bag and then mixing the contents to encourage volatilization of any organic compounds present. A photoionization detector (PID) was inserted into the bag to measure the organic vapor level, which was recorded on the boring logs (Appendix A).

Soil samples collected for VOC and gasoline analysis were field collected in accordance with Environmental Protection Agency (EPA) Method 5035A using a five (5) gram soil core sampler inserted into a T-handle plunger. Each core sample was placed into laboratory provided 40 milliliter (ml) glass VOA vials. Each sample consisted of at least two vials containing methanol as preservative. Soil samples collected for all other analyses, including; diesel and heavy oil-range petroleum hydrocarbons, and total metals, were submitted in laboratory prepared unpreserved capped glass jars.

Each sample jar or VOA vial was immediately labeled, bagged, placed in an iced cooler and entered onto a chain of custody pending delivery to the analytical laboratory.

The soil samples were named as follows; boring type (ie. Soil Boring [SB], followed by location designation number, followed by the depth of the collected soil sample, (ex; SB-1-5').

4.2 Groundwater Sampling

Groundwater samples were collected from borings SB-1, SB-2, SB-3, SB-4, and SB-5 on the day of drilling. Groundwater samples were collected via temporary well points constructed of high-density polyethylene (HDPE) tubing inserted through the drilling rods. The samples were extracted from the temporary well points into laboratory supplied containers using a peristaltic pump. After sample collection, the HDPE tubing was removed from each borehole and disposed and the boring was backfilled with bentonite chips. The groundwater samples were labeled and placed in a cooler on ice, entered onto chain of custody documentation pending delivery to the analytical laboratory.

The groundwater samples were named as follows; Boring type (ie. Soil Boring [SB], followed by location designation number, (ex; SB-1).

5.0 SOIL AND GROUNDWATER ANALYTICAL METHODS

5.1 Soil Analysis

Select soil samples were submitted for analysis at Fremont Analytical of Seattle, Washington, an Ecology accredited laboratory for one or more of the following laboratory analyses:

- Diesel and Heavy Oil by Northwest NWTPH-Dx/Dx Extended;
- Gasoline by Northwest NWTPH-Gx;
- Hexavalent Chromium by EPA Method 3500 Cr B;
- Total Metals by EPA Method 6020B;Total Mercury by EPA Method 7471;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260D; and
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270 (SIM).

ATC used the MTCA Method A Cleanup Levels for unrestricted use where published, and the Method B Cleanup Levels, if Method A Cleanup Levels were unavailable, to determine whether or not the soil analytical results meet the respective Ecology's cleanup level standards.

The laboratory analytical report for the soil analyses is included in Appendix B and the results are summarized on Tables 1, 3, and 5.

5.2 Groundwater Analysis

The groundwater samples were submitted for analyses at Fremont Analytical of Seattle, Washington, an Ecology accredited laboratory for one or more of the following laboratory analyses:

- Diesel and Heavy Oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx Extended,
- Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-Gx;
- Dissolved Metals by EPA Method 200.8;
- Dissolved Mercury by EPA Method 245.1;
- Hexavalent Chromium by SM 3500 Cr B;
- BTEX by EPA Method 8260D; and
- PAHs by EPA Method 8270 (SIM).

The laboratory analytical report for the groundwater analyses is included in Appendix B and the results are summarized on Tables 2, 4, and 6.

6.0 SUBSURFACE CHARACTERISTICS

6.1 Soil Lithology

Subsurface soils encountered during the advancement of soil borings predominantly consisted of medium to clay, silt, and sand sediments to the maximum depth explored of 20 feet bgs. Boring logs are presented in **Appendix A**.

6.2 Groundwater Characteristics

Groundwater was encountered in the soil borings between six (6) and ten (10) feet bgs.

7.0 INVESTIGATION RESULTS AND FINDINGS

ATC evaluated the field observations and the results of laboratory analyses of the soil and groundwater samples to develop the following findings pertinent to the investigation work steps described above.

7.1 Cleanup Levels and Points of Compliance

The cleanup levels and points of compliance (where the cleanup levels must be met) for each complete exposure pathway are described below:

Human health protection from drinking water – MTCA Method A or B cleanup levels for groundwater (whichever is lowest). The standard point of compliance is throughout the Site from any depth groundwater could potentially be used for drinking water purposes.

Human health protection from soil to groundwater (leaching) – MTCA Method A or B cleanup levels (whichever is lowest). Where available, the lowest MTCA Cleanup Levels were selected. The standard point of compliance for the MTCA Cleanup Levels is throughout the Site, including any depth where soil impacts could leach into groundwater.

Human health protection from direct soil contact (from the ground surface to 15 feet bgs). Where available, the lowest MTCA Method A or B cleanup levels were selected. The standard point of compliance for the MTCA Method A/B Cleanup Levels is throughout the Site within the upper 15 feet.

Human health protection from direct groundwater contact (from the ground surface to 15 feet bgs) – MTCA Method A or B cleanup levels (whichever is lowest) for groundwater. The standard point of compliance is throughout the Site, to depths of 15 feet bgs.

7.2 Soil Analytical Findings

A total of six (6) discrete soil samples (from SB-1 through SB-5) were selected for laboratory analysis during the subsurface investigation at the Site. The selected soil samples were submitted for analysis based on the location of the soil borings, field observations, and PID readings. These soil samples were submitted to the laboratory for various analysis, as indicated below.

Petroleum Hydrocarbons

Six (6) soil samples (SB-1-1', SB-1-5', SB-2-10', SB-3-1', SB-4-1', and SB-5-5') were collected from
the five soil borings for laboratory analysis for total petroleum hydrocarbons (TPH) as diesel and
heavy oil (TPH as diesel and TPH as oil) using Northwest Method NWTPH-Dx and TPH as gasoline
using Northwest Method NWTPH-Gx. Laboratory analysis indicated that diesel and heavy oil
petroleum hydrocarbons were not detected above the method reporting limits (MRLs) in any of the
soil samples analyzed by the laboratory, except for shallow soil sample SB-1-1'. Gasoline was not
detected above the MDL in any of the soil samples except soil sample SB-4 -1".

The laboratory analysis indicated that heavy oil and total petroleum hydrocarbons were detected in soil sample SB-1-1' at a concentrations of 3,190 mg/kg and 4,000 mg/kg, respectively. This

concentrations is above the Ecology MTCA Method A Cleanup Levels of 2,000 mg/kg for heavy oil and total petroleum hydrocarbons.

The laboratory analysis indicated that diesel range organics (kerosene) was detected in soil sample SB-1-1' at a concentration of 816 mg/kg, which is below the Ecology MTCA Method A Cleanup levels of 2,000 mg/kg for diesel. No other detections of diesel range organics were reported.

The laboratory analysis indicated that gasoline range organics were detected in soil sample SB-4-1' at a concentration of 20.8 mg/kg. This concentration is below the Ecology MTCA Method A Cleanup level of 100 mg/kg for gasoline mixtures without benzene and the total of ethylbenzene, toluene and xylene (BTEX) are less than 1% of the gasoline mixture, or 30 mg/kg for all other gasoline mixtures. ATC notes that VOCs (including BTEX) were not quantified above the MDL for each of these compounds, therefore based on the data ATC considers (100 mg/kg) as the cleanup level.

None of the soil samples analyzed at the laboratory for BTEX compounds were found to have concentrations above the MDL of each of these compounds.

RCRA Metals

Laboratory analysis for RCRA 8 metals was performed on the six (6) soil samples (SB-1-1', SB-1-5', SB-2-10', SB-3-1', SB-4-1', and SB-5-5'). RCRA 8 metals were detected above the MRLs though not at concentrations above their respective Ecology MTCA Method A/B Cleanup levels in any of soil samples submitted for laboratory analysis. The concentrations of the metals detected above the MRLs, though below MTCA Method A/B Cleanup levels, were reported as: arsenic ranging from 2.80 to 8.50 mg/kg, lead ranging from 3.72 to 90.3 mg/kg, barium ranging from 36.7 to 107 mg/kg, cadmium ranging from 0.296 mg/kg to 0.316 mg/kg, total chromium ranging from 15.6 to 38.1 mg/kg, silver was detected in only one sample at 0.818, and selenium ranging from 0.935 to 2.44 mg/kg. Mercury was not detected above MRLs in any of the soil samples. The MTCA Method A Cleanup Levels for arsenic is 20 mg/kg and for lead is 250 mg/kg. The MTCA Method A Cleanup Levels for mercury is 2 mg/kg. No MTCA Method A or B Cleanup Levels are established for total chromium, however the MTCA Method A Cleanup Levels for chromium (III) is 2,000 mg/kg and for chromium (VI) is 19 mg/kg. Select soil samples were further re-analyzed for chromium (VI), and analytical results indicated that chromium (VI) was not detected above the MRLs. No MTCA Method A Cleanup Levels have been established for barium, selenium and silver, however the MTCA Method B Cleanup Levels for barium and selenium are 16,000 mg/kg and 400 mg/kg, respectively.

Volatile Organic Compounds

 Six (6) soil samples (SB-1-1', SB-1-5', SB-2-10', SB-3-1', SB-4-1', and SB-5-5') were analyzed for BTEX. Laboratory analytical results indicate that BTEX constituents were not detected above the MRLs in any of the soil samples collected.

Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) and PAHs

cPAHs were assessed in six (6) select soil samples. Laboratory analytical results indicate that the cPAHs were not detected above the MRLs for samples SB-1-5', SB-2-10', SB-3-1', SB-4-1', and SB-5-5'. Soil sample SB-1-1' was analyzed by the laboratory and benz(a)-anthracene at 0.214 mg/kg, chrysene at 0.486 mg/kg, benzo(b)-fluoranthene at 0.234 mg/kg, benzo(k)-fluoranthene at 0.95 mg/kg, benzo(a)pyrene 0.277 mg/kg, indeno(1,2,3-cd)-pyrene 0.117 mg/kg, and dibenz(a,h)-anthracene at 0.0799 mg/kg were above MDLs. The total cPAH concentration was calculated in accordance to WAC173-340-708(e). The calculated carcinogenic TEF for Sample SB-1-1' was 0.37 mg/kg, which is above the MTCA Method A cleanup level of 0.1 mg/kg.

The total cPAH concentration was calculated in accordance to WAC173-340-708(e), which requires that the seven (7) known cPAH compounds: benzo[a]pyrene, benzo[a]anthracene, benzo[a]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene, are treated as a single hazardous substance. In order to consider those compounds with lesser concern, each concentration reported in the laboratory analytical report is modified by the toxicity equivalency factors (TEFs) as listed on Table 708-2 in the MTCA Cleanup Regulation and then summed for a total concentration. The modified total concentration is then compared to the MTCA Method A cleanup level for benzo[a]pyrene, which is 0.1 mg/kg for unrestricted land uses. When an analytical result was reported below the laboratory MRLs, MRLs were used as the concentration value, to ensure the most conservative total concentration. The modified total concentration are detailed in **Table 8**. The TEFs listed in Table 708-2 in the MTCA Cleanup Regulation are summarized below:

Table 708-2

Toxicity Equivalency Factors for

CAS Number	Hazardous Substance	TEF(unitless)
50-32-08	benzo[a]pyrene	1
56-55-3	benzo[a]anthracene	0.1
205-99-2	benzo[b]fluoranthene	0.1
207-08-9	benzo[k]fluoranthene	0.1
218-01-9	chrysene	0.01
53-70-3	dibenz[a,h]anthracene	0.1
193-39-5	indeno[1,2,3-cd]pyrene	0.1

Minimum Required cPAHs under WAC 173-340-708(e)

The Laboratory analytical report for the soil analysis is included in **Appendix B** and the results are summarized on **Tables 1, 3**, and **5**.

7.3 Groundwater Analytical Findings

A total of five (5) groundwater samples from the temporary well points (SB-1, SB-2, SB-3, SB-4, and SB-5) were collected and analyzed for the following analysis.

Petroleum Hydrocarbons

 Five (5) grab groundwater samples were collected for laboratory analysis for TPH as diesel and heavy oil using Northwest Method NWTPH-Dx, and TPH as gasoline using Northwest Method NWTPH-Gx from SB-1, SB-2, SB-3, SB-4, and SB-5. Laboratory analysis indicated that petroleum hydrocarbons were not detected above the laboratory MRLs in any of the groundwater samples analyzed by the laboratory with the exception that TPH as heavy oil was detected in SB-1 at 751 µg/L, SB-2 at 293 µg/L, and SB-3 at 676 µg/L. The concentrations of TPH as oil in the groundwater samples collected in SB-1 and SB-3 are above the Ecology MTCA Method A Cleanup level of 500 µg/L for TPH as oil in groundwater.

Total RCRA 8 Metals

Laboratory analysis for RCRA 8 metals was performed on the five (5) groundwater samples (SB-1, SB-2, SB-3, SB-4, and SB-5). Total arsenic ranging from 21.7 to 61.3 μg/L was detected in all five (5) groundwater samples. The detections exceed the MTCA Method A Cleanup Level for arsenic of 5 μg/L in all five groundwater samples. The concentrations of the remaining metals

detected above the MRLs, though below MTCA Method A/B Cleanup levels, were reported as: lead ranging from 3.20 to 6.05 μ g/L, barium ranging from 77.6 to 694 μ g/L, cadmium ranging from 0.516 to 1.07 μ g/L, total chromium ranging from 8.99 to 39.5 μ g/L, mercury was detected ranging from 0.194 to 1.20 μ g/L and selenium ranging from 7.22 to 13.8 μ g/L. SB-5 was further re-analyzed for chromium (VI), and analytical results indicated that chromium (VI) was detected above the MTCA Method A Cleanup at a concentration of 77.6 μ g/L. Silver was not detected above MRLs in any of the groundwater samples. The MTCA Method A Cleanup Level for lead is 15 μ g/L. The MTCA Method A Cleanup Level for mercury is 2 μ g/L and chromium is 50 μ g/L. No MTCA Method A Cleanup Levels have been established for barium, selenium and silver, however the MTCA Method B Cleanup Levels for barium, selenium and silver are 3,200 μ g/L, 80 μ g/L, and 80 μ g/L, respectively.

Dissolved RCRA 8 Metals

Laboratory analysis for dissolved RCRA 8 metals was performed on the five (5) groundwater samples (SB-1, SB-2, SB-3, SB-4, and SB-5). Dissolved arsenic was detected in the five (5) groundwater samples ranging from 3.77 to 38.3 μ g/L. Only the detected concentrations of 14.9 μ g/L (sample SB-3) and 38.3 μ g/L (sample SB-5) exceed the MTCA Method A Cleanup Level for arsenic of 5 μ g/. Dissolved lead was present in sample SB-5 at a concentration of 18.2 μ g/L. This concentration exceeds the MTCA Method A Cleanup Level for lead of 15 μ g/L. Dissolved chromium was present in sample SB-5 at a concentration exceeds the MTCA Method A Cleanup Level for lead of 15 μ g/L. Dissolved chromium was present in sample SB-5 at a concentration exceeds the MTCA Method A Cleanup Level for lead of 15 μ g/L. Dissolved chromium was present in sample SB-5 at a concentration exceeds the MTCA Method A Cleanup Level for lead of 15 μ g/L. Dissolved chromium was present in sample SB-5 at a concentration of 57.1 μ g/L. This detected concentration exceeds the MTCA Method A Cleanup Level for chromium of 50 μ g/L.

The concentrations of the metals detected above the MRLs, though below MTCA Method A/B Cleanup levels, were reported as: barium ranging from 4.81 to 432 μ g/L, cadmium ranging from 0.868 μ g/L, mercury was detected in only one sample (sample SB-5) at a concentration of 1.32 μ g/L and selenium was also only detected in sample SB-5 at a concentration of 9.02 μ g/L. Silver was not detected above MRLs in any of the groundwater samples. The MTCA Method A Cleanup Level for mercury is 2 μ g/L and 50 μ g/L for chromium. No MTCA Method A Cleanup Levels have been established for barium, selenium and silver, however the MTCA Method B Cleanup Levels for barium, selenium and silver are 3,200 μ g/L, 80 μ g/L, and 80 μ g/L, respectively.

Volatile Organic Compounds

• BTEX were assessed in all five (5) groundwater samples (SB-1, SB-2, SB-3, SB-4, and SB-5) collected. Laboratory analytical results indicate that BTEX constituents were not detected above the MRLs in any of the groundwater samples collected at the Site.

Polycyclic Aromatic Hydrocarbons (PAHs)

Groundwater samples were collected from SB-1, SB-2, SB-3, SB-4, and SB-5 and were analyzed for PAHs. No PAHs were detected in the samples above the method reporting limits in SB-2, SB-3, SB-4, and SB-5. Acenaphthene was present at 0.126 µg/L in groundwater sample SB-1, which is below the MTCA Method A Cleanup Level of 960 µg/L for groundwater.

The total TEQ carcinogenic PAH concentrations were calculated in accordance to WAC173-340-708(e). The calculated carcinogenic TEQ for the samples were between 0.074 μ g/L and 0.075 μ g/L, which are below the MTCA Method A cleanup level of 0.1 μ g/L.

The laboratory analytical report for the groundwater analysis is included in **Appendix B** and the results are summarized on **Tables 2**, **4**, and **6**.

8.0 CONCLUSIONS AND RECOMMENDATIONS

On June 15, 2021, ATC conducted a Phase II Subsurface Investigation by completing a specific scope of work at the Site. The investigation included the advancement of five (5) soil borings designated as SB-1 through SB-5 to the total depths of 15 (15) feet bgs (SB-1) to 20 feet bgs (SB-2 through SB-5). Groundwater was encountered at the advanced soil borings (SB-1 through SB-5) at approximately six (6) to ten (10) feet bgs.

All analytes that were detected in the soil samples were below applicable MTCA Method A or B Cleanup Levels with the exception of:

- The laboratory analysis indicated that heavy oil was detected in soil sample SB-1-1' at a concentration of 3,190 mg/kg. This concentrations is above the Ecology MTCA Method A Cleanup Levels of 2,000 mg/kg for heavy oil.
- The laboratory analysis indicated that TPH was detected in soil sample SB-1-1' at a concentration of 4,000 mg/kg. This concentrations is above the Ecology MTCA Method A Cleanup Levels of 2,000 mg/kg for heavy oil.
- Soil sample SB-1-1' contained a calculated TEQ concentration for carcinogenic PAHs of 0.37 mg/kg. This is above the Ecology MTCA Method A Cleanup level of 0.1 mg/kg for unrestricted land use.

All analytes that were detected in the groundwater samples were below applicable MTCA Method A or B Clean-up Levels with the exception of:

- The laboratory analysis indicated that groundwater collected in SB-1 and SB-3 contained concentrations of heavy oil and TPH at concentrations above the Ecology MTCA Method A Cleanup Levels. This concentrations is above the Ecology MTCA Method A Cleanup Levels of 500 µg/L for TPH and heavy oil.
- Total arsenic ranging from 21.7 to 61.3 μg/L exceeds, the MTCA Method A Cleanup Levels for arsenic of 5 μg/L in all five groundwater samples.
- Dissolved arsenic ranging from 3.77 to 38.3 µg/L exceeds, the MTCA Method A Cleanup Levels for arsenic of 5 µg/L in groundwater samples SB-3 and SB-5. Dissolved lead was present in SB-5 at 18.2 µg/L exceeds, the MTCA Method A Cleanup Levels for lead of 15 µg/L. Dissolved chromium was present in SB-5 at 57.1 µg/L exceeds, the MTCA Method A Cleanup Levels for chromium of 50 µg/L. Also, total Chromium (VI) was present in SB-5 at 77.6 µg/L exceeds, the MTCA Method A Cleanup Levels for chromium of 50 µg/L.

ATC recommends that the soil impacted with TPH as oil and cPAHs in the area of soil sample SB1-1' be excavated and properly disposed and the excavation backfilled with clean soil. The surface should be repaired to like conditions.

In regards to the groundwater impacts from arsenic, lead, chromium, and TPH, ATC recommends conducting further Phase II investigation to further characterize the extent of these groundwater impacts. The additional investigation will include permanent groundwater monitoring wells to allow for the collection of seasonal data for chemical concentrations and groundwater flow direction.

9.0 LIMITATIONS AND RELIANCE

This report was prepared in accordance with the scope of work outlined in ATC's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of City of Seattle, and their affiliates, joint ventures, investors, lenders, and assigns. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to ATC. To the extent this report is based on information provided to ATC by third parties, ATC may have made efforts to verify this third party information, but ATC cannot guarantee the completeness or accuracy of this third party information. The opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by ATC.

10.0 CERTIFICATION

The information provided in this Phase II Subsurface Investigation Report for the Multi-Family Apartment Building and Commercial Parking Lot Site located at 8914 14th Avenue in Seattle, King County, Washington (Site) was prepared under the supervision of a State of Washington Licensed Geologist.

A professional geologist's certification of conditions comprises a declaration of his or her professional judgement. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations and ordinances.

We appreciate the opportunity to be of service in this matter. If you have questions regarding this report, please contact us at (206) 781-1449.

Sincerely, ATC Group Services

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Kelly a Kline

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TABLES

		Sample Depth Interval		Total Petroleum Hydrocarbons ¹ in mg/kg									
Boring ID	Sample ID	(feet below ground surface)	Sample Date	Gasoline	Diesel (Kerosene)	Diesel (Fuel Oil)	Heavy Oil	Total Petroleum Hydrocarbons					
SB-1	SB1-1'	1	6/15/2021	<6.17	816	<48.0	3,190	4,000					
SB-1	SB1-5'	5	6/15/2021	<66.4	NA	<67.9	<136	<204					
SB-2	SB2-10'	10	6/15/2021	<6.93	NA	<60.9	<122	<183					
SB-3	SB3-1'	1	6/15/2021	<6.55	NA	<46.2	<92.5	<139					
SB-4	SB4-1'	1	6/15/2021	20.8	NA	<47.6	<95.2	<143					
SB-5	SB5-5'	5	6/15/2021	<8.74	NA	<73.2	<146	<220					
MTCA-Method A Cleanup Levels for Unrestricted Land Uses			100/30 ²	2,000	2,000	2,000	2,000						

Notes:

mg/kg = milligram per kilogram

MTCA - Washington State Department of Ecology Model Toxics Control Act

< = Less than Laboratory Reporting Limit

BOLD = detected above laboratory reporting limits

BOLD and Highlighted in grey = detected above MTCA Method A Cleanup Levels

1 = Analytical results by gas chromatography and mass spectrometry by Ecology Methods NWTPH-Gx, and/or NWTPH-Dx/Extended

2 = 100 mg/kg cleanup level for gasoline mixtures without benzene or BTEX concentration less than 1% of gasoline mixture; 30 mg/kg for all other gasoline mixtures

All analytical results reported in milligrams per kilogram (mg/kg) equivalent to parts per million (ppm)

NA = Not Analyzed

Table 2 - Summary of Groundwater Analytical Results - Total Petroleum Hydrocarbons

City of Seattle - Multi-Family Residential

8914 14th Avenue South

Seattle, Washington

ATC Project No. 282EM00370

Boring ID/Sample ID	Boring Depth (feet	Sample Date		Total Petroleum	Hydrocarbons ¹ in μg/L	
ş	below ground surface)		Gasoline	Diesel (Fuel Oil)	Heavy Oil	Total Petroleum Hydrocarbons
6D 4	45	6/45/2024	<50.0	<00.4	764	764
5B-1	15	6/15/2021	<50.0	<99.4	751	751
SB-2	20	6/15/2021	<50.0	<99.3	293	293
SB-3	20	6/15/2021	<50.0	<99.5	676	746
SB-4	20	6/15/2021	<50.0	<98.8	<98.8	<198
SB-5	20	6/15/2021	<50.0	<98.9	<98.9	<198
M	TCA-Method A Cleanup L	evel	800/1,000 ²	500	500	500

 μ g/L = microgram per liter

MTCA - Washington State Department of Ecology Model Toxics Control Act

< = Less than Laboratory Reporting Limit

BOLD = detected above laboratory reporting limits

BOLD and Highlighted in grey = detected above MTCA Method A Cleanup Levels

1 = Analytical results by gas chromatography and mass spectrometry by Ecology Methods NWTPH-Gx and/or NWTPH-Dx/Extended

2 = 800 µg/L cleanup level if benzene present in groundwater; 1,000 µg/L cleanup level when benzene is not detected in groundwater

All analytical results reported in micrograms per liter (µg/L) equivalent to parts per billion (ppb)

Table 3 - Summary of Soil Analytical Results - RCRA 8 Metals City of Seattle - Multi-Family Residential 8914 14th Avenue South Seattle, Washington ATC Project No. 282EM00370

		Sample Depth			Total Metals ¹ in mg/kg											
Boring ID	Sample ID	below ground surface)	Sample Date	Arsenic	Lead	Mercury	Barium	Cadmium	Total Chromium	Selenium	Silver					
SB-1	SB1-1'	1	6/15/2021	4.14	90.3	<0.261	53.5	0.296	18.0	0.981	0.818					
SB-1	SB1-5'	5	6/15/2021	2.80	3.72	<0.354	36.7	<0.232	15.6	0.946	<0.174					
SB-2	SB2-10'	10	6/15/2021	4.88	4.02	< 0.330	48.8	<0.218	19.0	1.85	<0.164					
SB-3	SB3-1'	1	6/15/2021	5.45	16.9	<0.244	75.9	<0.173	38.1	1.22	<0.130					
SB-4	SB4-1'	1	6/15/2021	4.91	4.05	<0.238	90.1	<0.175	28.0	0.935	<0.132					
SB-5	SB5-5'	5	6/15/2021	8.50	18.6	<0.375	107	0.316	30.8	2.44	<0.181					
MTCA - Me	thod A Cleanup	Levels for Unrest	ricted Land Uses	20	250	2	NAV	2	2,000/19 ²	NAV	NAV					
MTCA-	Method B Clean Unrestrie	up Levels, Non Ca cted Land Uses	rcinogen for	24	NAV	NAV	16,000	80	120,000/240 ³	400	400					

Notes:

mg/kg = millgram per kilogram

BOLD = detected above laboratory reporting limits

NAV = Not Available

MTCA - Washington State Department of Ecology Model Toxics Control Act

< = Less than Laboratory Reporting Limit

1 = Analytical results by inductively coupled plasma and mass spectrometry by United States Environmental Protection Agency (EPA) Method 6020 or cold-vapor atomic absorbtion by EPA Method 7471

2 = 2,000 mg/kg cleanup level for Chromium III and 19 mg/kg cleanup level for Chromium VI

3 = 120,000 mg/kg cleanup level for Chromium III and 240 mg/kg cleanup level for Chromium VI

All analytical results reported in milligrams per kilogram (mg/kg) equivalent to parts per million (ppm)

Table 4 - Summary of Groundwater Analytical Results - Total RCRA 8 MetalsCity of Seattle - Multi-Family Residential8914 14th Avenue SouthSeattle, WashingtonATC Project No. 282EM00370

						Т	otal Metals	(µg/L)			
Boring ID/Sample ID	Boring Depth	Sample Date	Arsenic	Lead	Mercury	Barium	Cadmium	Total Chromium	Hexavalent Chromium	Selenium	Silver
SB-1	15	6/15/2021	26.8	3.20	0.174	77.6	0.840	8.99		<5.00	<0.250
SB-2	20	6/15/2021	21.7	3.96	0.194	179	<0.200	9.25		<5.00	<0.250
SB-3	20	6/15/2021	61.3	4.33	1.20	694	0.700	17.9		13.7	<0.250
SB-4	20	6/15/2021	41.9	5.29	0.436	605	0.516	39.5		13.8	<0.250
SB-5	20	6/15/2021	52.4	6.05	0.983	620	1.07	24.1	77.6	7.22	<0.250
MTCA - Method	l A Cleanup	b Level	5	15	2	NAV	5	50	50	NAV	NAV
MTCA-Method B Cleanup Levels			4.8	NAV	NAV	3,200	8	24,000/48 ¹	24,000/48 ¹	80	80

µg/L = microgram per liter

All analytical results reported in micrograms per liter (µg/L) equivalent to parts per billion (ppb)

< = Less than Laboratory Reporting Limit

BOLD = detected above laboratory reporting limits

BOLD and Highlighted in grey = detected above MTCA Method A Cleanup Levels

MTCA - Washington State Department of Ecology Model Toxics Control Act

NAV = Not Available

 $1 = 24,000 \mu g/L$ cleanup level for Chromium III and $48 \mu g/L$ cleanup level for Chromium VI

Table 5 - Summary of Groundwater Analytical Results - Dissolved RCRA 8 MetalsCity of Seattle - Multi-Family Residential8914 14th Avenue SouthSeattle, WashingtonATC Project No. 282EM00370

	Boring Depth (feet					Diss	olved Metals (µ	ıg/L)		
Boring ID/Sample ID	below ground surface)	Sample Date	Arsenic	Arsenic Lead M		Barium	Cadmium	Chromium	Selenium	Silver
SB-1	15	6/15/2021	4.94	<0.500	<0 100	4.81	<0 125	1.20	<1.90	<0.350
SB-2	20	6/15/2021	3.77	< 0.500	<0.100	27.4	<0.125	<0.750	<1.90	< 0.350
SB-3	20	6/15/2021	14.9	<0.500	<0.100	15.8	<0.125	0.855	<1.90	<0.350
SB-4	20	6/15/2021	4.79	<0.500	<0.100	7.75	<0.125	<0.750	<1.90	<0.350
SB-5	20	6/15/2021	38.3	18.2	1.32	432	0.868	57.1	9.02	<0.350
MTCA - M	5	15	2	NAV	5	50	NAV	NAV		
MTCA-Met	4.8	NAV	NAV	3,200	8	24,000/48 ¹	80	80		

µg/L = microgram per liter

All analytical results reported in micrograms per liter (µg/L) equivalent to parts per billion (ppb)

< = Less than Laboratory Reporting Limit

MTCA - Washington State Department of Ecology Model Toxics Control Act

BOLD = detected above laboratory reporting limits

BOLD and Highlighted in grey = detected above MTCA Method A Cleanup Levels

-- = Not Analyzed

NAV = Not Available

 $1 = 24,000 \ \mu g/L$ cleanup level for Chromium III and $48 \ \mu g/L$ cleanup level for Chromium VI

Table 6 - Summary of Soil Analytical Results - Benzene, Toluene, Ethylbenzene, and XyleneCity of Seattle - Multi-Family Residential8914 14th Avenue SouthSeattle, WashingtonATC Project No. 282EM00370

		Semale Denth Interval			VOCs	(mg/kg) ¹			
Boring ID	Sample ID	(feet below ground surface)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes		
		1	6/45/0004	<0.0047	<0.0070	<0.0200	40.0017		
3B-1	201-1		0/15/2021	<0.0247	<0.0370	<0.0308	<0.0617		
SB-1	SB1-5'	5	6/15/2021	<0.0531	<0.0797	<0.0664	<0.133		
SB-2	SB2-10'	10	6/15/2021	<0.0277	<0.0416	< 0.0346	<0.0693		
SB-3	SB3-1'	1	6/15/2021	<0.0262	<0.0393	<0.0327	<0.0655		
SB-4	SB4-1'	1	6/15/2021	<0.0227	<0.0340	<0.0283	<0.0567		
SB-5	SB5-5'	5	6/15/2021	<0.0350	<0.0525	<0.0437	<0.0874		
MTCA-N	lethod A Clea	nup Levels for Unrestrict	0.03	7	6	9			
МТС	A-Method B C Unו	Cleanup Levels, Non Carci restricted Land Uses	320	6,400	8,000	16,000			

Notes:

mg/kg = millgram per kilogram

NAV = Not Available

< = Less than Laboratory Reporting Limit

MTCA - Washington State Department of Ecology Model Toxics Control Act

1 = Analytical results by gas chromatography and mass spectrometry by United States Environmental Protection Agency Method

8270 Selected Ion Monitoring

All analytical results reported milligrams per kilogram (mg/kg); equivalent to parts per million (ppm)

2 = Tetrachloroethene (Tetrachloroethylene, perchloroethylene)

3 = Trichloroethene (Trichloroethylene)

MTBE = methyl tertiary-butyl ether

Only select VOCs are listed in this table. For full list of VOC analytes please see associated lab report.

Table 7 - Summary of Groundwater Analytical Results - Benzene, Toluene, Ethylbenzene, and XyleneCity of Seattle - Multi-Family Residential8914 14th Avenue SouthSeattle, WashingtonATC Project No. 282EM00370

Boring ID/	Boring Depth (feet	Sample	VOCs (µg/L) ¹							
Sample ID	below ground	Date	Benzene	Toluene	Ethylbenzene	Xylenes				
SB-1	15	6/15/2021	<0.440	<0.750	<0.400	<1.00				
SB-2	20	6/15/2021	<0.440	<0.750	<0.400	<1.00				
SB-3	20	6/15/2021	<0.440	<0.750	<0.400	<1.00				
SB-4	20	6/15/2021	<0.440	<0.750	<0.400	<1.00				
SB-5	20	6/15/2021	<0.440	<0.750	<0.400	<1.00				
MTCA	A - Method A Cleanup L	evel	5	1,000	700	1,000				

Notes:

 μ g/L = microgram per liter

BOLD = detected above laboratory reporting limits

BOLD and Highlighted in grey = detected above MTCA Method A Cleanup Levels

MTCA - Washington State Department of Ecology Model Toxics Control Act

< = Less than Laboratory Reporting Limit</p>

1 = Analytical results by gas chromatography and mass spectrometry by United States

Environmental Protection Agency Method 8260C

All analytical results reported in micrograms per liter (μ g/L) equivalent to parts per billion (ppb)

Table 8 - Summary of Soil Analytical Results - Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) City of Seattle - Multi-Family Residential 8914 14th Avenue South Seattle, Washington ATC Project No. 282EM00370

		Sample Depth		Carcinogenic Polyaromatic Hydrocarbons (cPAHs) ¹ in mg/kg										
Boring ID	Sample ID	Interval (feet below ground surface)	Sample Date	Benzo (a)- anthracene	Chrysene	Benzo(b)- fluoranthene	Benzo(k)- fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)- pyrene	Dibenz(a,h)- anthracene	Total cPAHs modified by TEFs ²			
SB-1	SB1-1'	1	6/15/2021	0.214	0.486	0.234	0.195	0.277	0.117	0.0799	0.37			
SB-1	SB1-5'	5	6/15/2021	<0.0254	<0.0508	<0.0254	<0.0254	<0.0254	<0.0508	<0.0508	0.04			
SB-2	SB2-10'	10	6/15/2021	<0.0286	<0.0573	<0.0286	<0.0286	<0.0286	<0.0573	<0.0573	0.05			
SB-3	SB3-1'	1	6/15/2021	<0.0193	<0.0386	<0.0193	<0.0193	<0.0193	< 0.0386	<0.0386	0.03			
SB-4	SB4-1'	1	6/15/2021	<0.0188	<0.0376	<0.0188	<0.0188	<0.0188	< 0.0376	<0.0376	0.03			
SB-5	SB5-5'	5	6/15/2021	<0.0275	<0.0550	<0.0275	<0.0275	<0.0275	<0.0550	<0.0550	0.05			
MTCA-Method A Cleanup Levels				0.1	NAV	NAV	NAV	0.1	NAV	NAV	0.1			

Notes:

mg/kg = millgram per kilogram

NAV = Cleanup level has not been established or researched

MTCA - Washington State Department of Ecology Model Toxics Control Act

BOLD = detected above laboratory reporting limits

< = Less than Laboratory Reporting Limit

1 = Polycyclic Aromatic Hydrocarbon (PAHs) analysis by EPA Method 8270-SIM. The sum of all detected carcinogenic PAHs must meet this cleanup level using the toxicity equivalency methodology in WAC 173-340-708(8).

The carcinogenic PAHs include benzo(a)pyrene, chrysene, dibenz(a)anthracene, indeno(1,2,3-cd)pyrene, benzo(k)flouranthene, benzo(a)anthracene, and benzo(b)flouranthene.

2 = Total cPAHs are modified by using Toxicity Equalivalency Factors (TEFs) per WAC - Chapter 173-340-708e

All analytical results reported in micrograms per kilogram (µg/kg) and converted into milligrams per kilogram (mg/kg) to match units used in MTCA cleanup levels; equivalent to parts per million (ppm)

Sample ID	Depth	Date Sampled	Les 18 mil	here Acerant	nylene Arthrace	ie Bentiaar	thracene Benzolah	Avene Bentoloff	uoranteene Benzolat	, ipervene Benzown	uprantiene Chrysene	Dibert	.nannscare	ene Fluorene	Indenot	2.3colprene	aprinalene 2.Metryin	aphthalene Naphthale	Phenanth	ene Pyrene	
SB-1	15	6/15/2021	0.126	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	0.128	<0.0986	<0.0986	
SB-2	20	6/15/2021	< 0.0991	<0.0991	< 0.0991	<0.0991	< 0.0991	<0.0991	<0.0991	<0.0991	< 0.0991	<0.0991	<0.0991	< 0.0991	<0.0991	<0.0991	<0.0991	< 0.0991	<0.0991	<0.0991	1
SB-3	20	6/15/2021	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	
SB-4	20	6/15/2021	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	
SB-5	20	6/15/2021	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	< 0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	1
MTCA Method A	cleanup levels ²		960 ³	NE	4,800 ³	0.100 ¹	0.100 ¹	0.100 ¹	NE	0.100 ¹	0.100 ¹	0.100 ¹	640 ³	640 ³	0.100 ¹		160		NA	480 ³	
MTCA TEFs⁴						0.1	1	0.1		0.1	0.01	0.1			0.1						
Modified TEF Gr	roundwater Cond	centration for Sample SB-1				0.00493	0.0493	0.00493		0.00493	0.000493	0.00493			0.00493						
Modified Total c	PAH Concentrat	tion for Sample SB-1											0.074								
Modified TEF Gr	roundwater Cond	centration for Sample SB-2				0.004955	0.04955	0.004955		0.004955	0.000496	0.004955			0.004955						
Modified Total c	PAH Concentrat	tion for Sample SB-2						-		-			0.075								
Modified TEF Gr	roundwater Cond	centration for Sample SB-3				0.004935	0.04935	0.004935		0.004935	0.000494	0.004935			0.004935						
Modified Total c	PAH Concentrat	tion for Sample SB-3											0.075								
Modified TEF Gr	roundwater Cond	centration for Sample SB-4				0.004925	0.04925	0.004925		0.004935	0.000494	0.004935			0.004935						
Modified Total c	PAH Concentrat	tion for Sample SB-4				1	•	-	-	-	-	-	0.074	•	-	-			•	-	1
Modified TEF Gr	roundwater Cond	centration for Sample SB-5				0.004955	0.04955	0.004955		0.004955	0.000496	0.004955			0.004955						1
Modified Total c	PAH Concentrat	tion for Sample SB-5											0.075								1
Notes:		-	-	•	•	•															1

All results reported in micrograms per liter (μ g/L)

µg/L = microgram per liter

NE = Cleanup level has not been established or researched

< = less than stated laboratory reporting limit.

-- = Not Analyzed

1. Polycyclic Aromatic Hydrocarbon (PAHs) analysis by EPA Method 8270-SIM. The sum of all detected carcinogenic PAHs must meet this cleanup level using the toxicity equivalency methodology in WAC 173-340-708(8). The carcinogenic PAHs include benzo(a)pyrene, chrysene, dibenz(a)anthracene, indeno(1,2,3-cd)pyrene, benzo(k)flouranthene, benzo(a)anthracene, and benzo(b)flouranthene.

2. All values are MTCA Method A cleanup levels, unless otherwise noted.

3. MTCA Method B protective values. These values are concentrations that are protective of human health for soil ingestion under Standard Method B using the equations and default values provided in the regulation.

4. MTCA toxicity equivalency factors (TEFs) as listed in Table 708-2 of MTCA Cleanup Regulation.

5. Modified TEF groundwater concentration determined by multiplying detected PAH concentration by TEF. For those PAH concentrations not detected above the laboratory method reporting limit, the TEF was multiplied by the method reporting limit.

6. Modified Total cPAH concentration is the sum of all the modified cPAH groundwater concentrations.

FIGURES





Ν

ATC -AN ATLAS COMPANY-	6347 Seaviev Seattle, WA 9 _ (206) 781-14	w Avenue NW 98107 49		
PROJECT NO.: 282EM003	70			
DRAWN BY: NB	SCALE: NTS	SITE PLAN B		
REVIEWED BY: GG	DATE: 06/2021	FILE: SITE PLAN		

SOIL BORING LOCATIONS MAP MULTI-FAMILY APARTMENT BUILDING AND COMMERCIAL PARKING LOT 8914 14TH AVENUE SOUTH

SEATTLE, WASHINGTON

APPENDIX A

Boring Logs

Projec	t Multi-Far	nily Res	idential	& Vac	ant L	ot Location 8914 14th Avenue South, Seattle, WA	SB-1		
Client	City of Sea	attle				SHEL Drill Method <u>Direct-push</u> Elevation (ft amsl)	1 OF 1		
Prj. No. 282EM00370 Drilling Started 6/15/21 Ended 6/15/21 Total Depth (ft) 15									
Logge	d By <u>B. Go</u>	oulet				Drill Contractor <u>ESN Northwest</u> Depth To Water (ft) Δ	7		
DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	ГІТНОГОСУ	DESCRIPTION	DEPTH FEET		
	CT SB1-1.0'		55.0	SM		Surface: ~0.5" Asphalt dark brown silty SAND with gravel and wood fragments, weak induration, damp, moderate petroleum odor.	-		
-	СТ			CL		dark gray silty CLAY, moderate induration, moist to wet, no odor.	+		
-						No recovery.	+		
_							-		
5 —	CT SB1-5'		1.0			gray-brown clayey SILT, weak induration, wet, no odor.	-5		
_				ML			¥ -		
10	СТ			ML		gray-brown clayey SILT, weak induration, wet, no odor.	— 10 - -		
1 7/6/21							-		
						Bottom of hole at 15 feet	15		
רטסא באזי ווא די דיטסא באזי							-		
SEAL							-		
			63	347 Se Sea Phon Fax	eaviev Ittle, \ e: 20 : 206	Remarks: A Avenue NW VA 98107 6-781-1449 -781-1543 See key sheet for symbols and abbreviations used above			



-OG A EWNN76 CITY OF SEATTLE BORING LOGS GPJ LOG A EWNN05 GDT 7/6/21

Projec	t Multi-Fam	nily Res	idential	& Vac	ant L	ot Location 8914 14th Avenue South, Seattle, WA LOG OF SHEE7	SB-3		
Client	City of Sea	attle				Drill Method Direct-push Elevation (ft amsl)			
Prj. No	o. <u>282EM00</u>	0370				Drilling Started <u>6/15/21</u> Ended <u>6/15/21</u> Total Depth (ft) <u>20</u>	2		
Logge	Logged By <u>B. Goulet</u> Drill Contractor <u>ESN Northwest</u> Depth To Water (ft) <u>ATD 6</u>								
DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	NSCS	ГІТНОГОСУ	DESCRIPTION	DEPTH FEET		
-	CT SB3-1'		0.6	SM		Surface: ~0.5" Gravel medium brown silty SAND with gravel, weak to strong induration, dry, no odor.			
5	ст			ML		dark brown clayey SILT with sand lenses and occasional gravel, weak induration, wet, no odor.	<u>↓</u> 5 <u>↓</u> -		
10	CT			ML		No recovery. dark brown clayey SILT with sand lenses and occasional gravel with wood fragments, weak induration, wet, no odor.			
15				ML		No recovery. light brown clayey SILT with sand lenses and occasional gravel, weak induration, wet to damp, no odor. Bottom(co/ntiplead)20 feet	- 15 - -		
6347 Seaview Avenue NW Seattle, WA 98107 Phone: 206-781-1449 Fax: 206-781-1543 See key sheet for symbols and abbreviations used above.									

Projec	t Multi-Fam	nily Resi	idential	& Vac	ant Lo	Location _8914 14th Avenue South, Seattle, WA		OF SB-3 HEET 2 OF 2
Client	City of Sea	attle				Drill Method Elevation (ft a	msl)	
Prj. No	o. 282EM00	0370				Drilling Started 6/15/21 Ended 6/15/21 Total Depth (f	t) _20	
Logge	d By <u>B. Go</u>	ulet				Drill Contractor ESN Northwest Depth To Wat	.er (ft) A	ATD 6
DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	nscs	ГІТНОГОСУ	DESCRIPTION		DEPTH FEET
	СТ							- - - - - - - - - - - - - - - - - - -
								-
			63	347 Se Sea Phon Fax	eaview ttle, W e: 206 : 206-7	Avenue NW A 98107 781-1449 81-1543 See key sheet for symbols and abbreviations used above.		

LOG A EWNN05.GD	
BORING LOGS.GPJ	
CITY OF SEATTLE	
LOG A EWNN76 (

Projec	t_Multi-Fam	nily Resi	dential	& Vac	ant Lo	bt Location 8914 14th Avenue South, Seattle, WA	SB-4			
Client	City of Sea	attle				Drill Method Direct-push Elevation (ft amsl)				
Prj. No	o. <u>282EM00</u>	0370				Drilling Started 6/15/21 Ended 6/15/21 Total Depth (ft) 20				
Logge	d By <u>B. Go</u>	oulet				Drill Contractor <u>ESN Northwest</u> Depth To Water (ft) $$ ATD 10)			
DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	NSCS	ГІТНОГОСУ	DESCRIPTION	DEPTH FEET			
	CT SB4-1' CT		0.8	SM		Surface: ~0.5" Gravel	-			
5 —				SM		dark brown to medium brown silty SAND with gravel, moderate induration, damp, no odor.	- 5 -			
_	СТ			ML		moist, no odor.	_			
						No recovery.	-			
10 — - - - 15 —	СТ			ML		gray clayey SILT with sand (increasing sand content down section), moderate induration, wet, no odor.	/ 10 15			
-				SM		gray-brown sility SAND with gravel, weak to strong induration, wet, no odor.	- - -			
	Remarks:									
6347 Seaview Avenue NW Seattle, WA 98107 Phone: 206-781-1449 Fax: 206-781-1543 See key sheet for symbols and abbreviations used above.										



OG A EWNN76 CITY OF SEATTLE BORING LOGS GPJ LOG A EWNN05 GDT 7/6/21

APPENDIX B

Laboratory Analytical Reports and Chain of Custody Documentation



3600 Fremont Ave. N. Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

ATC Group Services, Inc. Nasrin Bastami 6347 Seaview Ave NW Seattle, WA 98107

RE: City of Seattle Work Order Number: 2106281

July 02, 2021

Attention Nasrin Bastami:

Fremont Analytical, Inc. received 31 sample(s) on 6/15/2021 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Dissolved Mercury by EPA Method 245.1 Dissolved Metals by EPA Method 200.8 Gasoline by NWTPH-Gx Hexavalent Chromium by SM 3500 Cr B Mercury by EPA Method 245.1 Mercury by EPA Method 7471 Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Sample Moisture (Percent Moisture) Total Metals by EPA Method 200.8 Total Metals by EPA Method 6020B Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Revision v1
Brianna Barnes Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910



CLIENT: Project: Work Order:	ATC Group Services, Inc. City of Seattle 2106281	Work Order Sample Summary						
Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received					
2106281-001	SB1-1'	06/15/2021 9:15 AM	06/15/2021 3:46 PM					
2106281-002	SB1-5'	06/15/2021 9:25 AM	06/15/2021 3:46 PM					
2106281-003	SB1-10'	06/15/2021 9:35 AM	06/15/2021 3:46 PM					
2106281-004	SB1-15'	06/15/2021 9:40 AM	06/15/2021 3:46 PM					
2106281-005	SB2-1'	06/15/2021 10:15 AM	06/15/2021 3:46 PM					
2106281-006	SB2-5'	06/15/2021 10:20 AM	06/15/2021 3:46 PM					
2106281-007	SB2-10'	06/15/2021 10:25 AM	06/15/2021 3:46 PM					
2106281-008	SB2-15'	06/15/2021 10:30 AM	06/15/2021 3:46 PM					
2106281-009	SB2-20'	06/15/2021 10:35 AM	06/15/2021 3:46 PM					
2106281-010	SB3-1'	06/15/2021 11:00 AM	06/15/2021 3:46 PM					
2106281-011	SB3-5'	06/15/2021 11:05 AM	06/15/2021 3:46 PM					
2106281-012	SB3-10'	06/15/2021 11:10 AM	06/15/2021 3:46 PM					
2106281-013	SB3-15'	06/15/2021 11:15 AM	06/15/2021 3:46 PM					
2106281-014	SB3-20'	06/15/2021 11:20 AM	06/15/2021 3:46 PM					
2106281-015	SB4-1'	06/15/2021 12:10 PM	06/15/2021 3:46 PM					
2106281-016	SB4-5'	06/15/2021 12:15 PM	06/15/2021 3:46 PM					
2106281-017	SB4-10'	06/15/2021 12:20 PM	06/15/2021 3:46 PM					
2106281-018	SB4-15'	06/15/2021 12:25 PM	06/15/2021 3:46 PM					
2106281-019	SB4-20'	06/15/2021 12:30 PM	06/15/2021 3:46 PM					
2106281-020	SB5-1'	06/15/2021 1:20 PM	06/15/2021 3:46 PM					
2106281-021	SB5-5'	06/15/2021 1:25 PM	06/15/2021 3:46 PM					
2106281-022	SB5-10'	06/15/2021 1:30 PM	06/15/2021 3:46 PM					
2106281-023	SB5-15'	06/15/2021 1:35 PM	06/15/2021 3:46 PM					
2106281-024	SB5-20'	06/15/2021 1:40 PM	06/15/2021 3:46 PM					
2106281-025	SB-1	06/15/2021 12:00 AM	06/15/2021 3:46 PM					
2106281-026	SB-2	06/15/2021 12:00 AM	06/15/2021 3:46 PM					
2106281-027	SB-3	06/15/2021 12:00 AM	06/15/2021 3:46 PM					
2106281-028	SB-4	06/15/2021 12:00 AM	06/15/2021 3:46 PM					
2106281-029	SB-5	06/15/2021 1:50 PM	06/15/2021 3:46 PM					
2106281-030	Trip Blank	06/10/2021 2:19 PM	06/15/2021 3:46 PM					
2106281-031	Trip Blank	06/10/2021 2:19 PM	06/15/2021 3:46 PM					



Case Narrative

WO#: **2106281** Date: **7/2/2021**

CLIENT:ATC Group Services, Inc.Project:City of Seattle

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Rev 1: Sample SB-5 has been analyzed for hexavalent chromium at the client's request.

Qualifiers & Acronyms



 WO#:
 2106281

 Date Reported:
 7/2/2021

Qualifiers:

- * Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

Acronyms:

%Rec - Percent Recovery CCB - Continued Calibration Blank CCV - Continued Calibration Verification DF - Dilution Factor DUP - Sample Duplicate HEM - Hexane Extractable Material ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

- MDL Method Detection Limit
- MS/MSD Matrix Spike / Matrix Spike Duplicate
- PDS Post Digestion Spike
- Ref Val Reference Value
- **REP Sample Replicate**
- RL Reporting Limit
- **RPD** Relative Percent Difference
- SD Serial Dilution
- SGT Silica Gel Treatment
- SPK Spike
- Surr Surrogate



Client: ATC Group Services, In	nc. Collection Date: 6/15/2021 9:15:00 AM							
Project: City of Seattle								
Lab ID: 2106281-001				Matrix: Sc	sil			
Client Sample ID: SP1 1					/11			
	.		<u> </u>					
Analyses	Result	RL	Qual	Units	DF	Dat	e Analyzed	
Diesel and Heavy Oil by NWTF	PH-Dx/Dx Ext.			Batch	ID:	32714	Analyst: MM	
Diesel 1/ Kerosene	816	48.0		mg/Kg-dry	1	6/21/2	2021 10:08:48 PM	
Diesel (Fuel Oil)	ND	48.0		mg/Kg-dry	1	6/21/2	2021 10:08:48 PM	
Heavy Oil	3,190	96.0		mg/Kg-dry	1	6/21/2	2021 10:08:48 PM	
Total Petroleum Hydrocarbons	4,000	144		mg/Kg-dry	1	6/21/2	2021 10:08:48 PM	
Surr: 2-Fluorobiphenyl	88.5	50 - 150		%Rec	1	6/21/2	2021 10:08:48 PM	
Surr: o-Terphenyl	94.5	50 - 150		%Rec	1	6/21/2	2021 10:08:48 PM	
Polyaromatic Hydrocarbons b	y EPA Method 8	<u>3270 (SIM)</u>		Batch	ID:	32676	Analyst: SB	
Nanhthalana	208	20.0		ua/Ka-dn/	1	6/17/2	0021 12:08:04 AM	
	2.90	20.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
1-Methylnaphthalene	2,040	20.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
	42.7	20.0		ug/Kg-dry	1	6/17/2	2021 12:08:04 AM	
Acenaphthylene	98.1	20.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
Fluorene	202	20.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
Phenanthrene	202	20.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
Anthracana	50.3	40.0		µg/Kg-dry	1	6/17/2	021 12:08:04 AM	
Fluerenthene	30.3	40.0		µg/Kg-diy	1	6/17/2	021 12:00:04 AM	
Puropo	304	40.0		µg/Kg-diy	1	6/17/2	021 12:00:04 AM	
Pyrene Bonz (c) on through c	400	40.0		µg/Kg-diy	1	6/17/2	2021 12:08:04 AM	
Benz(a)anthracene	214	20.0		µg/Kg-dry	1	0/17/2	2021 12:08:04 AN	
	486	40.0		µg/Kg-ary	1	6/17/2	2021 12:08:04 AM	
Benzo(b)huoranthene	234	20.0		µg/Kg-ary	1	6/17/2	2021 12:08:04 AM	
Benzo(k)nuorantnene	195	20.0		µg/Kg-ary	1	6/17/2	2021 12:08:04 AM	
Benzo(a)pyrene	277	20.0		µg/Kg-dry	1	6/17/2	2021 12:08:04 AM	
Indeno(1,2,3-cd)pyrene	117	40.0		µg/Kg-dry	1	6/17/2	2021 12:08:04 AM	
Dibenz(a,h)anthracene	79.9	40.0		µg/Kg-dry	1	6/17/2	2021 12:08:04 AM	
Benzo(g,h,ı)perylene	144	20.0		µg/Kg-dry	1	6/17/2	2021 12:08:04 AM	
Surr: 2-Fluorobiphenyl	93.4	19 - 135		%Rec	1	6/17/2	2021 12:08:04 AM	
Surr: Terpnenyi-d14 (surr)	110	42.9 - 156		%Rec	1	6/17/2	2021 12:08:04 AM	
Gasoline by NWTPH-Gx				Batch	ID:	32743	Analyst: CR	
Gasoline	ND	6.17		mg/Kg-dry	1	6/22/2	2021 10:42:53 PM	
Surr: Toluene-d8	97.0	65 - 135		%Rec	1	6/22/2	2021 10:42:53 PM	
Surr: 4-Bromofluorobenzene	106	65 - 135		%Rec	1	6/22/2	2021 10:42:53 PM	
Volatile Organic Compounds	by EPA Method	<u>8260D</u>		Batch	ID:	32743	Analyst: CR	
Benzene	ND	0.0247		mg/Kg-dry	1	6/22/2	2021 10:42:53 PM	



Client: ATC Group Services, Inc.				Collection	Dat	t e: 6/15/2021 9:15:00 AM
I ab ID: 2106281-001				Matrix: Sc	vil	
Client Sample ID: SB1-1'					/11	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EF	PA Method	<u>8260D</u>		Batch	ID:	32743 Analyst: CR
Toluene	ND	0.0370		ma/Ka-drv	1	6/22/2021 10:42:53 PM
Ethylbenzene	ND	0.0308		ma/Ka-drv	1	6/22/2021 10:42:53 PM
m,p-Xylene	ND	0.0617		mg/Kg-dry	1	6/22/2021 10:42:53 PM
o-Xylene	ND	0.0308		ma/Ka-dry	1	6/22/2021 10:42:53 PM
Surr: Dibromofluoromethane	94.8	80 - 120		%Rec	1	6/22/2021 10:42:53 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	6/22/2021 10:42:53 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	6/22/2021 10:42:53 PM
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB
Mercury	ND	0.261		mg/Kg-dry	1	6/21/2021 12:35:49 PM
Total Metals by EPA Method 6020B	<u>1</u>			Batch	ID:	32686 Analyst: EH
Arsenic	4.14	0.0990		mg/Kg-dry	1	6/23/2021 3:38:03 PM
Barium	53.5	0.495		mg/Kg-dry	1	6/21/2021 6:42:47 PM
Cadmium	0.296	0.165		mg/Kg-dry	1	6/21/2021 6:42:47 PM
Chromium	18.0	0.330		mg/Kg-dry	1	6/21/2021 6:42:47 PM
Lead	90.3	0.165		mg/Kg-dry	1	6/22/2021 5:42:32 PM
Selenium	0.981	0.165		mg/Kg-dry	1	6/23/2021 3:38:03 PM
Silver	0.818	0.124		mg/Kg-dry	1	6/22/2021 5:42:32 PM
Sample Moisture (Percent Moisture	<u>e)</u>			Batch	ID:	R68002 Analyst: OK
Percent Moisture	9.53			wt%	1	6/17/2021 10:24:13 AM



 Work Order:
 2106281

 Date Reported:
 7/2/2021

Client: ATC Group Services, Inc.				Collection Date: 6/15/2021 9:25:00 AM					
Project: City of Seattle									
Lab ID: 2106281-002				Matrix: So	hil				
Client Sample ID: SB1-5'									
	Beault	ы	0	Unito		Dete Analyzed			
Analyses	Result	RL	Qual	Units	UF	Date Analyzed			
Diesel and Heavy Oil by NWTPH-D	x/Dx Ext.			Batch	n ID:	32714 Analyst: MM			
Diesel (Fuel Oil)	ND	67.9		mg/Kg-dry	1	6/21/2021 11:12:37 PM			
Heavy Oil	ND	136		mg/Kg-dry	1	6/21/2021 11:12:37 PM			
Total Petroleum Hydrocarbons	ND	204		mg/Kg-dry	1	6/21/2021 11:12:37 PM			
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	6/21/2021 11:12:37 PM			
Surr: o-Terphenyl	104	50 - 150		%Rec	1	6/21/2021 11:12:37 PM			
Polyaromatic Hydrocarbons by EF	A Method	8270 (SIM)		Batch	n ID:	32676 Analyst: SB			
Naphthologo	ND	25.4		ua/Ka day	1	6/17/2021 12:20:30 AM			
2 Methylapathalapa		25.4		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
2-Methylnaphthalene		25.4		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
		25.4		µg/Kg-ury	1	6/17/2021 12:29:30 AW			
		25.4		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
Elucropo		25.4		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
Phononthrono		20.4		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
	ND	50.8		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
Fluerenthene		50.8		µg/Kg-ury	1	6/17/2021 12:29:30 AM			
Pirone	ND	50.8		µg/Kg-ury	1	6/17/2021 12:29:30 AW			
	ND	50.8		µg/kg-ary	1	0/17/2021 12:29:30 AM			
Benz(a)anthracene	ND	25.4		µg/kg-ary	1	6/17/2021 12:29:30 AM			
	ND	50.8		µg/kg-ary	1	6/17/2021 12:29:30 AM			
Benzo(b)fluorantnene	ND	25.4		µg/Kg-ary	1	6/17/2021 12:29:30 AM			
Benzo(k)fluoranthene	ND	25.4		µg/Kg-dry	1	6/17/2021 12:29:30 AM			
Benzo(a)pyrene	ND	25.4		µg/Kg-ary	1	6/17/2021 12:29:30 AM			
Indeno(1,2,3-cd)pyrene	ND	50.8		µg/Kg-ary	1	6/17/2021 12:29:30 AM			
Dibenz(a,h)anthracene	ND	50.8		µg/Kg-dry	1	6/17/2021 12:29:30 AM			
Benzo(g,n,i)perviene		25.4		µg/Kg-ary	1	6/17/2021 12:29:30 AM			
	70.0	19 - 135		%Rec	1	6/17/2021 12:29:30 AM			
Surr: Terphenyl-d14 (surr)	90.9	42.9 - 156		%Rec	1	6/17/2021 12:29:30 AM			
Gasoline by NWTPH-Gx				Batch	n ID:	32743 Analyst: CR			
Gasoline	ND	66.4	D	mg/Kg-dry	5	6/23/2021 10:57:09 AM			
Surr: Toluene-d8	105	65 - 135	D	%Rec	5	6/23/2021 10:57:09 AM			
Surr: 4-Bromofluorobenzene NOTES:	93.0	65 - 135	D	%Rec	5	6/23/2021 10:57:09 AM			

Diluted due to matrix.



Client: ATC Group Services, Inc.	Collection Date: 6/15/2021 9:25:00 AM					
Lab ID: 2106281-002				Matrix: Sc	oil	
Client Sample ID: SB1-5'						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by	EPA Method	8260D		Batch	ID:	32743 Analyst: CR
Benzene	ND	0.0531		mg/Kg-dry	1	6/22/2021 11:13:35 PM
Toluene	ND	0.0797		mg/Kg-dry	1	6/22/2021 11:13:35 PM
Ethylbenzene	ND	0.0664		mg/Kg-dry	1	6/22/2021 11:13:35 PM
m,p-Xylene	ND	0.133		mg/Kg-dry	1	6/22/2021 11:13:35 PM
o-Xylene	ND	0.0664		mg/Kg-dry	1	6/22/2021 11:13:35 PM
Surr: Dibromofluoromethane	93.2	80 - 120		%Rec	1	6/22/2021 11:13:35 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	6/22/2021 11:13:35 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	6/22/2021 11:13:35 PM
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB
Mercury	ND	0.354		mg/Kg-dry	1	6/21/2021 12:37:25 PM
Total Metals by EPA Method 602	<u>0B</u>			Batch	ID:	32686 Analyst: EH
Arsenic	2.80	0.139		mg/Kg-dry	1	6/23/2021 3:43:37 PM
Barium	36.7	0.696		mg/Kg-dry	1	6/21/2021 6:48:21 PM
Cadmium	ND	0.232		mg/Kg-dry	1	6/21/2021 6:48:21 PM
Chromium	15.6	0.464		mg/Kg-dry	1	6/21/2021 6:48:21 PM
Lead	3.72	0.232		mg/Kg-dry	1	6/22/2021 5:48:05 PM
Selenium	0.946	0.232		mg/Kg-dry	1	6/23/2021 3:43:37 PM
Silver	ND	0.174		mg/Kg-dry	1	6/21/2021 6:48:21 PM
Sample Moisture (Percent Moist	ure)			Batch	ID:	R68002 Analyst: OK
Percent Moisture	32.1			wt%	1	6/17/2021 10:24:13 AM



Project: City of Seattig Lab U: 2106/281-007. Matrix: Suit Client Sample ID: SB2-10' Result R Qual Units DF Date Analyzed Analyses Result RL Qual Units DF Date Analyzed Dised and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32714 Analyses Analyses Dised and Heavy Oil ND 60.9 mg/Kg-dry 1 622/2021 11:50:56 PM Heavy Oil ND 60.9 mg/Kg-dry 1 622/2021 11:50:56 PM Surr: 2-Huorobphenyl 75:5 60-150 3kRec 1 622/2021 11:50:56 PM Surr: 2-Huorobphenyl 81:8 50-150 3kRec 1 621/2021 11:50:56 PM Naphthalene ND 28.6 µg/Kg-dry 1 617/2021 91:40:40 AM Acomaphthylaw ND 28.6 µg/Kg-dry 1 617/2021 91:40:40 AM Acomaphthylaw ND 28.6 µg/Kg-dry 1 617/2021 91:40:40 AM <	Client: ATC Group Services, Inc.		Collection Date: 6/15/2021 10:25:00 AM						
Lab ID: 2106281-007 Matrix: Soil Client Sample ID: SB2-10' Analyses Result RL Qual Units DF Date Analyzed Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32714 Analyses Malyses Diesel (Fuel Oil) ND 60.9 mg/Kg-dry 1 6/21/2021 11:50:56 PM Heavy Oil ND 122 mg/Kg-dry 1 6/21/2021 11:50:56 PM Surr: 2-Fluorobjehenyl 75.5 50:150 %Rec 1 6/21/2021 11:50:56 PM Surr: 2-Fluorobjehenyl 81.8 50:-150 %Rec 1 6/21/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pluorand ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pluoranthene ND 28.	Project: City of Seattle								
Naphtalene ND 28.6 µgKg-dry 1 G2/2021 11:50:56 PM Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32714 Analyses Analyses Malyses 627/2021 11:50:56 PM Diesel Grei Cili) ND 60.9 mgKg-dry 1 627/2021 11:50:56 PM Heavy Oil ND 122 mgKg-dry 1 627/2021 11:50:56 PM Sur: 2-Fluorobipheryl 75:5 50-150 3kRec 1 627/2021 11:50:56 PM Sur: 0-Terphenyl 81:8 50-150 3kRec 1 627/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphhalene ND 28.6 µgKg-dry 1 617/2021 91:40:4 AM Acenaphthylene ND 57.3	Lab ID: 2106281-007				Matrix: Sc	vil			
Analyses Result RL Qual Units DF Date Analyzed Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32714 Analysi: MM Diesel (Fuel Oil) ND 60.9 mg/Kg-dry 1 62/1/2021 11:50:56 PM Heavy Oil ND 122 mg/Kg-dry 1 62/1/2021 11:50:56 PM Total Periodoum Hydrocarbons ND 183 mg/Kg-dry 1 62/1/2021 11:50:56 PM Sur:: 2-Fluorobiphenyl 75:5 50 - 150 %Rec 1 62/1/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM 2-Methynaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 57.3 µg/Kg-dry	Client Semple ID: SD2 40					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Nariatyses Result RL Guar Onits Dr Date Analyzed Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32714 Analyst: MM Diesel (Fuel Oil) ND 60.9 mg/Kg-dry 1 6/21/2021 11:50:56 PM Heavy Oil ND 122 mg/Kg-dry 1 6/21/2021 11:50:56 PM Strr: 2-Furchospheren/ 81.8 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Polvaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthyne ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthyne ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM	Analyzas	Booult	ום	Qual	Unito		Doto Analyzad		
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch D: 3271 Analyst: MM Diesel (Fuel Oil) ND 60.9 mg/Kg-dry 1 6/21/2021 11:50:56 PM Heavy Oil ND 183 mg/Kg-dry 1 6/21/2021 11:50:56 PM Sur: 2-Fluorobiphenyl 75:5 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Sur: 2-Fluorobiphenyl 75:5 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Naphthaiene ND 28.6 µg/Kg-dry 1 6/21/2021 11:50:56 PM Accenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Accenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Accenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Accenaphthylene ND 27.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 67.3 µg/Kg-dry 1	Analyses	Result	ĸL	Quai	Units		Date Analyzeu		
Diesel (Fuel Oil) ND 60.9 mg/Kg-dry 1 6/21/2021 11:50:56 PM Total Petroleum Hydrocarbons ND 183 mg/Kg-dry 1 6/21/2021 11:50:56 PM Surr: 2-Terphenyl 81.8 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Nurr: o-Terphenyl 81.8 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Naphthalene ND 28.6 µg/Kg-dry 1 6/21/2021 11:40:4A -Adentylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:4:04 AM -Adentylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:4:04 AM -Adenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:4:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:4:04 AM Floorene ND 27.3 µg/Kg-dry 1 6/17/2021 9:4:04 AM Floorene ND 57.3	Diesel and Heavy Oil by NWTPH-D	<u>x/Dx Ext.</u>			Batch	ID:	32714 Analyst: MM		
Heav Oil ND 122 mg/Kg-dry 1 6/21/2021 11:50:56 PM Total Petroleum Hydrocarbons ND 183 mg/Kg-dry 1 6/21/2021 11:50:56 PM Surr: 2-Terphenyl 81.8 50-150 %Rec 1 6/21/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 3270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM -2Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Floorene ND 27.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Floorene ND 57.3 µg/Kg-dry 1	Diesel (Fuel Oil)	ND	60.9		mg/Kg-dry	1	6/21/2021 11:50:56 PM		
Total Petroleum Hydrocarbons ND 183 mg/Kg-dry 1 6/21/2021 11:50:56 PM Surr: o-Terphenyl 75.5 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM 2-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM 1-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM Ploarambtrene ND 28.6 µg/Kg-dry 1 6/17/2021 91:4:04 AM Ploarambtrene ND 27.3 µg/Kg-dry 1 6/17/2021 91:4:04 AM Ploarambtrene ND 57.3 µg/Kg-dry 1 6/17/2021 91:4:04 AM Ploarambtrene ND 57.3 <	Heavy Oil	ND	122		mg/Kg-dry	1	6/21/2021 11:50:56 PM		
Surr: 2-Fluorobiphenyl 75.5 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Surr: o-Terphenyl 81.8 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(ajanthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(ajanthracene ND 57.3 µg/	Total Petroleum Hydrocarbons	ND	183		mg/Kg-dry	1	6/21/2021 11:50:56 PM		
Sur: c-Terphenyl 81.8 50 - 150 %Rec 1 6/21/2021 11:50:56 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32676 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM 2-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pluoranthene ND 67.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pluoranthene ND 67.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Privene ND 67.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(b/(luoranthene ND 28.6 µg/Kg-dry	Surr: 2-Fluorobiphenyl	75.5	50 - 150		%Rec	1	6/21/2021 11:50:56 PM		
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Bath ID: 3267 Analyst: SB Naphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM 2-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pleorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pleorene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorenthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(k)Ituoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)Ituoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)Ituoranthene ND 28.6 µg/Kg-dry	Surr: o-Terphenyl	81.8	50 - 150		%Rec	1	6/21/2021 11:50:56 PM		
Naphthalene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM 2-Methylnaphthalene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM 1-Methylnaphthalene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6	Polyaromatic Hydrocarbons by EP	A Method	<u>8270 (SIM)</u>		Batch	ID:	32676 Analyst: SB		
2-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM 1-Methylnaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(a)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6	Naphthalene	ND	28.6		µa/Ka-dry	1	6/17/2021 9:14:04 AM		
1-Methylaphthalene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(b(fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b/fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6	2-Methylnaphthalene	ND	28.6		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Acenaphthylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benza(a)anthracene ND 27.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a)hanthracene ND 57.3	1-Methylnaphthalene	ND	28.6		ua/Ka-drv	1	6/17/2021 9:14:04 AM		
Acenaphthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a)hipprylene ND 57.3 <t< td=""><td>Acenaphthylene</td><td>ND</td><td>28.6</td><td></td><td>µg/Kg-dry</td><td>1</td><td>6/17/2021 9:14:04 AM</td></t<>	Acenaphthylene	ND	28.6		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Fluorene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.	Acenaphthene	ND	28.6		ua/Ka-drv	1	6/17/2021 9:14:04 AM		
Phenanthrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1	Fluorene	ND	28.6		ua/Ka-drv	1	6/17/2021 9:14:04 AM		
Anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Chrysene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g),h)perylene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19<-135	Phenanthrene	ND	57.3		ua/Ka-drv	1	6/17/2021 9:14:04 AM		
Fluoranthene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Chrysene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec <td< td=""><td>Anthracene</td><td>ND</td><td>57.3</td><td></td><td>ua/Ka-drv</td><td>1</td><td>6/17/2021 9:14:04 AM</td></td<>	Anthracene	ND	57.3		ua/Ka-drv	1	6/17/2021 9:14:04 AM		
Pyrene ND 67.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Benz(a)anthracene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Chrysene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(k)fluoranthene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42:9 - 156	Fluoranthene	ND	57.3		ua/Ka-dry	1	6/17/2021 9·14·04 AM		
Indic Indic One of the second se	Pyrene	ND	57.3		ua/Ka-dry	1	6/17/2021 9:14:04 AM		
Dotation ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2	Benz(a)anthracene	ND	28.6		ua/Ka-dry	1	6/17/2021 9:14:04 AM		
Benze(b)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benze(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indero(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50	Chrysene	ND	57.3		ug/Kg-dry	1	6/17/2021 9:14:04 AM		
Benzo(k)fluoranthene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR </td <td>Benzo(h)fluoranthene</td> <td>ND</td> <td>28.6</td> <td></td> <td>ug/Kg-dry</td> <td>1</td> <td>6/17/2021 9:14:04 AM</td>	Benzo(h)fluoranthene	ND	28.6		ug/Kg-dry	1	6/17/2021 9:14:04 AM		
Deficiency ND 28.0 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(a)pyrene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID:	Benzo(k)fluoranthene	ND	20.0		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Dotable(a)(p)(dit) ND 20.5 pg/ng/dity 1 6/17/2021 9:14:04 AM Indeno(1,2,3-cd)pyrene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Gasoline by NWTPH-Gx 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR	Benzo(a)pyrene		28.6		ug/Kg-dry	1	6/17/2021 9:14:04 AM		
Indend (1,2,5od) pyrelie ND 57.3 µg/kg-dry 1 6/17/2021 9:14:04 AM Dibenz(a,h)anthracene ND 57.3 µg/Kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Indeno(1,2,3-cd)pyrene	ND	57.3		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Diberz(a, i) and indecise ND 37.3 pg/kg-dry 1 6/17/2021 9:14:04 AM Benzo(g,h,i)perylene ND 28.6 µg/Kg-dry 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Dibonz(a b)anthracono		57.3		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Benzolgi, i, jperylene ND 20.0 pg/rtg/drly 1 6/17/2021 9:14:04 AM Surr: 2-Fluorobiphenyl 77.8 19 - 135 %Rec 1 6/17/2021 9:14:04 AM Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline by NWTPH-Gx Batch ID: 32743 Analyst: CR Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Benzo(a h i)pervlene		28.6		µg/Kg-dry	1	6/17/2021 9:14:04 AM		
Surr: Terphenyl-d14 (surr) 95.8 42.9 - 156 %Rec 1 6/17/2021 9:14:04 AM Gasoline by NWTPH-Gx Batch ID: 32743 Analyst: CR Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Surr: 2 Elucrobiobooud	77.9	10 125		μg/itg-uiy % Roc	1	6/17/2021 9:14:04 AM		
Gasoline by NWTPH-Gx Batch ID: 32743 Analyst: CR Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Surr: Terphenyl-d14 (surr)	95.8	42.9 - 156		%Rec	1	6/17/2021 9:14:04 AM		
Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Gasoline by NWTPH-Gx				Batch	ID:	32743 Analyst: CR		
Gasoline ND 6.93 mg/Kg-dry 1 6/23/2021 9:55:50 AM Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM									
Surr: Toluene-d8 98.2 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Gasoline	ND	6.93		mg/Kg-dry	1	6/23/2021 9:55:50 AM		
Surr: 4-Bromofluorobenzene 99.3 65 - 135 %Rec 1 6/23/2021 9:55:50 AM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Surr: Toluene-d8	98.2	65 - 135		%Rec	1	6/23/2021 9:55:50 AM		
Volatile Organic Compounds by EPA Method 8260D Batch ID: 32743 Analyst: CR Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Surr: 4-Bromofluorobenzene	99.3	65 - 135		%Rec	1	6/23/2021 9:55:50 AM		
Benzene ND 0.0277 mg/Kg-dry 1 6/22/2021 11:44:17 PM Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Volatile Organic Compounds by E	PA Method	8260D		Batch	ID:	32743 Analyst: CR		
Toluene ND 0.0416 mg/Kg-dry 1 6/22/2021 11:44:17 PM	Benzene	ND	0.0277		mg/Kg-dry	1	6/22/2021 11:44:17 PM		
	Toluene	ND	0.0416		mg/Kg-dry	1	6/22/2021 11:44:17 PM		



Client: ATC Group Services, Inc.	Collection Date: 6/15/2021 10:25:00 AM					
Lab ID: 2106281-007				Matrix: Sc	il	
Client Sample ID: SB2 40						
Analyzan	Decult		0	11:10		Dete Anelyzed
Analyses	Result	RL	Quai	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batch	ID:	32743 Analyst: CR
Ethylbenzene	ND	0.0346		ma/Ka-dry	1	6/22/2021 11:44:17 PM
m,p-Xylene	ND	0.0693		mg/Kg-dry	1	6/22/2021 11:44:17 PM
o-Xylene	ND	0.0346		mg/Kg-dry	1	6/22/2021 11:44:17 PM
Surr: Dibromofluoromethane	93.0	80 - 120		%Rec	1	6/22/2021 11:44:17 PM
Surr: Toluene-d8	96.3	80 - 120		%Rec	1	6/22/2021 11:44:17 PM
Surr: 1-Bromo-4-fluorobenzene	103	80 - 120		%Rec	1	6/22/2021 11:44:17 PM
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB
Mercury	ND	0.330		mg/Kg-dry	1	6/21/2021 12:39:01 PM
Total Metals by EPA Method 6020E	<u>3</u>			Batch	ID:	32686 Analyst: EH
Arsenic	4.88	0.131		mg/Kg-dry	1	6/23/2021 3:49:12 PM
Barium	48.8	0.655		mg/Kg-dry	1	6/21/2021 6:53:55 PM
Cadmium	ND	0.218		mg/Kg-dry	1	6/21/2021 6:53:55 PM
Chromium	19.0	0.437		mg/Kg-dry	1	6/21/2021 6:53:55 PM
Lead	4.02	0.218		mg/Kg-dry	1	6/22/2021 5:53:39 PM
Selenium	1.85	0.218		mg/Kg-dry	1	6/23/2021 3:49:12 PM
Silver	ND	0.164		mg/Kg-dry	1	6/21/2021 6:53:55 PM
Sample Moisture (Percent Moistur	<u>e)</u>			Batch	ID:	R68002 Analyst: OK
Percent Moisture	31.2			wt%	1	6/17/2021 10:24:13 AM



Client: ATC Group Services, Inc.				Collection Date: 6/15/2021 11:00:00 AM				
Project: City of Seattle								
I ab ID: 2106281-010				Matrix: Sc	vil			
Client Semple ID: SD2 4					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	D 1/		<u> </u>					
Analyses	Result	RL	Qual	Units	DF	- Date Analyzed		
Diesel and Heavy Oil by NWTPH-D)x/Dx Ext.			Batch	ID:	32714 Analyst: MM		
Diesel (Fuel Oil)	ND	46.2		mg/Kg-dry	1	6/22/2021 12:16:27 AM		
Heavy Oil	ND	92.5		mg/Kg-dry	1	6/22/2021 12:16:27 AM		
Total Petroleum Hydrocarbons	ND	139		mg/Kg-dry	1	6/22/2021 12:16:27 AM		
Surr: 2-Fluorobiphenyl	95.3	50 - 150		%Rec	1	6/22/2021 12:16:27 AM		
Surr: o-Terphenyl	94.9	50 - 150		%Rec	1	6/22/2021 12:16:27 AM		
Polyaromatic Hydrocarbons by EF	A Method	<u>8270 (SIM)</u>		Batch	ID:	32676 Analyst: SB		
Naphthalene	ND	19.3		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
2-Methylnaphthalene	ND	19.3		µa/Ka-dry	1	6/17/2021 9:35:27 AM		
1-Methylnaphthalene	ND	19.3		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Acenaphthylene	ND	19.3		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Acenaphthene	ND	19.3		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Fluorene	ND	19.3		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Phenanthrene	ND	38.6		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Anthracene	ND	38.6		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Fluoranthene	ND	38.6		ua/Ka-drv	1	6/17/2021 9:35:27 AM		
Pyrene	ND	38.6		ua/Ka-dry	1	6/17/2021 9:35:27 AM		
Benz(a)anthracene	ND	19.3		ua/Ka-dry	1	6/17/2021 9:35:27 AM		
Chrysene	ND	38.6		ua/Ka-dry	1	6/17/2021 9:35:27 AM		
Benzo(h)fluoranthene	ND	10.3		µg/Kg dry	1	6/17/2021 9:35:27 AM		
Benzo(k)fluoranthene	ND	10.3		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
Benzo(a)nyrene	ND	10.3		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
Indepo(1,2,3-cd)ovrene	ND	38.6		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
Dibenz(a h)anthracene	ND	38.6		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
Benzo(a h i)pervlene	ND	10.3		µg/Kg-dry	1	6/17/2021 9:35:27 AM		
Surr: 2 Elucrobioboov	06.2	10 125		μg/itg-ury % Roc	1	6/17/2021 9:35:27 AM		
Surr: Terphenyl-d14 (surr)	90.2 122	42.9 - 156		%Rec	1	6/17/2021 9:35:27 AM		
Gasoline by NWTPH-Gx				Batch	ID:	32743 Analyst: CR		
Gasoline	ND	6.55		mg/Kg-dry	1	6/23/2021 10:26:31 AM		
Surr: Toluene-d8	98.1	65 - 135		%Rec	1	6/23/2021 10:26:31 AM		
Surr: 4-Bromofluorobenzene	98.2	65 - 135		%Rec	1	6/23/2021 10:26:31 AM		
Volatile Organic Compounds by E	PA Method	8260D		Batch	ID:	32743 Analyst: CR		
Benzene	ND	0.0262		mg/Ka-drv	1	6/23/2021 12:14:53 AM		
Toluene	ND	0.0393		mg/Kg-dry	1	6/23/2021 12:14:53 AM		
				5 5 7				



Client: ATC Group Services, Inc.	Collection Date: 6/15/2021 11:00:00 AM					
I ab ID: 2106281-010				Matrix: Sc	il	
Client Sample ID: SB3-1					/11	
Analyses	Result	RI	Qual	Units	DF	Date Analyzed
	nooun		444	•		2407 11419204
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batch	ID:	32743 Analyst: CR
Ethylbenzene	ND	0 0327		ma/Ka-dry	1	6/23/2021 12:14:53 AM
m p-Xylene	ND	0.0655		mg/Kg dry	1	6/23/2021 12:14:53 AM
o-Xvlene	ND	0.0327		ma/Ka-drv	1	6/23/2021 12:14:53 AM
Surr: Dibromofluoromethane	92.0	80 - 120		%Rec	1	6/23/2021 12:14:53 AM
Surr: Toluene-d8	96.6	80 - 120		%Rec	1	6/23/2021 12:14:53 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	6/23/2021 12:14:53 AM
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB
Mercury	ND	0.244		mg/Kg-dry	1	6/21/2021 12:40:37 PM
Total Metals by EPA Method 6020	<u>3</u>			Batch	ID:	32686 Analyst: EH
Arsenic	5.45	0.104		mg/Kg-dry	1	6/23/2021 3:54:46 PM
Barium	75.9	0.520		mg/Kg-dry	1	6/21/2021 6:59:30 PM
Cadmium	ND	0.173		mg/Kg-dry	1	6/21/2021 6:59:30 PM
Chromium	38.1	0.347		mg/Kg-dry	1	6/21/2021 6:59:30 PM
Lead	16.9	0.173		mg/Kg-dry	1	6/22/2021 5:59:12 PM
Selenium	1.22	0.173		mg/Kg-dry	1	6/23/2021 3:54:46 PM
Silver	ND	0.130		mg/Kg-dry	1	6/21/2021 6:59:30 PM
Sample Moisture (Percent Moistur	<u>e)</u>			Batch	ID:	R68002 Analyst: OK
Percent Moisture	8.44			wt%	1	6/17/2021 10:24:13 AM



 Work Order:
 2106281

 Date Reported:
 7/2/2021

Client: ATC Group Services, Inc.				Collection	Dat	te: 6/15/2021 12:10:00 PM
Project: City of Seattle						
I ab ID: 2106281-015				Matrix: Sc	hil	
Client Sample ID: SB4-1'						
	Desert		0	11		
Analyses	Result	RL	Quai	Units	DF	- Date Analyzed
Diesel and Heavy Oil by NWTPH-D	<u>x/Dx Ext.</u>			Batch	ID:	32714 Analyst: MM
Diesel (Fuel Oil)	ND	47.6		mg/Kg-dry	1	6/22/2021 12:29:08 AM
Heavy Oil	ND	95.2		mg/Kg-dry	1	6/22/2021 12:29:08 AM
Total Petroleum Hydrocarbons	ND	143		mg/Kg-dry	1	6/22/2021 12:29:08 AM
Surr: 2-Fluorobiphenyl	77.7	50 - 150		%Rec	1	6/22/2021 12:29:08 AM
Surr: o-Terphenyl	83.3	50 - 150		%Rec	1	6/22/2021 12:29:08 AM
Polyaromatic Hydrocarbons by EP	A Method	<u>8270 (SIM)</u>		Batch	ID:	32676 Analyst: SB
Nanhthalene	ND	18.8		ua/Ka-drv	1	6/17/2021 9·56·52 AM
2-Methylnanhthalene	ND	18.8		ug/Kg-dry	1	6/17/2021 9:56:52 AM
1-Methylnaphthalene	ND	18.8		ug/Kg-dry	1	6/17/2021 9:56:52 AM
Acenanthylene	ND	18.8		ug/Kg-dry	1	6/17/2021 9:56:52 AM
Acenaphthene	ND	18.8		µg/Kg-dry	1	6/17/2021 0:56:52 AM
Flueropo		10.0		µg/Kg-dry	1	6/17/2021 9:50:52 AM
Phononthrono		27.6		µg/Kg-ury	1	6/17/2021 9:50:52 AM
		37.0		µg/Kg-uiy	1	0/17/2021 9:50:52 AM
	ND	37.0		µg/Kg-ary	1	6/17/2021 9:58:52 AM
Fluoranthene	ND	37.6		µg/kg-ary	1	6/17/2021 9:56:52 AM
Pyrene	ND	37.6		µg/ĸg-ary	1	6/17/2021 9:56:52 AM
Benz(a)anthracene	ND	18.8		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Chrysene	ND	37.6		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Benzo(b)fluoranthene	ND	18.8		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Benzo(k)fluoranthene	ND	18.8		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Benzo(a)pyrene	ND	18.8		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Indeno(1,2,3-cd)pyrene	ND	37.6		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Dibenz(a,h)anthracene	ND	37.6		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Benzo(g,h,i)perylene	ND	18.8		µg/Kg-dry	1	6/17/2021 9:56:52 AM
Surr: 2-Fluorobiphenyl	96.2	19 - 135		%Rec	1	6/17/2021 9:56:52 AM
Surr: Terphenyl-d14 (surr)	121	42.9 - 156		%Rec	1	6/17/2021 9:56:52 AM
Gasoline by NWTPH-Gx				Batch	ID:	32743 Analyst: CR
Gasoline	ND	5.67		mg/Ka-drv	1	6/23/2021 12:45:26 AM
Gasoline Range Organics (C6-C12)	20.8	5.67		ma/Ka-drv	1	6/23/2021 12:45:26 AM
Surr: Toluene-d8	97.2	65 - 135		%Rec	1	6/23/2021 12:45:26 AM
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	6/23/2021 12:45:26 AM
	102	00 - 100		/01/00	1	0/20/2021 12.40.20 AM

NOTES:

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Detection is from single, non-target analyte.



Client: ATC Group Services, Inc.				Collection	Dat	te: 6/15/2021 12:10:00 PM
Lab ID: 2106281-015				Matrix: So	oil	
Client Sample ID: SB4-1'						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EF	PA Method	<u>8260D</u>		Batch	ID:	32743 Analyst: CR
Benzene	ND	0.0227		mg/Kg-dry	1	6/23/2021 12:45:26 AM
Toluene	ND	0.0340		mg/Kg-dry	1	6/23/2021 12:45:26 AM
Ethylbenzene	ND	0.0283		mg/Kg-dry	1	6/23/2021 12:45:26 AM
m,p-Xylene	ND	0.0567		mg/Kg-dry	1	6/23/2021 12:45:26 AM
o-Xylene	ND	0.0283		mg/Kg-dry	1	6/23/2021 12:45:26 AM
Surr: Dibromofluoromethane	92.4	80 - 120		%Rec	1	6/23/2021 12:45:26 AM
Surr: Toluene-d8	95.7	80 - 120		%Rec	1	6/23/2021 12:45:26 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	6/23/2021 12:45:26 AM
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB
Mercury	ND	0.238		mg/Kg-dry	1	6/21/2021 12:45:34 PM
Total Metals by EPA Method 6020B				Batch	ID:	32686 Analyst: EH
Arsenic	4.91	0.105		mg/Kg-dry	1	6/23/2021 4:00:20 PM
Barium	90.1	0.526		mg/Kg-dry	1	6/22/2021 6:04:45 PM
Cadmium	ND	0.175		mg/Kg-dry	1	6/21/2021 7:16:14 PM
Chromium	28.0	0.351		mg/Kg-dry	1	6/22/2021 6:04:45 PM
Lead	4.05	0.175		mg/Kg-dry	1	6/22/2021 6:04:45 PM
Selenium	0.935	0.175		mg/Kg-dry	1	6/23/2021 4:00:20 PM
Silver	ND	0.132		mg/Kg-dry	1	6/21/2021 7:16:14 PM
Sample Moisture (Percent Moisture	<u>e)</u>			Batch	ID:	R68016 Analyst: OK
Percent Moisture	9.52			wt%	1	6/17/2021 2:18:19 PM



 Work Order:
 2106281

 Date Reported:
 7/2/2021

Client: ATC Group Services, Inc.				Collection Date: 6/15/2021 1:25:00 PM			
Project: City of Seattle							
Lab ID: 2106281-021				Matrix: Sc	hil		
Client Sample ID: SB5-5'							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	
Diesel and Heavy Oil by NWTPH-I	Dx/Dx Ext.			Batch	n ID:	32714 Analyst: MM	
Diesel (Fuel Oil)	ND	73.2		mg/Kg-dry	1	6/22/2021 12:41:51 AM	
Heavy Oil	ND	146		mg/Kg-dry	1	6/22/2021 12:41:51 AM	
Total Petroleum Hydrocarbons	ND	220		mg/Kg-dry	1	6/22/2021 12:41:51 AM	
Surr: 2-Fluorobiphenyl	86.3	50 - 150		%Rec	1	6/22/2021 12:41:51 AM	
Surr: o-Terphenyl	90.8	50 - 150		%Rec	1	6/22/2021 12:41:51 AM	
Polyaromatic Hydrocarbons by E	PA Method	<u>8270 (SIM)</u>		Batch	n ID:	32676 Analyst: SB	
Naphthalene	ND	27.5		ua/Ka-drv	1	6/17/2021 10:18:20 AM	
2-Methylnaphthalene	ND	27.5		ua/Ka-dry	1	6/17/2021 10:18:20 AM	
1-Methylnaphthalene	ND	27.5		ua/Ka-dry	1	6/17/2021 10:18:20 AM	
Acenanthylene	ND	27.5		ug/Kg-dry	1	6/17/2021 10:18:20 AM	
Acenaphthene	ND	27.5		ua/Ka-dry	1	6/17/2021 10:18:20 AM	
Fluorene	ND	27.5		ug/Kg-dry	1	6/17/2021 10:18:20 AM	
Phenanthrene	ND	55.0		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Anthracene		55.0		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Fluoronthono		55.0		µg/Kg-ury	1	6/17/2021 10:18:20 AM	
Pirone		55.0		µg/Kg-ury	1	6/17/2021 10:18:20 AM	
	ND	55.U		µg/Kg-dry	1	6/17/2021 10.18.20 AM	
	ND	27.5		µg/Kg-dry	1	6/17/2021 10.18.20 AM	
	ND	55.0		µg/kg-ary	1	6/17/2021 10:18:20 AM	
Benzo(b)fluoranthene	ND	27.5		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Benzo(k)fluoranthene	ND	27.5		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Benzo(a)pyrene	ND	27.5		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Indeno(1,2,3-cd)pyrene	ND	55.0		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Dibenz(a,h)anthracene	ND	55.0		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Benzo(g,h,i)perylene	ND	27.5		µg/Kg-dry	1	6/17/2021 10:18:20 AM	
Surr: 2-Fluorobiphenyl	64.1	19 - 135		%Rec	1	6/17/2021 10:18:20 AM	
Surr: Terphenyl-d14 (surr)	76.1	42.9 - 156		%Rec	1	6/17/2021 10:18:20 AM	
Gasoline by NWTPH-Gx				Batch	n ID:	32743 Analyst: CR	
Gasoline	ND	8.74		mg/Kg-dry	1	6/23/2021 1:16:02 AM	
Surr: Toluene-d8	98.3	65 - 135		%Rec	1	6/23/2021 1:16:02 AM	
Surr: 4-Bromofluorobenzene	102	65 - 135		%Rec	1	6/23/2021 1:16:02 AM	
Volatile Organic Compounds by I	EPA Method	8260D		Batch	n ID:	32743 Analyst: CR	
Benzene	ND	0.0350		mg/Kg-dry	1	6/23/2021 1:16:02 AM	
Toluene	ND	0.0525		mg/Kg-dry	1	6/23/2021 1:16:02 AM	

Revision v1



Client: ATC Group Services, Inc.	. Collection Date: 6/15/2021 1:25:00 PM						
Project: City of Seattle							
Lab ID: 2106281-021				Matrix: Sc	oil		
Client Sample ID: SB5-5'							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	
Volatile Organic Compounds by El	PA Method	8260D		Batch	ID:	32743 Analyst: CR	
Ethylbenzene	ND	0.0437		mg/Kg-dry	1	6/23/2021 1:16:02 AM	
m,p-Xylene	ND	0.0874		mg/Kg-dry	1	6/23/2021 1:16:02 AM	
o-Xylene	ND	0.0437		mg/Kg-dry	1	6/23/2021 1:16:02 AM	
Surr: Dibromofluoromethane	92.2	80 - 120		%Rec	1	6/23/2021 1:16:02 AM	
Surr: Toluene-d8	95.8	80 - 120		%Rec	1	6/23/2021 1:16:02 AM	
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	6/23/2021 1:16:02 AM	
Mercury by EPA Method 7471				Batch	ID:	32716 Analyst: LB	
Mercury	ND	0.375		mg/Kg-dry	1	6/21/2021 12:47:10 PM	
Total Metals by EPA Method 6020E	<u>3</u>			Batch	ID:	32686 Analyst: EH	
Arsenic	8.50	0.145		mg/Kg-dry	1	6/23/2021 4:05:55 PM	
Barium	107	0.725		mg/Kg-dry	1	6/22/2021 6:10:18 PM	
Cadmium	0.316	0.242		mg/Kg-dry	1	6/22/2021 6:10:18 PM	
Chromium	30.8	0.483		mg/Kg-dry	1	6/22/2021 6:10:18 PM	
Lead	18.6	0.242		mg/Kg-dry	1	6/22/2021 6:10:18 PM	
Selenium	2.44	0.242		mg/Kg-dry	1	6/23/2021 4:05:55 PM	
Silver	ND	0.181		mg/Kg-dry	1	6/21/2021 7:21:48 PM	
Sample Moisture (Percent Moisture	<u>e)</u>			Batch	ID:	R68016 Analyst: OK	
Percent Moisture	38.2			wt%	1	6/17/2021 2:18:19 PM	



Client: ATC Group Services, Inc. Project: City of Seattle	oup Services, Inc. Collection Date: 6/15/2021								
Lab ID: 2106281-025				Matrix: G	iroun	dwater			
Analyses	Result	RL	Qual	Units	DF	Date Analyzed			
Diesel and Heavy Oil by NWTPH-D	x/Dx Ext.			Batc	h ID:	32722 Analyst: MM			
Diesel (Fuel Oil)	ND	99.4		μg/L	1	6/22/2021 4:04:11 PM			
Heavy Oil	751	99.4		µg/L	1	6/22/2021 4:04:11 PM			
Total Petroleum Hydrocarbons	751	199		µg/L	1	6/22/2021 4:04:11 PM			
Surr: 2-Fluorobiphenyl	76.4	50 - 150		%Rec	1	6/22/2021 4:04:11 PM			
Surr: o-Terphenyl	64.1	50 - 150		%Rec	1	6/22/2021 4:04:11 PM			
Polyaromatic Hydrocarbons by EF	A Method	<u>8270 (SIM)</u>		Batc	h ID:	32680 Analyst: SB			
Naphthalene	0.128	0.0986		µg/L	1	6/17/2021 6:43:21 PM			
2-Methylnaphthalene	ND	0.0986		µg/L	1	6/17/2021 6:43:21 PM			
1-Methylnaphthalene	ND	0.0986		µg/L	1	6/17/2021 6:43:21 PM			
Acenaphthylene	ND	0.0986		µg/L	1	6/17/2021 6:43:21 PM			
Acenaphthene	0.126	0.0986		µg/L	1	6/17/2021 6:43:21 PM			
Fluorene	ND	0.0986		ua/L	1	6/17/2021 6:43:21 PM			
Phenanthrene	ND	0.0986		ua/L	1	6/17/2021 6:43:21 PM			
Anthracene	ND	0.0986		ua/L	1	6/17/2021 6:43:21 PM			
Fluoranthene	ND	0.0986		µg/=	1	6/17/2021 6:43:21 PM			
Pyrene	ND	0.0986		μα/l	1	6/17/2021 6·43·21 PM			
Benz(a)anthracene	ND	0.0986		μα/l	1	6/17/2021 6·43·21 PM			
Chrysene	ND	0.0986		µg/=	1	6/17/2021 6:43:21 PM			
Benzo(h)fluoranthene	ND	0.0986		µg/=	1	6/17/2021 6:43:21 PM			
Benzo(k)fluoranthene	ND	0.0000		µg/⊑ ug/l	1	6/17/2021 6:43:21 PM			
Benzo(a)pyrene	ND	0.0986		µg/⊑ ua/l	1	6/17/2021 6:43:21 PM			
Indeno $(1, 2, 3)$ -cd)pyrene	ND	0.0986		µg/=	1	6/17/2021 6:43:21 PM			
Dibenz(a b)anthracene	ND	0.0000		µg/⊑ ug/l	1	6/17/2021 6:43:21 PM			
Benzo(a h i)nervlene	ND	0.0986		µg/⊑ ug/l	1	6/17/2021 6:43:21 PM			
Surr: 2-Eluorobiobenvl	84.8	33.2 - 139		vg/⊏ %Rec	1	6/17/2021 6:43:21 PM			
Surr: Terphenyl-d14	50.1	24.6 - 136		%Rec	1	6/17/2021 6:43:21 PM			
Gasoline by NWTPH-Gx				Batc	h ID:	32688 Analyst: CR			
Gasoline	ND	50.0		ua/l	1	6/17/2021 10:37:23 PM			
Surr: Toluene-d8	100	65 - 135		%Rec	1	6/17/2021 10:37:23 PM			
Surr: 4-Bromofluorobenzene	93.9	65 - 135		%Rec	1	6/17/2021 10:37:23 PM			
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batc	h ID:	32688 Analyst: CR			
Benzene	ND	0.440		ua/l	1	6/17/2021 10:37:23 PM			
Toluene	ND	0.750		µa/L	1	6/17/2021 10:37:23 PM			
		0.700		~ 9 [,] –	•	3,, <u>202</u> , 10.01.201 M			



Client: ATC Group Services, Inc.	nc. Collection Date: 6/15/2021					
Project: City of Seattle						
Lab ID: 2106281-025				Matrix: G	roun	dwater
Client Sample ID: SB-1				-		
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batcl	n ID:	32688 Analyst: CR
Ethylbenzene	ND	0.400		µg/L	1	6/17/2021 10:37:23 PM
m,p-Xylene	ND	1.00		µa/L	1	6/17/2021 10:37:23 PM
o-Xylene	ND	0.500		μg/L	1	6/17/2021 10:37:23 PM
Surr: Dibromofluoromethane	96.6	80 - 120		%Rec	1	6/17/2021 10:37:23 PM
Surr: Toluene-d8	97.1	80 - 120		%Rec	1	6/17/2021 10:37:23 PM
Surr: 1-Bromo-4-fluorobenzene	95.0	80 - 120		%Rec	1	6/17/2021 10:37:23 PM
Mercury by EPA Method 245.1				Batcl	n ID:	32754 Analyst: LB
Mercury	0.174	0.100		µg/L	1	6/23/2021 4:41:33 PM
Dissolved Mercury by EPA Method	<u>l 245.1</u>			Batcl	n ID:	32737 Analyst: LB
Mercury	ND	0.100		µg/L	1	6/22/2021 3:43:09 PM
Dissolved Metals by EPA Method 2	<u>200.8</u>			Batcl	n ID:	32701 Analyst: EH
Arsenic	4.94	1.00		µg/L	1	6/23/2021 4:22:39 PM
Barium	4.81	1.50		μg/L	1	6/23/2021 4:22:39 PM
Cadmium	ND	0.125		µg/L	1	6/23/2021 12:17:39 AM
Chromium	1.20	0.750		µg/L	1	6/23/2021 4:22:39 PM
Lead	ND	0.500		µg/L	1	6/23/2021 12:17:39 AM
Selenium	ND	1.90		µg/L	1	6/23/2021 4:22:39 PM
Silver	ND	0.350		µg/L	1	6/23/2021 12:17:39 AM
Total Metals by EPA Method 200.8	<u>B</u>			Batcl	n ID:	32685 Analyst: EH
Arsenic	26.8	1.00		µg/L	1	6/22/2021 7:39:19 PM
Barium	77.6	2.50		μg/L	1	6/21/2021 7:55:17 PM
Cadmium	0.840	0.200		µg/L	1	6/21/2021 7:55:17 PM
Chromium	8.99	1.00		µg/L	1	6/21/2021 7:55:17 PM
Lead	3.20	0.500		μg/L	1	6/22/2021 7:39:19 PM
Selenium	ND	5.00		μg/L	1	6/21/2021 7:55:17 PM
Silver	ND	0.250		µg/L	1	6/21/2021 7:55:17 PM



Client: ATC Group Services, Inc.	ervices, Inc. Collection Date: 6/15/2021						
Lab ID: 2106281-026				Matrix: G	roun	dwater	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	
Diesel and Heavy Oil by NWTPH-	Dx/Dx Ext.			Batc	h ID:	32722 Analyst: MM	
Diesel (Fuel Oil)	ND	99.3		μg/L	1	6/22/2021 4:29:45 PM	
Heavy Oil	293	99.3		ua/L	1	6/22/2021 4:29:45 PM	
Total Petroleum Hydrocarbons	293	199		µg/= ua/L	1	6/22/2021 4:29:45 PM	
Surr: 2-Eluorobiphenvl	69.6	50 - 150		%Rec	. 1	6/22/2021 4:29:45 PM	
Surr: o-Terphenyl	69.8	50 - 150		%Rec	1	6/22/2021 4:29:45 PM	
Polyaromatic Hydrocarbons by E	PA Method	<u>8270 (SIM)</u>		Batc	h ID:	32680 Analyst: SB	
Naphthalene	ND	0.0991		ua/L	1	6/17/2021 7:05:01 PM	
2-Methylnaphthalene	ND	0.0991		ua/L	1	6/17/2021 7:05:01 PM	
1-Methylnaphthalene	ND	0.0991		ua/L	1	6/17/2021 7:05:01 PM	
Acenaphthylene	ND	0.0991		µg/= ua/L	1	6/17/2021 7:05:01 PM	
Acenaphthene	ND	0.0991		ua/L	1	6/17/2021 7:05:01 PM	
Fluorene	ND	0.0991		µg/=	. 1	6/17/2021 7:05:01 PM	
Phenanthrene	ND	0.0991		µg/=	. 1	6/17/2021 7:05:01 PM	
Anthracene	ND	0.0991		µg/=	1	6/17/2021 7:05:01 PM	
Fluoranthene		0.0991		µg/⊑ ug/l	1	6/17/2021 7:05:01 PM	
Pyrene		0.0001		µg/⊑ ug/l	1	6/17/2021 7:05:01 PM	
Benz(a)anthracene		0.0001		µg/⊑ ug/l	1	6/17/2021 7:05:01 PM	
Chrysene		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Benzo(b)fluoranthene		0.0001		µg/L	1	6/17/2021 7:05:01 PM	
Benzo(k)fluoranthene		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Benzo(a)nyrene		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Indeno(1,2,3-cd)pyrene		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Dibonz(a,b)anthracano		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Benzo(a h i)pervlene		0.0991		µg/∟ ug/l	1	6/17/2021 7:05:01 PM	
Surr: 2-Eluorobinbenvl	81.6	33.2 - 130		µg/∟ %Rec	1	6/17/2021 7:05:01 PM	
Surr: Terphenyl-d14	48.2	24.6 - 136		%Rec	1	6/17/2021 7:05:01 PM	
Gasoline by NWTPH-Gx				Batc	h ID:	32688 Analyst: CR	
Gasoline	ND	50.0		ug/l	1	6/17/2021 11:08:04 PM	
Surr: Toluene-d8	101	65 - 135		∽9′⊏ %Rec	1	6/17/2021 11:08:04 PM	
Surr: 4-Bromofluorobenzene	94.5	65 - 135		%Rec	1	6/17/2021 11:08:04 PM	
Volatile Organic Compounds by	EPA Method	8260D		Batc	h ID:	32688 Analyst: CR	
Benzene	ND	0.440		µg/L	1	6/17/2021 11:08:04 PM	
Toluene	ND	0.750		μg/L	1	6/17/2021 11:08:04 PM	
				1.5			



Client: ATC Group Services, Inc.	c. Collection Date: 6/15/2021					
Project: City of Seattle						
Lab ID: 2106281-026				Matrix: G	roun	dwater
Client Sample ID: SB-2						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batcl	n ID:	32688 Analyst: CR
Ethylbenzene	ND	0.400		µg/L	1	6/17/2021 11:08:04 PM
m,p-Xylene	ND	1.00		µa/L	1	6/17/2021 11:08:04 PM
o-Xylene	ND	0.500		μg/L	1	6/17/2021 11:08:04 PM
Surr: Dibromofluoromethane	96.5	80 - 120		%Rec	1	6/17/2021 11:08:04 PM
Surr: Toluene-d8	96.5	80 - 120		%Rec	1	6/17/2021 11:08:04 PM
Surr: 1-Bromo-4-fluorobenzene	95.6	80 - 120		%Rec	1	6/17/2021 11:08:04 PM
Mercury by EPA Method 245.1				Batcl	n ID:	32754 Analyst: LB
Mercury	0.194	0.100		µg/L	1	6/23/2021 4:48:21 PM
Dissolved Mercury by EPA Method	<u>l 245.1</u>			Batcl	n ID:	32737 Analyst: LB
Mercury	ND	0.100		µg/L	1	6/22/2021 3:44:50 PM
Dissolved Metals by EPA Method 2	<u>200.8</u>			Batcl	n ID:	32701 Analyst: EH
Arsenic	3.77	1.00		µg/L	1	6/23/2021 4:28:14 PM
Barium	27.4	1.50		µg/L	1	6/23/2021 4:28:14 PM
Cadmium	ND	0.125		µg/L	1	6/23/2021 12:23:13 AM
Chromium	ND	0.750		µg/L	1	6/23/2021 4:28:14 PM
Lead	ND	0.500		µg/L	1	6/23/2021 12:23:13 AM
Selenium	ND	1.90		µg/L	1	6/23/2021 12:23:13 AM
Silver	ND	0.350		µg/L	1	6/23/2021 12:23:13 AM
Total Metals by EPA Method 200.8	<u>1</u>			Batcl	n ID:	32685 Analyst: EH
Arsenic	21.7	1.00		µg/L	1	6/22/2021 7:44:53 PM
Barium	179	2.50		μ <u>α</u> /L	1	6/21/2021 8:00:51 PM
Cadmium	ND	0.200		μg/L	1	6/21/2021 8:00:51 PM
Chromium	9.25	1.00		μg/L	1	6/21/2021 8:00:51 PM
Lead	3.96	0.500		μg/L	1	6/22/2021 7:44:53 PM
Selenium	ND	5.00		µg/L	1	6/21/2021 8:00:51 PM
Silver	ND	0.250		µg/L	1	6/21/2021 8:00:51 PM



Normality Normality Matrix: Groundwater Client Sample ID: SB-3: Analyses Result RL Qual Units DF Date Analyzed Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32722 Analysi: MM Diesel (Fuel Oil) ND 99.5 µg/L 1 6/22/2021 4:55:21 PM Maint String 676 99.5 µg/L 1 6/22/2021 4:55:21 PM String Floridophoneyi 90.0 50-150 %Rec 1 6/22/2021 4:55:21 PM String Floridophoneyi 87.0 50-150 %Rec 1 6/22/2021 4:55:21 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch ID: 32680 Analyst: SB Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Maphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Maphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Maphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM	Client: ATC Group Services, Inc.	, Inc. Collection Date: 6/15/2021							
Analyses Result RL Qual Units DF Date Analyzed Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch ID: 32722 Analysis: MM Diesel (Fuel Oil) ND 99.5 µg/L 1 6/22/2021 455:21 PM Heavy Oil 676 99.5 µg/L 1 6/22/2021 455:21 PM Sur: 2-Fluorobiphenyl 90.0 50 - 150 %Rec 1 6/22/2021 455:21 PM Sur: 2-Fluorobiphenyl 90.0 50 - 150 %Rec 1 6/22/2021 455:21 PM Sur: 0-Terphenyl 87.0 50 - 150 %Rec 1 6/22/2021 455:21 PM Nur: 0-Terphenyl 87.0 50 - 150 %Rec 1 6/22/2021 455:21 PM Aughtshalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Aceraphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Aceraphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Puene ND 0.0987 µg/L 1 6/1	Lab ID: 2106281-027				Matrix: G	roun	dwater		
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. Batch D: 3272 Analyst: MM Diesel (Fuel Oil) ND 99.5 µg/L 1 6/22/2021 45521 PM Heavy Oil 676 99.5 µg/L 1 6/22/2021 45521 PM Str:: 2-Fluorobiphenyl 90.0 50 - 150 %Rec 1 6/22/2021 45521 PM Str:: 2-Fluorobiphenyl 90.0 50 - 150 %Rec 1 6/22/2021 45521 PM Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Batch D: 32680 Analyst: SB Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:2631 PM 2-Metty/naphthalene ND 0.0987 µg/L 1 6/17/2021 7:2631 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:2631 PM Phorena ND 0.0987 µg/L 1 6/17/2021 7:2631 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:2631 PM Phorenathracene ND 0.0987 µg/L 1 6/17/2021 7:2631 PM P	Analyses	Result	RL	Qual	Units	DF	Date Analyzed		
Diesel (Fuel Oli) ND 99.5 µg/L 1 6/22/2021 4:55:21 PM Heavy Oli 676 99.5 µg/L 1 6/22/2021 4:55:21 PM Surr: 2-Terphenyl 87.0 50-150 %Rec 1 6/22/2021 4:55:21 PM Surr: 2-Terphenyl 87.0 50-150 %Rec 1 6/22/2021 4:55:21 PM Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenzenthrene ND 0.0987 µg/L 1	Diesel and Heavy Oil by NWTPH-D	0x/Dx Ext.			Batc	h ID:	32722 Analyst: MM		
Heavy Oil 676 99.5 µg/L 1 6/22/2021 4:55:21 PM Total Petroleum Hydrocarbons 746 199 µg/L 1 6/22/2021 4:55:21 PM Sur: 2-Terphenyl 87.0 50 - 150 %Rec 1 6/22/201 4:55:21 PM Sur: 2-Terphenyl 87.0 50 - 150 %Rec 1 6/22/201 4:55:21 PM Maphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1	Diesel (Fuel Oil)	ND	99.5		μg/L	1	6/22/2021 4:55:21 PM		
Total Petroleum Hydrocarbons 746 199 µg/L 1 6/22/2021 4:55:21 PM Surr: 2-Fluorobiphenyl 90.0 50 - 150 %Rec 1 6/22/2021 4:55:21 PM Surr: o-Terphenyl 87.0 50 - 150 %Rec 1 6/22/2021 4:55:21 PM Polyaromatic Hydrocarbons by EPA Method 3270 (SIM) Batch ID: 32680 Analyst: SB Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1<	Heavy Oil	676	99.5		ug/l	1	6/22/2021 4:55:21 PM		
Surr: 2-Fluorobiphenyl 90 10 50 97 1 62/22/221 4:55:21 PM Surr: c-Terphenyl 87.0 50 - 150 %Rec 1 62/22/221 4:55:21 PM Polyaromatic Hydrocarbons by EPA Method 3270 (SIM) Batch ID: 32680 Analyst: SB Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Aceraphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Aceraphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Aceraphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Prene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Prene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1	Total Petroleum Hydrocarbons	746	199		µg/=	1	6/22/2021 4:55:21 PM		
Sur: Dots Sort Sort Sur: Construction Constructin Construction	Surr: 2-Eluorobiohenvl	90.0	50 - 150		%Rec	1	6/22/2021 4·55·21 PM		
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM) Bath ID: 3260 Analyst: SB Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 1-Methynaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 1-Methynaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 1-Methynaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phranthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1	Surr: o-Terphenyl	87.0	50 - 150		%Rec	1	6/22/2021 4:55:21 PM		
Naphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 2-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 1-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pluoranthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)phthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 <	Polyaromatic Hydrocarbons by EF	PA Method	<u>8270 (SIM)</u>		Batc	h ID:	32680 Analyst: SB		
2-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM 1-Methylnaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phrenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1	Naphthalene	ND	0.0987		ua/L	1	6/17/2021 7:26:31 PM		
I-Methylaphthalene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Acenaphthylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Puranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1	2-Methylnaphthalene	ND	0.0987		ua/L	1	6/17/2021 7:26:31 PM		
Accenaptitylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Accenaptitylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)/fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)/fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)/fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeo(1,2,3-cd)pyrene ND 0.0987 µg/L	1-Methylnaphthalene	ND	0.0987		ua/l	1	6/17/2021 7:26:31 PM		
Accenaptification ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1	Acenaphthylene	ND	0.0987		µg/=	1	6/17/2021 7:26:31 PM		
Fluorene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1	Acenaphthene	ND	0.0987		µg/=	1	6/17/2021 7:26:31 PM		
Phenanthrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L	Fluorene	ND	0.0987		μα/l	1	6/17/2021 7:26:31 PM		
Anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Chrysene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: Tephenyl-d14 34:3 24:6 - 136 %Rec 1 6/17/2021 7:26:31 PM Surr: Tephenyl-d14 34:3	Phenanthrene	ND	0.0987		μα/l	1	6/17/2021 7·26:31 PM		
Fluoranthene ND 0.00037 µg/L 1 6/17/2021 7:26:31 PM Pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Chrysene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65:4 33:2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34:3 24:6 - 136 %Rec 1 6/17/2021 7:26:31 PM Surr: Toluene-d8	Anthracene	ND	0.0987		µg/=	1	6/17/2021 7:26:31 PM		
Notice ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Chrysene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Tephenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 1:38:46 PM Surr: Toluene-d8 <td>Fluoranthene</td> <td>ND</td> <td>0.0987</td> <td></td> <td>µg/⊑ ug/l</td> <td>1</td> <td>6/17/2021 7:26:31 PM</td>	Fluoranthene	ND	0.0987		µg/⊑ ug/l	1	6/17/2021 7:26:31 PM		
Index ND 0.03001 µg/L 1 6.11/2021 1.20.311 M Benz(a)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: Toluene-d8		ND	0.0987		µg/⊑ ug/l	1	6/17/2021 7:26:31 PM		
Description ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 </td <td>Benz(a)anthracene</td> <td>ND</td> <td>0.0987</td> <td></td> <td>µg/⊑ ug/l</td> <td>1</td> <td>6/17/2021 7:26:31 PM</td>	Benz(a)anthracene	ND	0.0987		µg/⊑ ug/l	1	6/17/2021 7:26:31 PM		
Benzo(b)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM	Chrysene		0.0987		µg/L ug/l	1	6/17/2021 7:26:31 PM		
Defact(0)/idofantmente ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(k)fluoranthene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA	Benzo(h)fluoranthene		0.0987		µg/∟ ug/l	1	6/17/2021 7:26:31 PM		
Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7/20/31 PM Benzo(a)pyrene ND 0.0987 µg/L 1 6/17/2021 7/26/31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7/26/31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7/26/31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7/26/31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7/26/31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7/26/31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7/26/31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 1/26/31 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440	Benze(k)flueranthene		0.0907		µg/∟	1	6/17/2021 7:26:31 PM		
Deriz0(a)pyrene ND 0.0307 µg/L 1 0/17/2021 7:26:31 PM Indeno(1,2,3-cd)pyrene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene	Benzo(a)pyrene		0.0907		µg/∟	1	6/17/2021 7:26:31 PM		
Indendi (1,2,0-cu) pyterie ND 0.03307 µg/L 1 6/17/2021 7:26:31 PM Dibenz(a,h)anthracene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline ND 50.0 µg/L 1 6/17/2021 7:26:31 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene	Indeno(1,2,3-cd)ovrene		0.0987		µg/∟ ug/l	1	6/17/2021 7:26:31 PM		
Dibeliz(a,i)altitudelie ND 0.0987 µg/L 1 0.17/2021 7.20.31 PM Benzo(g,h,i)perylene ND 0.0987 µg/L 1 6/17/2021 7:26:31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline by NWTPH-Gx Batch ID: 32688 Analyst: CR Gasoline ND 50.0 µg/L 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM	Dibonz(a, b)anthracono		0.0987		µg/∟ ug/l	1	6/17/2021 7:26:31 PM		
Benzene ND 0.0987 µg/L 1 6/17/2021 7.26.31 PM Surr: 2-Fluorobiphenyl 65.4 33.2 - 139 %Rec 1 6/17/2021 7:26:31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 7:26:31 PM Gasoline by NWTPH-Gx Batch ID: 32688 Analyst: CR Gasoline ND 50.0 µg/L 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM			0.0907		µg/∟	1	6/17/2021 7:20:31 FIVI		
Sur: 2-Productopprientyr 03.4 33.2 - 139 %Rec 1 0/17/2021 17.20.31 PM Surr: Terphenyl-d14 34.3 24.6 - 136 %Rec 1 6/17/2021 77.26.31 PM Gasoline by NWTPH-Gx Batch ID: 32688 Analyst: CR Gasoline ND 50.0 µg/L 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM	Surr: 2 Elucrobiobooud		0.0907		µy/∟ % Boo	1	0/17/2021 7:20:31 FIVI		
Batch ID: 32688Analyst: CRGasolineND 50.0 $\mu g/L$ 1 $6/17/2021$ $11:38:46$ PMSurr: Toluene-d899.7 $65 \cdot 135$ $\% Rec$ 1 $6/17/2021$ $11:38:46$ PMSurr: 4-Bromofluorobenzene93.1 $65 \cdot 135$ $\% Rec$ 1 $6/17/2021$ $11:38:46$ PMVolatile Organic Compounds by EPA Method 8260DBatch ID: 32688 Analyst: CRBenzeneND 0.440 $\mu g/L$ 1 $6/17/2021$ $11:38:46$ PMTolueneND 0.750 $\mu g/L$ 1 $6/17/2021$ $11:38:46$ PM	Sur: Zerhonolophenyi Sur: Terphenyi-d14	34.3	24.6 - 136		%Rec %Rec	1	6/17/2021 7:26:31 PM		
Gasoline ND 50.0 μg/L 1 6/17/2021 11:38:46 PM Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 μg/L 1 6/17/2021 11:38:46 PM MD 0.750 μg/L 1 6/17/2021 11:38:46 PM	Gasoline by NWTPH-Gx				Batc	h ID:	32688 Analyst: CR		
Surr: Toluene-d8 99.7 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM	Gasoline	ND	50.0		ug/l	1	6/17/2021 11:38:46 PM		
Surr: 4-Bromofluorobenzene 93.1 65 - 135 %Rec 1 6/17/2021 11:38:46 PM Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM	Surr: Toluene-d8	99.7	65 - 135		49/⊏ %Rec	1	6/17/2021 11:38:46 PM		
Volatile Organic Compounds by EPA Method 8260D Batch ID: 32688 Analyst: CR Benzene ND 0.440 µg/L 1 6/17/2021 11:38:46 PM Toluene ND 0.750 µg/L 1 6/17/2021 11:38:46 PM	Surr: 4-Bromofluorobenzene	93.1	65 - 135		%Rec	1	6/17/2021 11:38:46 PM		
BenzeneND0.440μg/L16/17/2021 11:38:46 PMTolueneND0.750μg/L16/17/2021 11:38:46 PM	Volatile Organic Compounds by E	PA Method	8260D		Batc	h ID:	32688 Analyst: CR		
Toluene ND 0.750 μg/L 1 6/17/2021 11:38:46 PM	Benzene	ND	0.440		µa/L	1	6/17/2021 11:38:46 PM		
	Toluene	ND	0.750		μg/L	1	6/17/2021 11:38:46 PM		



Client: ATC Group Services, Inc.			(Collectior	n Dat	t e: 6/15/2021
Project: City of Seattle						
Lab ID: 2106281-027				Matrix: G	roun	dwater
Client Sample ID: SB-3						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batc	h ID:	32688 Analyst: CR
Ethylbenzene	ND	0.400		µg/L	1	6/17/2021 11:38:46 PM
m,p-Xylene	ND	1.00		µg/L	1	6/17/2021 11:38:46 PM
o-Xylene	ND	0.500		µg/L	1	6/17/2021 11:38:46 PM
Surr: Dibromofluoromethane	96.6	80 - 120		%Rec	1	6/17/2021 11:38:46 PM
Surr: Toluene-d8	96.0	80 - 120		%Rec	1	6/17/2021 11:38:46 PM
Surr: 1-Bromo-4-fluorobenzene	94.2	80 - 120		%Rec	1	6/17/2021 11:38:46 PM
Mercury by EPA Method 245.1				Batc	h ID:	32754 Analyst: LB
Mercury	1.20	0.100		µg/L	1	6/23/2021 4:50:02 PM
Dissolved Mercury by EPA Method	<u> 245.1</u>			Batc	h ID:	32737 Analyst: LB
Mercury	ND	0.100		µg/L	1	6/22/2021 3:46:31 PM
Dissolved Metals by EPA Method 2	200.8			Batc	h ID:	32701 Analyst: EH
Arsenic	14.9	1.00		µg/L	1	6/23/2021 4:33:48 PM
Barium	15.8	1.50		µg/L	1	6/23/2021 4:33:48 PM
Cadmium	ND	0.125		µg/L	1	6/23/2021 12:28:46 AM
Chromium	0.855	0.750		µg/L	1	6/23/2021 4:33:48 PM
Lead	ND	0.500		µg/L	1	6/23/2021 12:28:46 AM
Selenium	ND	1.90		µg/L	1	6/23/2021 12:28:46 AM
Silver	ND	0.350		µg/L	1	6/23/2021 12:28:46 AM
Total Metals by EPA Method 200.8	<u>1</u>			Batc	h ID:	32685 Analyst: EH
Arsenic	61.3	1.00		µq/L	1	6/21/2021 2:44:01 PM
Barium	694	2.50		μg/L	1	6/21/2021 2:44:01 PM
Cadmium	0.700	0.200		μg/L	1	6/21/2021 2:44:01 PM
Chromium	17.9	1.00		μg/L	1	6/21/2021 2:44:01 PM
Lead	4.33	0.500		µg/L	1	6/21/2021 2:44:01 PM
Selenium	13.7	5.00		µg/L	1	6/21/2021 2:44:01 PM
Silver	ND	0.250		µg/L	1	6/21/2021 2:44:01 PM



Client: ATC Group Services, Ir	IC.	Collection Date: 6/15/2021								
Project: City of Seattle										
Lab ID: 2106281-028				Matrix: G	round	vater				
Client Sample ID: SB-4										
Analyses	Result	RL	Qual	Units	DF	Date Analyzed				
Diesel and Heavy Oil by NWTP	H-Dx/Dx Ext.			Batc	h ID: 3	2722 Analyst: MM				
Diesel (Fuel Oil)	ND	98.8		ua/l	1	6/22/2021 5·21·07 PM				
Heavy Oil	ND	98.8		µg/=	1	6/22/2021 5:21:07 PM				
Total Petroleum Hydrocarbons		198		µg/⊑ ua/l	1	6/22/2021 5:21:07 PM				
Surr: 2-Fluorobinbenvl	70.4	50 - 150		v9/⊏ %Rec	1	6/22/2021 5:21:07 PM				
Surr: o-Terphenyl	75.1	50 - 150 50 - 150		%Rec	1	6/22/2021 5:21:07 PM				
Polyaromatic Hydrocarbons by	y EPA Method	<u>8270 (SIM)</u>		Batc	h ID: 3	2680 Analyst: SB				
Nanhthalene	ND	0 0985		ua/l	1	6/17/2021 7·47·58 PM				
2-Methylpaphthalene		0.0300		μg/L μα/Ι	י 1	6/17/2021 7.47.58 DM				
1-Methylnaphthalene		0.0985		µg/L	1	6/17/2021 7:47:58 PM				
		0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Acenaphthene		0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Fluorene		0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Phononthrono		0.0985		µg/L	1	6/17/2021 7:47:58 DM				
Anthropopo		0.0905		µg/L	1	6/17/2021 7.47.50 FM				
		0.0985		µg/∟ 	1	0/17/2021 7.47.30 FW				
Fluoranthene	ND	0.0985		µg/∟	1	0/17/2021 7:47:50 PW				
	ND	0.0985		µg/∟	1	6/17/2021 7:47:58 PIM				
Benz(a)anthracene	ND	0.0985		µg/∟	1	6/17/2021 7:47:58 PM				
Chrysene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Benzo(b)fluoranthene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Benzo(k)fluoranthene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Benzo(a)pyrene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Indeno(1,2,3-cd)pyrene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Dibenz(a,h)anthracene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Benzo(g,h,i)perylene	ND	0.0985		µg/L	1	6/17/2021 7:47:58 PM				
Surr: 2-Fluorobiphenyl	65.3	33.2 - 139		%Rec	1	6/17/2021 7:47:58 PM				
Surr: Terphenyl-d14	31.9	24.6 - 136		%Rec	1	6/17/2021 7:47:58 PM				
Gasoline by NWTPH-Gx				Batc	h ID: 3	2688 Analyst: CR				
Gasoline	ND	50.0		μg/L	1	6/18/2021 12:09:18 AM				
Surr: Toluene-d8	100	65 - 135		%Rec	1	6/18/2021 12:09:18 AM				
Surr: 4-Bromofluorobenzene	94.1	65 - 135		%Rec	1	6/18/2021 12:09:18 AM				
Volatile Organic Compounds k	oy EPA Method	8260D		Batc	h ID: 3	2688 Analyst: CR				
Benzene	ND	0.440		µg/L	1	6/18/2021 12:09:18 AM				
Toluene	ND	0.750		ua/L	1	6/18/2021 12:09:18 AM				



Client: ATC Group Services, Inc.	c. Collection Date: 6/15/2021					
Project: City of Seattle						
Lab ID: 2106281-028				Matrix: G	roun	dwater
Client Sample ID: SB-4						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batcl	n ID:	32688 Analyst: CR
Ethylbenzene	ND	0.400		µg/L	1	6/18/2021 12:09:18 AM
m,p-Xylene	ND	1.00		µg/L	1	6/18/2021 12:09:18 AM
o-Xylene	ND	0.500		μg/L	1	6/18/2021 12:09:18 AM
Surr: Dibromofluoromethane	97.7	80 - 120		%Rec	1	6/18/2021 12:09:18 AM
Surr: Toluene-d8	96.3	80 - 120		%Rec	1	6/18/2021 12:09:18 AM
Surr: 1-Bromo-4-fluorobenzene	95.2	80 - 120		%Rec	1	6/18/2021 12:09:18 AM
Mercury by EPA Method 245.1				Batcl	n ID:	32754 Analyst: LB
Mercury	0.436	0.100		µg/L	1	6/23/2021 4:51:43 PM
Dissolved Mercury by EPA Method	<u>l 245.1</u>			Batcl	n ID:	32737 Analyst: LB
Mercury	ND	0.100		µg/L	1	6/22/2021 3:51:37 PM
Dissolved Metals by EPA Method 2	<u>200.8</u>			Batcl	n ID:	32701 Analyst: EH
Arsenic	4.79	1.00		µg/L	1	6/23/2021 4:39:23 PM
Barium	7.75	1.50		µg/L	1	6/23/2021 4:39:23 PM
Cadmium	ND	0.125		µg/L	1	6/23/2021 12:34:19 AM
Chromium	ND	0.750		µg/L	1	6/23/2021 12:34:19 AM
Lead	ND	0.500		µg/L	1	6/23/2021 12:34:19 AM
Selenium	ND	1.90		µg/L	1	6/23/2021 12:34:19 AM
Silver	ND	0.350		µg/L	1	6/23/2021 12:34:19 AM
Total Metals by EPA Method 200.8	<u>B</u>			Batcl	n ID:	32685 Analyst: EH
Arsenic	41.9	1.00		µg/L	1	6/22/2021 7:50:26 PM
Barium	605	2.50		µg/L	1	6/21/2021 8:06:26 PM
Cadmium	0.516	0.200		μg/L	1	6/21/2021 8:06:26 PM
Chromium	39.5	1.00		μg/L	1	6/21/2021 8:06:26 PM
Lead	5.29	0.500		µg/L	1	6/22/2021 7:50:26 PM
Selenium	13.8	5.00		µg/L	1	6/22/2021 7:50:26 PM
Silver	ND	0.250		µg/L	1	6/21/2021 8:06:26 PM



 Work Order:
 2106281

 Date Reported:
 7/2/2021

Client: ATC Group Services, Ir	าC.	Collection Date: 6/15/2021 1:50:00 PM							
Lab ID: 2106281-029				Matrix: G	iroun	dwater			
Analyses	Result	RL	Qual	Units	DF	Date Analy	zed		
Diesel and Heavy Oil by NWTF	PH-Dx/Dx Ext.			Batc	h ID:	32722 Analys	t: MM		
Diesel (Fuel Oil)	ND	98.9		µg/L	1	6/22/2021 5:46:4	43 PM		
Heavy Oil	ND	98.9		µg/L	1	6/22/2021 5:46:4	43 PM		
Total Petroleum Hydrocarbons	ND	198		µg/L	1	6/22/2021 5:46:4	43 PM		
Surr: 2-Fluorobiphenyl	66.4	50 - 150		%Rec	1	6/22/2021 5:46:4	43 PM		
Surr: o-Terphenyl	71.3	50 - 150		%Rec	1	6/22/2021 5:46:4	43 PM		
Polyaromatic Hydrocarbons b	y EPA Method	<u>8270 (SIM)</u>		Batc	h ID:	32680 Analys	t: SB		
Naphthalene	ND	0.0991		μg/L	1	6/17/2021 8:09:4	41 PM		
2-Methylnaphthalene	ND	0.0991		µg/L	1	6/17/2021 8:09:4	41 PM		
1-Methylnaphthalene	ND	0.0991		µg/L	1	6/17/2021 8:09:4	41 PM		
Acenaphthylene	ND	0.0991		µg/L	1	6/17/2021 8:09:4	41 PM		
Acenaphthene	ND	0.0991		ua/L	1	6/17/2021 8:09:4	41 PM		
Fluorene	ND	0.0991		ua/L	1	6/17/2021 8:09:4	41 PM		
Phenanthrene	ND	0.0991		ua/L	1	6/17/2021 8:09:4	41 PM		
Anthracene	ND	0.0991		ua/L	1	6/17/2021 8:09:4	41 PM		
Fluoranthene	ND	0.0991		ua/l	1	6/17/2021 8:09:4	41 PM		
Pyrene	ND	0.0991		µg/=	1	6/17/2021 8:09:	41 PM		
Benz(a)anthracene	ND	0.0991		µg/=	1	6/17/2021 8:09:	41 PM		
Chrysene	ND	0.0001		µg/=	1	6/17/2021 8:09:	41 PM		
Benzo(h)fluoranthene		0.0001		µg/⊑ ua/l	1	6/17/2021 8:09:	41 PM		
Benzo(k)fluoranthene		0.0001		µg/⊑ ug/l	1	6/17/2021 8:09:	41 PM		
Benzo(a)nyrene		0.0001		µg/L	1	6/17/2021 8:09:	41 PM		
Indepo(1.2.3-cd)nyrene		0.0001		µg/⊑ ug/l	1	6/17/2021 8:09:	41 PM		
Dibenz(a b)anthracene		0.0001		µg/⊑ ug/l	1	6/17/2021 8:09:	41 PM		
Benzo(a h i)pervlene		0.0001		µg/⊑ ug/l	1	6/17/2021 8:09:	41 PM		
Surr: 2-Fluorobinbenyl	47.9	33.2 - 130		%Rec	1	6/17/2021 8:09:	41 PM		
Surr: Terphenyl-d14	30.9	24.6 - 136		%Rec	1	6/17/2021 8:09:4	41 PM		
Gasoline by NWTPH-Gx				Batc	h ID:	32688 Analys	t: CR		
Casalina		50.0			4	6/48/0004 40 00			
	ND 100	50.0		µg/∟ % Dee	1	6/18/2021 12:39			
	100	00 - 130		%Rec	T A	6/18/2021 12:39			
Surr: 4-Bromotiuorobenzene	93.9	65 - 135		%Rec	1	6/18/2021 12:39	1:55 AM		
Volatile Organic Compounds I	by EPA Method	8260D		Batc	h ID:	32688 Analys	t: CR		
Benzene	ND	0.440		µg/L	1	6/18/2021 12:39	:55 AM		
Toluene	ND	0.750		µg/L	1	6/18/2021 12:39	:55 AM		

Revision v1



Client: ATC Group Services, Inc.				Collectior	n Da	te: 6/15/2021 1:50:00 PM
Lab ID: 2106281-029				Matrix: G	roun	dwater
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260D</u>		Batc	h ID:	32688 Analyst: CR
Ethylbenzene	ND	0.400		µg/L	1	6/18/2021 12:39:55 AM
m,p-Xylene	ND	1.00		µg/L	1	6/18/2021 12:39:55 AM
o-Xylene	ND	0.500		µg/L	1	6/18/2021 12:39:55 AM
Surr: Dibromofluoromethane	96.7	80 - 120		%Rec	1	6/18/2021 12:39:55 AM
Surr: Toluene-d8	95.2	80 - 120		%Rec	1	6/18/2021 12:39:55 AM
Surr: 1-Bromo-4-fluorobenzene	95.0	80 - 120		%Rec	1	6/18/2021 12:39:55 AM
Mercury by EPA Method 245.1				Batc	h ID:	32754 Analyst: LB
Mercury	0.983	0.100		µg/L	1	6/23/2021 4:53:25 PM
Dissolved Mercury by EPA Method	<u>l 245.1</u>			Batc	h ID:	32737 Analyst: LB
Mercury	1.32	0.100		µg/L	1	6/22/2021 3:53:19 PM
Dissolved Metals by EPA Method 2	<u>200.8</u>			Batc	h ID:	32701 Analyst: EH
Arsenic	38.3	1.00		μg/L	1	6/23/2021 4:44:58 PM
Barium	432	1.50		µg/L	1	6/23/2021 4:44:58 PM
Cadmium	0.868	0.125		µg/L	1	6/23/2021 4:44:58 PM
Chromium	57.1	0.750		µg/L	1	6/23/2021 4:44:58 PM
Lead	18.2	0.500		µg/L	1	6/23/2021 12:39:53 AM
Selenium	9.02	1.90		µg/L	1	6/23/2021 4:44:58 PM
Silver	ND	0.350		µg/L	1	6/23/2021 12:39:53 AM
Total Metals by EPA Method 200.8	<u> </u>			Batc	h ID:	32685 Analyst: EH
Arsenic	52.4	1.00		μg/L	1	6/22/2021 7:56:01 PM
Barium	620	2.50		µg/L	1	6/21/2021 8:23:10 PM
Cadmium	1.07	0.200		µg/L	1	6/22/2021 7:56:01 PM
Chromium	24.1	1.00		µg/L	1	6/21/2021 8:23:10 PM
Lead	6.05	0.500		µa/L	1	6/22/2021 7:56:01 PM
Selenium	7.22	5.00		µa/L	1	6/22/2021 7:56:01 PM
Silver	ND	0.250		µg/L	1	6/21/2021 8:23:10 PM
Hexavalent Chromium by SM 3500	<u>Cr B</u>			Batc	h ID:	R68342 Analyst: LB
Chromium, Hexavalent	0.0776	0.0450	н	mg/L	1	7/2/2021 10:50:00 AM



Work Order: CLIENT: Project:	2106281 ATC Group City of Seat	Services, Inc. tle				QC SUMMARY REPOR Hexavalent Chromium by SM 3500 C	RT r B
Sample ID: MB-R	68342	SampType: MBLK			Units: mg/L	Prep Date: 7/2/2021 RunNo: 68342	
Client ID: MBLK	W	Batch ID: R68342				Analysis Date: 7/2/2021 SeqNo: 1380739	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qua	al
Chromium, Hexav	alent	ND	0.0450				
Sample ID: 21062	81-029EDUP	SampType: DUP			Units: mg/L	Prep Date: 7/2/2021 RunNo: 68342	
Client ID: SB-5		Batch ID: R68342				Analysis Date: 7/2/2021 SeqNo: 1380742	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qua	al
Chromium, Hexav	alent	0.0791	0.0450			0.07760 1.91 20 H	ł
Sample ID: 21062	81-029EMS	SampType: MS			Units: mg/L	Prep Date: 7/2/2021 RunNo: 68342	
Client ID: SB-5		Batch ID: R68342				Analysis Date: 7/2/2021 SeqNo: 1380743	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qua	al
Chromium, Hexava	alent	0.234	0.0450	0.2500	0.07760	62.7 42.7 142 H	I
Sample ID: 21062	81-029EMSD	SampType: MSD			Units: mg/L	Prep Date: 7/2/2021 RunNo: 68342	
Client ID: SB-5		Batch ID: R68342				Analysis Date: 7/2/2021 SeqNo: 1380744	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qua	al
Chromium, Hexav	alent	0.236	0.0450	0.2500	0.07760	63.3 42.7 142 0.2343 0.638 20 H	I
Sample ID: LCS-F	R68342	SampType: LCS			Units: mg/L	Prep Date: 7/2/2021 RunNo: 68342	
Client ID: LCSW	I	Batch ID: R68342				Analysis Date: 7/2/2021 SeqNo: 1380754	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qua	al
Chromium, Hexav	alent	0.266	0.0450	0.2500	0	107 83.8 110	

Work Or CLIENT:	rder: :	2106281 ATC Group \$	Services, I	nc.						SUMMARY REPORT
Project:		City of Seatt	le							
Sample ID:	: MB-32	700FB	SampTyp	e: MBLK			Units: µg/L		Prep Date: 6/18/2021	RunNo: 68150
Client ID:	MBLK	w	Batch ID:	32701					Analysis Date: 6/22/2021	SeqNo: 1375488
Analyte				Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Va	%RPD RPDLimit Qual
Arsenic				ND	1.00					
Barium				ND	1.50					
Cadmium				ND	0.125					
Chromium				ND	0.750					
Lead				ND	0.500					
Selenium				ND	1.90					
Silver				ND	0.350					
Sample ID:	: MB-32	701	SampTyp	e: MBLK			Units: µg/L		Prep Date: 6/18/2021	RunNo: 68150
Client ID:	MBLK	w	Batch ID:	32701					Analysis Date: 6/22/2021	SeqNo: 1375491
Analyte				Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Va	%RPD RPDLimit Qual
Arsenic				ND	1.00					
Barium				ND	1.50					
Cadmium				ND	0.125					
Chromium				ND	0.750					
Lead				ND	0.500					
Selenium				ND	1.90					
Silver				ND	0.350					
Sample ID:	: LCS-3	2701	SampTyp	e: LCS			Units: µg/L		Prep Date: 6/18/2021	RunNo: 68150
Client ID:	LCSW		Batch ID:	32701					Analysis Date: 6/22/2021	SeqNo: 1375492
Analyte				Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Va	%RPD RPDLimit Qual
Barium				111	1.50	100.0	0	111	85 115	
Lead				53.2	0.500	50.00	0	106	85 115	



Fremont Analytical

Work Order: 2106281

CLIENT: ATC Group Services, Inc.

Project: City of Seattle

QC SUMMARY REPORT

Dissolved Metals by EPA Method 200.8

Sample ID: 2106273-011EDUP	SampType: DUP			Units: µg/L		Prep Date: 6/1	8/2021	RunNo: 681	50	
Client ID: BATCH	Batch ID: 32701					Analysis Date: 6/2	2/2021	SeqNo: 137	75494	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighL	mit RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.67	1.00					2.182	26.4	30	Q
Barium	5.98	1.50					6.134	2.50	30	
Cadmium	ND	0.125					0		30	
Chromium	2.41	0.750					2.311	4.09	30	
Lead	ND	0.500					0		30	
Selenium	ND	1.90					0		30	
Silver	ND	0.350					0		30	

Sample ID: 2106273-011EMS	SampType: MS			Units: µg/L		Prep Dat	te: 6/18/20	21	RunNo: 681	150	
Client ID: BATCH	Batch ID: 32701					Analysis Da	te: 6/22/20	21	SeqNo: 137	75495	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	587	1.00	500.0	2.182	117	70	130				
Barium	556	1.50	500.0	6.134	110	70	130				
Cadmium	31.0	0.125	25.00	0	124	70	130				
Chromium	573	0.750	500.0	2.311	114	70	130				
Lead	263	0.500	250.0	0	105	70	130				
Selenium	62.4	1.90	50.00	1.126	123	70	130				
Silver	27.3	0.350	25.00	0	109	70	130				

Sample ID: 2106273-011EMSD	SampType: MSD			Units: µg/L		Prep Dat	te: 6/18/20	21	RunNo: 681	50	
Client ID: BATCH	Batch ID: 32701					Analysis Da	te: 6/22/20	21	SeqNo: 137	5496	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	607	1.00	500.0	2.182	121	70	130	586.6	3.36	30	
Barium	575	1.50	500.0	6.134	114	70	130	556.0	3.30	30	
Cadmium	29.4	0.125	25.00	0	118	70	130	31.02	5.40	30	
Chromium	603	0.750	500.0	2.311	120	70	130	573.4	5.02	30	
Lead	258	0.500	250.0	0	103	70	130	262.9	2.06	30	



Work Order:	2106281									00.9			PORT
CLIENT:	ATC Group	Services, Ir	nc.										
Project:	City of Seat	tle							Dis	solved Met	tals by EP	A Method	d 200.8
Sample ID: 21062	73-011EMSD	SampType	: MSD			Units: µg/L		Prep Da	te: 6/18/20)21	RunNo: 68	150	
Client ID: BATC	н	Batch ID:	32701					Analysis Da	te: 6/22/20)21	SeqNo: 13	75496	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			60.5	1.90	50.00	1.126	119	70	130	62.44	3.21	30	
Silver			26.9	0.350	25.00	0	108	70	130	27.33	1.62	30	
Sample ID: LCS-3	32701	SampType	: LCS			Units: µg/L		Prep Da	te: 6/18/20)21	RunNo: 68	150	
Client ID: LCSW	I	Batch ID:	32701					Analysis Da	te: 6/23/20)21	SeqNo: 13	76266	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			96.3	1.00	100.0	0	96.3	85	115				
Cadmium			4.93	0.125	5.000	0	98.5	85	115				
Chromium			104	0.750	100.0	0	104	85	115				
Selenium			9.78	1.90	10.00	0	97.8	85	115				
Silver			4.91	0.350	5.000	0	98.2	85	115				

Work Order:	2106281
CLIENT:	ATC Group Services, Inc.
Project:	City of Seattle

Fremont

Analvtical

5.71

111

55.9

11.2

0.200

1.00

0.500

5.00

5.000

100.0

50.00

10.00

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

• •									
Sample ID: MB-32685	SampType: MBLK			Units: µg/L		Prep Date	6/17/2021	RunNo: 68083	
Client ID: MBLKW	Batch ID: 32685					Analysis Date	6/21/2021	SeqNo: 1373939	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Arsenic	ND	1.00							
Barium	ND	2.50							
Cadmium	ND	0.200							
Chromium	ND	1.00							
Lead	ND	0.500							
Selenium	ND	5.00							
Silver	ND	0.250							
Sample ID: LCS-32685	SampType: LCS			Units: µg/L		Prep Date	6/17/2021	RunNo: 68083	
Client ID: LCSW	Batch ID: 32685					Analysis Date	6/21/2021	SeqNo: 1373940	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Arsenic	111	1.00	100.0	0	111	85	115		
Barium	109	2.50	100.0	0	109	85	115		

Silver	5.36	0.250	5.000	0	107	85	115			
Sample ID: 2106281-027CDUP	SampType: DUP			Units: µg/L		Prep Date	e: 6/17/2021	RunNo: 680)83	
Client ID: SB-3	Batch ID: 32685					Analysis Date	e: 6/21/2021	SeqNo: 137	73942	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Va	%RPD	RPDLimit	Qual
Arsenic	56.4	1.00					61.28	8.38	30	
Barium	694	2.50					694.2	0.00367	30	
Cadmium	0.694	0.200					0.7005	0.860	30	
Chromium	17.1	1.00					17.89	4.68	30	
Lead	4.49	0.500					4.328	3.67	30	

0

0

0

0

114

111

112

112

85

85

85

85

115

115

115

115

Cadmium

Chromium

Selenium

Lead

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

RunNo: 68083

SeqNo: 1373942

5.22

RunNo: 68083

SeqNo: 1373943

%RPD RPDLimit Qual

%RPD RPDLimit Qual

30

30

Work Order:	2106281	o · · ·								QC
CLIENT: Project:	City of Seat	Services, Ir tle	1C.							Total M
Sample ID: 21062	81-027CDUP	SampType	: DUP			Units: µg/L		Prep Date	e: 6/17/20)21
Client ID: SB-3		Batch ID:	32685					Analysis Date	e: 6/21/20)21
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Selenium			14.5	5.00						13.73
Silver			ND	0.250						0
Sample ID: 21062	81-027CMS	SampType	: MS			Units: µg/L		Prep Date	e: 6/17/20)21
Client ID: SB-3		Batch ID:	32685					Analysis Date	e: 6/21/20	021
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Arsenic			587	1.00	500.0	61.28	105	70	130	
Barium			1,220	2.50	500.0	694.2	105	70	130	
Cadmium			27.3	0.200	25.00	0.7005	106	70	130	
Chromium			539	1.00	500.0	17.89	104	70	130	
Lead			266	0.500	250.0	4.328	105	70	130	
Selenium			70.3	5.00	50.00	13.73	113	70	130	
Silver			25.0	0.250	25.00	0	100	70	130	

Sample ID: 2106281-027CMSD	SampType: MSD			Units: µg/L		Prep Da	te: 6/17/20	21	RunNo: 680	083	
Client ID: SB-3	Batch ID: 32685					Analysis Da	te: 6/21/20	21	SeqNo: 137	3944	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	587	1.00	500.0	61.28	105	70	130	587.4	0.114	30	
Barium	1,220	2.50	500.0	694.2	105	70	130	1,219	0.0651	30	
Cadmium	27.6	0.200	25.00	0.7005	108	70	130	27.32	1.18	30	
Chromium	531	1.00	500.0	17.89	103	70	130	539.4	1.52	30	
Lead	276	0.500	250.0	4.328	109	70	130	266.4	3.64	30	
Selenium	65.9	5.00	50.00	13.73	104	70	130	70.27	6.36	30	
Silver	26.3	0.250	25.00	0	105	70	130	25.00	5.21	30	



Work Order:	2106281					QC SI	UMMARY REPORT
CLIENT:	ATC Group	Services, Inc.				Morou	ry by EDA Mothod 245 1
Project:	City of Seat	tle				Mercu	ry by EPA Method 245.1
Sample ID: MB-32	754	SampType: MBLK			Units: µg/L	Prep Date: 6/23/2021	RunNo: 68167
Client ID: MBLK	W	Batch ID: 32754				Analysis Date: 6/23/2021	SeqNo: 1376033
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		ND	0.100				
Sample ID: LCS-3	2754	SampType: LCS			Units: µg/L	Prep Date: 6/23/2021	RunNo: 68167
Client ID: LCSW		Batch ID: 32754				Analysis Date: 6/23/2021	SeqNo: 1376034
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		2.74	0.100	2.500	0	110 85 115	
Sample ID: 21062	81-025CDUP	SampType: DUP			Units: µg/L	Prep Date: 6/23/2021	RunNo: 68167
Client ID: SB-1		Batch ID: 32754				Analysis Date: 6/23/2021	SeqNo: 1376036
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.196	0.100			0.1740	11.9 20
Sample ID: 21062	81-025CMS	SampType: MS			Units: µg/L	Prep Date: 6/23/2021	RunNo: 68167
Client ID: SB-1		Batch ID: 32754				Analysis Date: 6/23/2021	SeqNo: 1376037
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		2.80	0.100	2.500	0.1740	105 70 130	
Sample ID: 21062	81-025CMSD	SampType: MSD			Units: µg/L	Prep Date: 6/23/2021	RunNo: 68167
Client ID: SB-1		Batch ID: 32754				Analysis Date: 6/23/2021	SeqNo: 1376038
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury		2.82	0.100	2.500	0.1740	106 70 130 2.800	0.712 20



Work Order: CLIENT: Project:	2106281 ATC Group City of Seatt	Services, Inc. tle				QC SUMMARY REPORT Dissolved Mercury by EPA Method 245.1
Sample ID: MB-32	2737	SampType: MBLK			Units: µg/L	Prep Date: 6/22/2021 RunNo: 68120
Client ID: MBLK	W	Batch ID: 32737				Analysis Date: 6/22/2021 SeqNo: 1374720
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury		ND	0.100			
Sample ID: LCS-3	2737	SampType: LCS			Units: µg/L	Prep Date: 6/22/2021 RunNo: 68120
Client ID: LCSW	1	Batch ID: 32737				Analysis Date: 6/22/2021 SeqNo: 1374722
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury		2.53	0.100	2.500	0	101 85 115
Sample ID: 21062	38-002FDUP	SampType: DUP			Units: µg/L	Prep Date: 6/22/2021 RunNo: 68120
Client ID: BATC	н	Batch ID: 32737				Analysis Date: 6/22/2021 SeqNo: 1374724
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury		ND	0.100			0 20
Sample ID: 21062	38-002FMS	SampType: MS			Units: µg/L	Prep Date: 6/22/2021 RunNo: 68120
Client ID: BATC	н	Batch ID: 32737				Analysis Date: 6/22/2021 SeqNo: 1374725
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury		2.42	0.100	2.500	0	96.8 70 130
Sample ID: 21062	38-002FMSD	SampType: MSD			Units: µg/L	Prep Date: 6/22/2021 RunNo: 68120
Client ID: BATC	н	Batch ID: 32737				Analysis Date: 6/22/2021 SeqNo: 1374726
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury		2.39	0.100	2.500	0	95.6 70 130 2.420 1.25 20



Work Order: CLIENT: Project:	2106281 ATC Group S City of Seatt	Services, Inc. le				QC S Dissolved Merc	QC SUMMARY REPOR Dissolved Mercury by EPA Method 245.				
Sample ID: MB-32	2700FB	SampType: MBLK			Units: µg/L	Prep Date: 6/22/2021	RunNo: 68120				
Client ID: MBLK	W	Batch ID: 32737				Analysis Date: 6/22/2021	SeqNo: 1374735				
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual				
Mercury		ND	0.100								
NOTES:											

Filter Blank

Work Order:	2106281									QC 5	SUMMAR		PORT
CLIENT:	ATC Group	ATC Group Services, Inc.											0000
Project:	City of Sea	ttle					I otal metals by EPA Method 6020B						
Sample ID: MB-32686 SampType: MBLK		: MBLK			Units: mg/Kg		Prep Da	te: 6/17/202	21	RunNo: 680	95		
Client ID: MBLK	S	Batch ID:	32686					Analysis Da	te: 6/21/202	21	SeqNo: 137	4115	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			ND	0.0968									
Barium			ND	0.484									
Cadmium			ND	0.161									
Chromium			ND	0.323									
Lead			ND	0.161									
Selenium			ND	0.161									
Silver			ND	0.121									
Sample ID: LCS-3	2686	SampType	E LCS			Units: mg/Kg		Prep Da	te: 6/17/202	21	RunNo: 680	95	
Client ID: LCSS		Batch ID:	32686					Analysis Da	te: 6/21/202	21	SeqNo: 137	4116	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium			43.2	0.480	40.00	0	108	80	120				
Chromium			46.0	0.320	40.00	0	115	80	120				
Lead			22.1	0.160	20.00	0	110	80	120				
Selenium			4.25	0.160	4.000	0	106	80	120				
Sample ID: 21062	nple ID: 2106253-004AMS SampType: MS				Units: mg/Kg-dry		Prep Date: 6/17/2021			RunNo: 68095			
Client ID: BATC	н	Batch ID:	32686					Analysis Da	te: 6/21/202	21	SeqNo: 137	4119	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			53.8	0.102	42.59	5.946	112	75	125				
Barium			108	0.511	42.59	63.18	105	75	125				
Cadmium			2.38	0.170	2.130	0.4843	88.8	75	125				
Chromium			80.7	0.341	42.59	26.60	127	75	125				S
Lead			29.2	0.170	21.30	5.432	112	75	125				
Selenium			5.55	0.170	4.259	0.9497	108	75	125				
Silver			2.14	0.128	2.130	0.07037	97.1	75	125				
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Revision V1												Pad	ມະນາດ

Fremont Analytical


Work Ord	er: 2106281								00 9			
CLIENT:	ATC Group	Services, Inc.										
Project:	City of Sea	ttle							Total Meta	als by EPA	Method	6020B
Sample ID: 2	2106253-004AMS	SampType: MS			Units: mg/Kg ·	dry	Prep Date	e: 6/17/20	21	RunNo: 680)95	
Client ID: E	ВАТСН	Batch ID: 32686					Analysis Date	e: 6/21/20	21	SeqNo: 137	4119	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
NOTES: S - Analyte	e concentration was to	bo high for accurate spike	recovery(ies).								
Sample ID: 2	2106253-004AMSD	SampType: MSD			Units: mg/Kg·	dry	Prep Date	e: 6/17/20	21	RunNo: 680)95	
Client ID: E	ВАТСН	Batch ID: 32686					Analysis Date	e: 6/21/20	21	SeqNo: 137	74120	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		54.3	0.102	42.59	5.946	113	75	125	53.82	0.809	20	
Barium		115	0.511	42.59	63.18	122	75	125	107.9	6.30	20	
Cadmium		2.65	0.170	2.130	0.4843	102	75	125	2.376	11.0	20	
Chromium		75.2	0.341	42.59	26.60	114	75	125	80.67	7.08	20	
Lead		29.1	0.170	21.30	5.432	111	75	125	29.25	0.626	20	
Selenium		5.70	0.170	4.259	0.9497	111	75	125	5.548	2.66	20	
Silver		2.38	0.128	2.130	0.07037	109	75	125	2.138	10.8	20	
Sample ID: L	-CS-32686	SampType: LCS			Units: mg/Kg		Prep Date	e: 6/17/20	21	RunNo: 680)95	
Client ID: L	CSS	Batch ID: 32686					Analysis Date	e: 6/22/20	21	SeqNo: 137	74480	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		38.0	0.0960	40.00	0	95.0	80	120				
Cadmium		1.93	0.160	2.000	0	96.6	80	120				
Silver		2.07	0.120	2.000	0	104	80	120				



Work Order: CLIENT:	2106281 ATC Group	Services, Inc.							QC S		RY REF	PORT
Project:	City of Seatt	le							werd	Sury by EF	A wetho	a 747 i
Sample ID: MB-32	2716	SampType: MBLK			Units: mg/Kg	9	Prep Date:	6/21/2021		RunNo: 680	64	
Client ID: MBLK	S	Batch ID: 32716					Analysis Date:	6/21/2021		SeqNo: 137	3764	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPI	D Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.250									
Sample ID: LCS-3	2716	SampType: LCS			Units: mg/Kg	9	Prep Date:	6/21/2021		RunNo: 680)64	
Client ID: LCSS		Batch ID: 32716					Analysis Date:	6/21/2021		SeqNo: 137	3765	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPI	D Ref Val	%RPD	RPDLimit	Qual
Mercury		0.502	0.250	0.5000	0	100	80	120				
Sample ID: 21063	23-001ADUP	SampType: DUP			Units: mg/Kg	g-dry	Prep Date:	6/21/2021		RunNo: 680	64	
Client ID: BATC	н	Batch ID: 32716					Analysis Date:	6/21/2021		SeqNo: 137	3767	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPI	D Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.311						0		20	
Sample ID: 21063	23-001AMS	SampType: MS			Units: mg/Kg	g-dry	Prep Date:	6/21/2021		RunNo: 680)64	
Client ID: BATC	н	Batch ID: 32716					Analysis Date:	6/21/2021		SeqNo: 137	3768	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPI	D Ref Val	%RPD	RPDLimit	Qual
Mercury		0.618	0.300	0.5995	0.04323	95.8	70	130				
Sample ID: 21063	23-001AMSD	SampType: MSD			Units: mg/Kg	g-dry	Prep Date:	6/21/2021		RunNo: 680	064	
Client ID: BATC	н	Batch ID: 32716					Analysis Date:	6/21/2021		SeqNo: 137	3769	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPI	D Ref Val	%RPD	RPDLimit	Qual
Mercury		0.565	0.330	0.6595	0.04323	79.0	70	130	0.6175	8.97	20	

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Analytical

Work Order:	2106281									2.00	SUMMAI		PORT
CLIENT:	ATC Group	Services, I	nc.						D'				
Project:	City of Seatt	le							Diesel	and Heavy		IPH-DX/I	JX EXt.
Sample ID: MB-327	714	SampTyp	e: MBLK			Units: mg/Kg		Prep Dat	e: 6/21/20)21	RunNo: 680)96	
Client ID: MBLKS	S	Batch ID:	32714					Analysis Dat	ie: 6/21/20)21	SeqNo: 137	4177	
Analyte			Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)			ND	50.0									
Heavy Oil			ND	100									
Total Petroleum Hy	/drocarbons		ND	150									
Surr: 2-Fluorobip	ohenyl		10.0		10.00		100	50	150				
Surr: o-Terpheny	<i>y</i> l		9.67		10.00		96.7	50	150				
Sample ID: LCS-32	2714	SampTyp	e: LCS			Units: mg/Kg		Prep Dat	e: 6/21/20)21	RunNo: 680)96	
Client ID: LCSS Batch ID: 32		32714					Analysis Dat	te: 6/21/20)21	SeqNo: 137	74178		
Analyte			Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	/drocarbons		448	150	500.0	0	89.5	75.7	116				
Surr: 2-Fluorobip	ohenyl		9.47		10.00		94.7	50	150				
Surr: o-Terpheny	<i>y</i> l		10.7		10.00		107	50	150				
Sample ID: 210634	45-001AMS	SampTyp	e: MS			Units: mg/Kg·	dry	Prep Dat	e: 6/21/20)21	RunNo: 680)96	
Client ID: BATCH	4	Batch ID:	32714					Analysis Dat	te: 6/21/20)21	SeqNo: 137	74180	
Analyte			Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	/drocarbons		487	142	473.2	0	103	59.6	134				
Surr: 2-Fluorobip	ohenyl		9.86		9.463		104	50	150				
Surr: o-Terpheny	<i>y</i> l		10.6		9.463		112	50	150				
Sample ID: 210634	45-001AMSD	SampTyp	e: MSD			Units: mg/Kg·	dry	Prep Dat	e: 6/21/20)21	RunNo: 680)96	
Client ID: BATCH	4	Batch ID:	32714					Analysis Dat	te: 6/21/20)21	SeqNo: 137	74181	
Analyte			Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	/drocarbons		530	164	547.7	0	96.7	59.6	134	487.0	8.43	30	
Surr: 2-Fluorobip	ohenyl		10.3		10.95		94.0	50	150		0		
Surr: o-Terpheny	<i>/</i> I		11.2		10.95		102	50	150		0		



Work Order:	2106281						00.9	SUMMARY REPORT
CLIENT:	ATC Group S	Services, Inc.						
Project:	City of Seattle	e					Diesel and Heavy	Oil by NWTPH-Dx/Dx Ext.
Sample ID: 21063	45-001AMSD	SampType: MSD			Units: mg/Kg	-dry	Prep Date: 6/21/2021	RunNo: 68096
Client ID: BATC	н	Batch ID: 32714					Analysis Date: 6/21/2021	SeqNo: 1374181
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Sample ID: 21062	46-031ADUP	SampType: DUP			Units: mg/Kg	-dry	Prep Date: 6/21/2021	RunNo: 68096

Client ID: BATCH	Batch ID: 32714				/	Analysis Dat	te: 6/21/20	21	SeqNo: 1374195		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	69.6						0		30	
Heavy Oil	ND	139						0		30	
Total Petroleum Hydrocarbons	ND	209						0		30	
Surr: 2-Fluorobiphenyl	5.97		13.92		42.9	50	150		0		S
Surr: o-Terphenyl	6.97		13.92		50.1	50	150		0		

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.



Work Order:	2106281									QCS	SUMMA	RY REF	ORT
CLIENT:	ATC Group	Services, Ir	IC.										
Project:	City of Seat	tle							Diesel	and Heavy		TPH-DX/I	JX EXt.
Sample ID: LCS-3	2722	SampType	LCS			Units: µg/L		Prep Da	te: 6/21/20)21	RunNo: 68	128	
Client ID: LCSW	1	Batch ID:	32722					Analysis Da	ite: 6/22/20	21	SeqNo: 13	74681	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	ydrocarbons		902	197	986.6	0	91.4	31.5	116				
Surr: 2-Fluorobip	ohenyl		15.9		19.73		80.5	50	150				
Surr: o-Terphen	yl		19.6		19.73		99.3	50	150				
Sample ID: MB-32	722	SampType	BLK			Units: µg/L		Prep Da	te: 6/21/20	21	RunNo: 68	128	
Client ID: MBLKW Batch ID: 32722		32722				Analysis Date: 6/22/2021			SeqNo: 1374682				
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)			ND	98.7									
Heavy Oil			ND	98.7									
Total Petroleum Hy	ydrocarbons		ND	197									
Surr: 2-Fluorobip	phenyl		18.1		19.73		91.6	50	150				
Surr: o-Terphen	yl		20.0		19.73		102	50	150				
Sample ID: LCSD-	-32722	SampType	LCSD			Units: µg/L		Prep Da	te: 6/21/20	21	RunNo: 68	128	
Client ID: LCSW	02	Batch ID:	32722					Analysis Da	ite: 6/22/20	21	SeqNo: 13	74683	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	ydrocarbons		940	198	990.3	0	94.9	31.5	116	902.0	4.10	30	
Surr: 2-Fluorobip	ohenyl		15.0		19.81		75.6	50	150		0		
Surr: o-Terphen	yl		19.5		19.81		98.5	50	150		0		
Sample ID: 21063	05-001BMS	SampType	MS			Units: µg/L		Prep Da	te: 6/21/20	21	RunNo: 68	128	
Client ID: BATCI	н	Batch ID:	32722					Analysis Da	ite: 6/22/20	21	SeqNo: 13	74937	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hy	ydrocarbons		902	200	998.4	0	90.3	26.1	121				
Surr: 2-Fluorobip	phenyl		14.7		19.97		73.5	50	150				
Surr: o-Terphen	yl		18.6		19.97		93.0	50	150				



Work Order:	2106281 ATC Group	Services Inc				QC	SUMMARY REPORT
Project:	City of Seat	ttle				Diesel and Heavy	Oil by NWTPH-Dx/Dx Ext.
Sample ID: 21063	05-001BMS	SampType: MS			Units: µg/L	Prep Date: 6/21/2021	RunNo: 68128
Client ID: BATC	H	Batch ID: 32722				Analysis Date: 6/22/2021	SeqNo: 1374937
Analyte		Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Sample ID: 21063	53-001ADUP	SampType: DUP			Units: µg/L	Prep Date: 6/21/2021	RunNo: 68128
Client ID: BATC	H	Batch ID: 32722				Analysis Date: 6/23/2021	SeqNo: 1375608
Analyte		Result	PI	SPK value	SPK Rof Val	% REC Low limit High limit RPD Ref Val	% PDD PDD imit Qual

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	98.5						0		30	
Heavy Oil	ND	98.5						0		30	
Total Petroleum Hydrocarbons	ND	197						0		30	
Surr: 2-Fluorobiphenyl	15.8		19.70		80.1	50	150		0		
Surr: o-Terphenyl	17.2		19.70		87.3	50	150		0		



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Work Order: 2	2106281												
CLIENT:	ATC Group Sei	vices, Ir	IC.										
Project: (City of Seattle	,	-				Po	olyaroma	tic Hydro	carbons b	y EPA Me	thod 827	0 (SIM)
								Dres De			Durbles 67		
Sample ID: WIB-3267	b	sampiype				Units: µg/kg		Ргер Da	ite: 6/16/202		RUNNO: 67	980	
Client ID: MBLKS	E	Batch ID:	32676					Analysis Da	ite: 6/16/202	:1	SeqNo: 13	72143	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene			ND	20.0									
2-Methylnaphthalene			ND	20.0									
1-Methylnaphthalene			ND	20.0									
Acenaphthylene			ND	20.0									
Acenaphthene			ND	20.0									
Fluorene			ND	20.0									
Phenanthrene			ND	40.0									
Anthracene			ND	40.0									
Fluoranthene			ND	40.0									
Pyrene			ND	40.0									
Benz(a)anthracene			ND	20.0									
Chrysene			ND	40.0									
Benzo(b)fluoranthene	e		ND	20.0									
Benzo(k)fluoranthene	9		ND	20.0									
Benzo(a)pyrene			ND	20.0									
Indeno(1,2,3-cd)pyrei	ne		ND	40.0									
Dibenz(a,h)anthracer	ne		ND	40.0									
Benzo(g,h,i)perylene			ND	20.0									
Surr: 2-Fluorobiphe	enyl		905		1,000		90.5	19	135				
Surr: Terphenyl-d1	4 (surr)		1,190		1,000		119	42.9	156				
Sample ID: LCS-326	576 5	SampType	LCS			Units: µg/Kg		Prep Da	ite: 6/16/202	21	RunNo: 67	985	
Client ID: LCSS	E	Batch ID:	32676					Analysis Da	nte: 6/16/202	:1	SeqNo: 13	72144	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene			1,610	20.0	2,000	0	80.7	62.7	127				
2-Methylnaphthalene			1,650	20.0	2,000	0	82.3	62.7	132				
1-Methylnaphthalene			1,660	20.0	2,000	0	83.2	61.4	131				
Acenaphthylene			1,670	20.0	2,000	0	83.7	62	132				
Acenaphthene			1,570	20.0	2,000	0	78.6	59.2	132				

Revision v1



CLIENT: ATC Group Services, Inc.

QC SUMMARY REPORT

Project: City of Seattle

Sample ID: LCS-32676	SampType: LCS			Units: µg/Kg		Prep Date	e: 6/16/202	21	RunNo: 679	85	
Client ID: LCSS	Batch ID: 32676					Analysis Date	e: 6/16/202	21	SeqNo: 137	2144	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1,680	20.0	2,000	0	84.1	59.1	136				
Phenanthrene	1,700	40.0	2,000	0	85.0	54.1	139				
Anthracene	1,720	40.0	2,000	0	86.2	55.5	136				
Fluoranthene	1,780	40.0	2,000	0	88.8	52.8	149				
Pyrene	1,720	40.0	2,000	0	85.8	53.6	146				
Benz(a)anthracene	1,860	20.0	2,000	0	93.1	49.7	153				
Chrysene	1,650	40.0	2,000	0	82.5	52.6	147				
Benzo(b)fluoranthene	1,870	20.0	2,000	0	93.5	50.6	151				
Benzo(k)fluoranthene	1,690	20.0	2,000	0	84.5	47.1	155				
Benzo(a)pyrene	1,970	20.0	2,000	0	98.4	48.3	169				
Indeno(1,2,3-cd)pyrene	1,740	40.0	2,000	0	87.2	52.3	145				
Dibenz(a,h)anthracene	1,800	40.0	2,000	0	89.8	53	144				
Benzo(g,h,i)perylene	1,610	20.0	2,000	0	80.6	49.7	144				
Surr: 2-Fluorobiphenyl	953		1,000		95.3	19	135				
Surr: Terphenyl-d14 (surr)	1,230		1,000		123	42.9	156				
Sample ID: 2106266-001AMS	SampType: MS			Units: ua/Ka-a	Irv	Prep Date	e: 6/16/202	21	RunNo: 679	85	

Sample ID: 2106266-001AMS	SampType: MS			Units: µg/	/Kg-dry	Prep Da	te: 6/16/20)21	RunNo: 679	985	
Client ID: BATCH	Batch ID: 3267	6				Analysis Da	te: 6/16/20)21	SeqNo: 13	72146	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,810	21.8	2,179	0	82.9	26.5	126				
2-Methylnaphthalene	1,850	21.8	2,179	0	84.8	40.5	117				
1-Methylnaphthalene	1,870	21.8	2,179	0	85.6	37	118				
Acenaphthylene	1,870	21.8	2,179	0	85.8	34.6	121				
Acenaphthene	1,760	21.8	2,179	0	80.9	36.9	114				
Fluorene	1,900	21.8	2,179	0	87.1	36.5	120				
Phenanthrene	1,900	43.6	2,179	0	87.3	29.2	124				
Anthracene	1,890	43.6	2,179	0	86.6	32.9	127				
Fluoranthene	2,020	43.6	2,179	21.80	91.9	33.2	130				
Pyrene	1,930	43.6	2,179	19.12	87.7	32	128				



Project:

CLIENT: ATC Group Services, Inc.

QC SUMMARY REPORT

City of Seattle

Sample ID: 2106266-001AMS	SampType: MS			Units: µg/I	Kg-dry	Prep Da	te: 6/16/20	21	RunNo: 679	85	
Client ID: BATCH	Batch ID: 32676					Analysis Da	te: 6/16/20)21	SeqNo: 137	2146	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	2,040	21.8	2,179	15.51	92.9	33	134				
Chrysene	1,860	43.6	2,179	13.20	84.6	33.1	123				
Benzo(b)fluoranthene	1,920	21.8	2,179	12.88	87.6	36.3	126				
Benzo(k)fluoranthene	2,030	21.8	2,179	14.97	92.4	33.2	131				
Benzo(a)pyrene	2,170	21.8	2,179	14.90	98.9	36.2	148				
Indeno(1,2,3-cd)pyrene	1,930	43.6	2,179	9.746	88.2	32.8	124				
Dibenz(a,h)anthracene	1,970	43.6	2,179	0	90.6	31.4	126				
Benzo(g,h,i)perylene	1,790	21.8	2,179	11.19	81.8	25.3	122				
Surr: 2-Fluorobiphenyl	1,090		1,089		100	19	135				
Surr: Terphenyl-d14 (surr)	1,320		1,089		122	42.9	156				

Sample ID: 2106266-001AMSD	SampType: MSD			Units: µg/K	g-dry	Prep Dat	e: 6/16/20	21	RunNo: 679	85	
Client ID: BATCH	Batch ID: 32676					Analysis Dat	e: 6/16/20	21	SeqNo: 137	2147	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,660	20.4	2,044	0	81.4	26.5	126	1,806	8.25	30	
2-Methylnaphthalene	1,690	20.4	2,044	0	82.7	40.5	117	1,847	8.89	30	
1-Methylnaphthalene	1,710	20.4	2,044	0	83.8	37	118	1,866	8.52	30	
Acenaphthylene	1,720	20.4	2,044	0	84.0	34.6	121	1,870	8.54	30	
Acenaphthene	1,640	20.4	2,044	0	80.3	36.9	114	1,763	7.16	30	
Fluorene	1,750	20.4	2,044	0	85.8	36.5	120	1,897	7.91	30	
Phenanthrene	1,730	40.9	2,044	0	84.5	29.2	124	1,901	9.58	30	
Anthracene	1,730	40.9	2,044	0	84.5	32.9	127	1,887	8.86	30	
Fluoranthene	1,840	40.9	2,044	21.80	88.8	33.2	130	2,024	9.73	30	
Pyrene	1,750	40.9	2,044	19.12	84.9	32	128	1,931	9.63	30	
Benz(a)anthracene	1,860	20.4	2,044	15.51	90.3	33	134	2,040	9.18	30	
Chrysene	1,660	40.9	2,044	13.20	80.7	33.1	123	1,857	11.0	30	
Benzo(b)fluoranthene	1,680	20.4	2,044	12.88	81.4	36.3	126	1,921	13.5	30	
Benzo(k)fluoranthene	1,930	20.4	2,044	14.97	93.6	33.2	131	2,028	5.04	30	
Benzo(a)pyrene	1,980	20.4	2,044	14.90	96.0	36.2	148	2,170	9.25	30	





Project:

CLIENT: ATC Group Services, Inc.

City of Seattle

QC SUMMARY REPORT

Sample ID: 2106266-001AMSD	SampType: MSD			Units: µg/K	g-dry	Prep Da	te: 6/16/20	21	RunNo: 679	85	
Client ID: BATCH	Batch ID: 32676					Analysis Da	te: 6/16/20	21	SeqNo: 137	2147	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	1,770	40.9	2,044	9.746	86.1	32.8	124	1,931	8.77	30	
Dibenz(a,h)anthracene	1,810	40.9	2,044	0	88.4	31.4	126	1,974	8.77	30	
Benzo(g,h,i)perylene	1,640	20.4	2,044	11.19	79.7	25.3	122	1,792	8.83	30	
Surr: 2-Fluorobiphenyl	1,000		1,022		98.0	19	135		0		
Surr: Terphenyl-d14 (surr)	1,210		1,022		118	42.9	156		0		



Fremont
Analytical

Work Order:	2106281												
CLIENT:	ATC Group S	Services, Ir	IC.										
Project:	City of Seattle	ڊ ،					Po	lyaroma	tic Hydro	ocarbons b	y EPA Me	thod 827	0 (SIM)
		, 				11.1.1.1		Dava Da			Durkle 00		
Sample ID: MB-32	680	SampType				Units: µg/L		Prep Da	te: 6/16/20	21	RUNNO: 68	043	
Client ID: MBLK	W	Batch ID:	32680					Analysis Da	te: 6/17/20	21	SeqNo: 13	73215	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene			ND	0.0988									
2-Methylnaphthaler	ne		ND	0.0988									
1-Methylnaphthaler	ne		ND	0.0988									
Acenaphthylene			ND	0.0988									
Acenaphthene			ND	0.0988									
Fluorene			ND	0.0988									
Phenanthrene			ND	0.0988									
Anthracene			ND	0.0988									
Fluoranthene			ND	0.0988									
Pyrene			ND	0.0988									
Benz(a)anthracene			ND	0.0988									
Chrysene			ND	0.0988									
Benzo(b)fluoranthe	ne		ND	0.0988									
Benzo(k)fluoranthe	ne		ND	0.0988									
Benzo(a)pyrene			ND	0.0988									
Indeno(1,2,3-cd)py	rene		ND	0.0988									
Dibenz(a,h)anthrac	ene		ND	0.0988									
Benzo(g,h,i)peryler	e		ND	0.0988									
Surr: 2-Fluorobip	henyl		1.88		1.975		95.2	33.2	139				
Surr: Terphenyl-	d14		2.22		1.975		112	24.6	136				
Sample ID: LCS-3	2680	SampTvpe	LCS			Units: ua/L		Prep Da	te: 6/16/20	21	RunNo: 68	043	
Client ID: LCSW		Batch ID:	32680					Analysis Da	te: 6/17/20	21	SeaNo: 13	73216	
Analyte			Result	RI	SPK value	SPK Ref Val	%REC	l owl imit	Highl imit	RPD Ref Val	%RPD	RPDI imit	Qual
							/01/20				, in a D		Suu
Naphthalene			2.84	0.0981	3.926	0	72.5	24.1	124				
2-Methylnaphthaler	ne		2.96	0.0981	3.926	0	75.3	32	129				
1-Methylnaphthaler	ne		3.02	0.0981	3.926	0	77.0	30.4	125				
Acenaphthylene			3.11	0.0981	3.926	0	79.1	34.5	130				
Acenaphthene			2.91	0.0981	3.926	0	74.2	33.1	126				



CLIENT: ATC Group Services, Inc.

QC SUMMARY REPORT

Project: City of Seattle

Sample ID: LCS-32680	SampType: LCS			Units: µg/L		Prep Date	e: 6/16/2021	RunNo: 68043	
Client ID: LCSW	Batch ID: 32680					Analysis Date	e: 6/17/2021	SeqNo: 1373216	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Fluorene	3.21	0.0981	3.926	0	81.8	34.4	134		
Phenanthrene	3.20	0.0981	3.926	0	81.4	41.2	130		
Anthracene	2.96	0.0981	3.926	0	75.4	34.3	127		
Fluoranthene	3.34	0.0981	3.926	0	85.1	42.2	135		
Pyrene	3.20	0.0981	3.926	0	81.6	40.9	133		
Benz(a)anthracene	2.99	0.0981	3.926	0	76.1	33.1	130		
Chrysene	2.69	0.0981	3.926	0	68.5	34.7	113		
Benzo(b)fluoranthene	2.54	0.0981	3.926	0	64.8	24.9	128		
Benzo(k)fluoranthene	2.54	0.0981	3.926	0	64.8	21.3	131		
Benzo(a)pyrene	2.69	0.0981	3.926	0	68.6	23.2	139		
Indeno(1,2,3-cd)pyrene	2.27	0.0981	3.926	0	57.9	14.9	123		
Dibenz(a,h)anthracene	2.34	0.0981	3.926	0	59.6	12.2	125		
Benzo(g,h,i)perylene	2.10	0.0981	3.926	0	53.5	11.8	122		
Surr: 2-Fluorobiphenyl	1.92		1.963		97.7	33.2	139		
Surr: Terphenyl-d14	1.98		1.963		101	24.6	136		
Sample ID: LCSD-32680	SampType: LCSD			Units: µg/L		Prep Date	e: 6/16/2021	RunNo: 68043	
Client ID: LCSW02	Batch ID: 32680					Analysis Date	e: 6/17/2021	SeqNo: 1373217	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual

Analyte	Result	NL.	SFR value	SFR Rei Vai	/MRLC	LOWLINI	riigitLiititt	KFD Kei Vai	701CF D	KF DLIIIII	Quai
Naphthalene	2.72	0.0981	3.925	0	69.3	24.1	124	2.845	4.43	30	
2-Methylnaphthalene	2.88	0.0981	3.925	0	73.3	32	129	2.957	2.72	30	
1-Methylnaphthalene	2.94	0.0981	3.925	0	74.8	30.4	125	3.022	2.86	30	
Acenaphthylene	3.08	0.0981	3.925	0	78.4	34.5	130	3.105	0.918	30	
Acenaphthene	2.85	0.0981	3.925	0	72.6	33.1	126	2.913	2.21	30	
Fluorene	3.18	0.0981	3.925	0	81.1	34.4	134	3.213	0.919	30	
Phenanthrene	3.10	0.0981	3.925	0	79.1	41.2	130	3.197	3.00	30	
Anthracene	2.95	0.0981	3.925	0	75.2	34.3	127	2.962	0.330	30	
Fluoranthene	3.32	0.0981	3.925	0	84.6	42.2	135	3.340	0.568	30	
Pyrene	3.19	0.0981	3.925	0	81.3	40.9	133	3.202	0.352	30	



CLIENT: ATC Group Services, Inc.

QC SUMMARY REPORT

Project: City of Seat	tie								-		
Sample ID: LCSD-32680	SampType: LCSD			Units: µg/L		Prep Dat	te: 6/16/20	21	RunNo: 680)43	
Client ID: LCSW02	Batch ID: 32680					Analysis Dat	te: 6/17/20	21	SeqNo: 137	3217	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	3.11	0.0981	3.925	0	79.2	33.1	130	2.987	3.98	30	
Chrysene	2.87	0.0981	3.925	0	73.1	34.7	113	2.688	6.47	30	
Benzo(b)fluoranthene	2.77	0.0981	3.925	0	70.6	24.9	128	2.542	8.63	30	
Benzo(k)fluoranthene	2.72	0.0981	3.925	0	69.2	21.3	131	2.543	6.60	30	
Benzo(a)pyrene	2.93	0.0981	3.925	0	74.6	23.2	139	2.694	8.25	30	
Indeno(1,2,3-cd)pyrene	2.32	0.0981	3.925	0	59.1	14.9	123	2.274	2.04	30	
Dibenz(a,h)anthracene	2.38	0.0981	3.925	0	60.7	12.2	125	2.338	1.80	30	
Benzo(g,h,i)perylene	2.13	0.0981	3.925	0	54.3	11.8	122	2.101	1.52	30	
Surr: 2-Fluorobiphenyl	1.89		1.962		96.5	33.2	139		0	0	
Surr: Terphenyl-d14	2.17		1.962		110	24.6	136		0	0	
Sample ID: 2106223-001CMS	SampType: MS			Units: µg/L		Prep Dat	te: 6/16/20	21	RunNo: 680)43	
Client ID: BATCH	Batch ID: 32680					Analysis Dat	te: 6/17/20	21	SeqNo: 137	3235	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3 29	0.0000									
2-Methylnaphthalene	0.20	0.0992	3.968	0	82.9	25.1	120				
	3.37	0.0992	3.968 3.968	0 0	82.9 84.9	25.1 20.4	120 134				
1-Methylnaphthalene	3.37 3.55	0.0992 0.0992 0.0992	3.968 3.968 3.968	0 0 0.1046	82.9 84.9 86.8	25.1 20.4 31.5	120 134 122				
1-Methylnaphthalene Acenaphthylene	3.37 3.55 3.65	0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968	0 0 0.1046 0.1583	82.9 84.9 86.8 87.9	25.1 20.4 31.5 34.9	120 134 122 125				
1-Methylnaphthalene Acenaphthylene Acenaphthene	3.37 3.55 3.65 6.00	0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845	82.9 84.9 86.8 87.9 79.6	25.1 20.4 31.5 34.9 33.2	120 134 122 125 123				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene	3.37 3.55 3.65 6.00 4.06	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955	82.9 84.9 86.8 87.9 79.6 94.8	25.1 20.4 31.5 34.9 33.2 41.1	120 134 122 125 123 127				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene	3.37 3.55 3.65 6.00 4.06 3.49	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0	82.9 84.9 86.8 87.9 79.6 94.8 88.0	25.1 20.4 31.5 34.9 33.2 41.1 41.6	120 134 122 125 123 127 126				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene	3.37 3.55 3.65 6.00 4.06 3.49 3.53	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1	120 134 122 125 123 127 126 123				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50	120 134 122 125 123 127 126 123 126				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62 3.54	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877 0.2041	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6 84.0	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50 46.7	120 134 122 125 123 127 126 123 126 125				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62 3.54 3.02	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877 0.2041 0	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6 84.0 76.2	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50 46.7 25.3	120 134 122 125 123 127 126 123 126 125 122				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62 3.54 3.02 2.71	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877 0.2041 0 0	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6 84.0 76.2 68.3	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50 46.7 25.3 22.8	120 134 122 125 123 127 126 123 126 125 122 111				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62 3.54 3.02 2.71 2.63	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877 0.2041 0 0 0 0	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6 84.0 76.2 68.3 66.2	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50 46.7 25.3 22.8 8.57	120 134 122 125 123 127 126 123 126 125 122 111 125				
1-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene	3.37 3.55 3.65 6.00 4.06 3.49 3.53 3.62 3.54 3.02 2.71 2.63 2.55	0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992 0.0992	3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968 3.968	0 0 0.1046 0.1583 2.845 0.2955 0 0.06165 0.1877 0.2041 0 0 0 0 0	82.9 84.9 86.8 87.9 79.6 94.8 88.0 87.5 86.6 84.0 76.2 68.3 66.2 64.2	25.1 20.4 31.5 34.9 33.2 41.1 41.6 34.1 50 46.7 25.3 22.8 8.57 7.05	120 134 122 125 123 127 126 123 126 125 122 111 125 124				





Project:

CLIENT: ATC Group Services, Inc.

City of Seattle

QC SUMMARY REPORT

Sample ID: 2106223-001CMS	SampType: MS			Units: µg/L		Prep Dat	te: 6/16/2021	RunNo: 68043	
Client ID: BATCH	Batch ID: 32680					Analysis Dat	te: 6/17/2021	SeqNo: 1373235	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref	Val %RPD RPDLimit Qual	
Indeno(1,2,3-cd)pyrene	2.04	0.0992	3.968	0	51.5	5	120		
Dibenz(a,h)anthracene	2.09	0.0992	3.968	0	52.6	5	122		
Benzo(g,h,i)perylene	1.86	0.0992	3.968	0	46.9	5	114		
Surr: 2-Fluorobiphenyl	2.16		1.984		109	33.2	139		
Surr: Terphenyl-d14	2.01		1.984		101	24.6	136		



Work Order:	2106281									QC S	SUMMAI	RY REF	PORT
	ATC Group	Services, Ir	NC.								Gasoline	by NWT	PH-Gx
Project:	City of Seat	tie										,	
Sample ID: LCS-3	2743	SampType	E LCS			Units: mg/Kg		Prep Da	te: 6/22/20	21	RunNo: 681	139	
Client ID: LCSS		Batch ID:	32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	75524	
Analyte			Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			23.2	5.00	25.00	0	92.6	65	135				
Surr: Toluene-d8	3		1.23		1.250		98.5	65	135				
Surr: 4-Bromoflu	iorobenzene		1.25		1.250		99.9	65	135				
Sample ID: MB-32	743	SampType	: MBLK			Units: mg/Kg		Prep Da	te: 6/22/20	21	RunNo: 681	139	
Client ID: MBLK	S	Batch ID:	32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	75525	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	5.00									
Surr: Toluene-d8	3		1.23		1.250		98.3	65	135				
Surr: 4-Bromoflu	lorobenzene		1.22		1.250		97.7	65	135				
Sample ID: 21063	91-001BDUP	SampType	: DUP			Units: mg/Kg-	dry	Prep Da	te: 6/22/20	21	RunNo: 681	139	
Client ID: BATCI	н	Batch ID:	32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	75531	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	5.41						0		30	
Surr: Toluene-d8	3		1.35		1.352		99.8	65	135		0		
Surr: 4-Bromoflu	lorobenzene		1.32		1.352		97.3	65	135		0		
Sample ID: 21063	76-003BMS	SampType	: MS			Units: mg/Kg-	dry	Prep Da	te: 6/22/20	21	RunNo: 681	139	
Client ID: BATCI	н	Batch ID:	32743					Analysis Da	te: 6/23/20	21	SeqNo: 137	75538	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			21.4	4.53	22.65	0	94.4	65	135				
Surr: Toluene-d8	3		1.11		1.132		97.9	65	135				
Surr: 4-Bromoflu	iorobenzene		1.15		1.132		102	65	135				



Work Order:	2106281								00.9			ORT
CLIENT:	ATC Group	Services, Inc.										
Project:	City of Seat	tle								Gasoline	by NW I	PH-GX
Sample ID: 21064	01-006BDUP	SampType: DUP			Units: mg	/Kg-dry	Prep Dat	e: 6/22/20	21	RunNo: 68 ′	139	
Client ID: BATCI	H	Batch ID: 32743					Analysis Dat	e: 6/23/20	21	SeqNo: 13	75545	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline		ND	5.39						0		30	
Surr: Toluene-d8	3	1.32		1.348		98.1	65	135		0		
Surr: 4-Bromoflu	iorobenzene	1.34		1.348		99.7	65	135		0		



Work Order:	2106281	Convisoo In								QC S	SUMMAI	RY REF	PORT
CLIENT: Project:	City of Seatt	Services, ir Ie	IC.								Gasoline	by NWT	PH-Gx
Sample ID: 1 CS-3	2688	SampType	· 1 CS			Units: un/l		Pren Da	te [.] 6/17/20	21	RunNo: 68(136	
Client ID: LCSW	2000	Batch ID:	32688					Analysis Da	te: 6/17/20	21	SeaNo: 137	73172	
		Baton 18.	Result	RI	SPK value	SPK Ref \/al	%REC	Lowl imit	Highl imit	RPD Ref Val	%RPD	RPDI imit	Qual
Analyte		I	Vesuit		Si it value	SI ICICEI VAI	/orceo	LOWLIIIII	TilgriLinnt	Ri D Rei Vai	/ortind		Quai
Gasoline			532	50.0	500.0	0	106	65	135				
Surr: 1 Dromoflu	3 Jarobanzana		24.9		25.00		99.4 08.5	65 65	135				
Sull: 4-Biomoliu	lorobenzene		24.0		25.00		96.5	60	135				
Sample ID: MB-32	688	SampType	BLK			Units: µg/L		Prep Da	te: 6/17/20	21	RunNo: 680)36	
Client ID: MBLK	w	Batch ID:	32688					Analysis Da	te: 6/17/20	21	SeqNo: 137	73155	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	50.0									
Surr: Toluene-d8	3		24.8		25.00		99.3	65	135				
Surr: 4-Bromoflu	lorobenzene		24.1		25.00		96.6	65	135				
Sample ID: 210629	99-001ADUP	SampType	DUP			Units: µg/L		Prep Da	te: 6/17/20	21	RunNo: 680)36	
Client ID: BATCH	н	Batch ID:	32688					Analysis Da	te: 6/17/20	21	SeqNo: 137	73157	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	50.0						0		30	
Surr: Toluene-d8	3		24.6		25.00		98.4	65	135		0		
Surr: 4-Bromoflu	iorobenzene		23.7		25.00		95.0	65	135		0		
Sample ID: 210629	95-001ADUP	SampType	DUP			Units: µg/L		Prep Da	te: 6/17/20	21	RunNo: 680)36	
Client ID: BATCH	H	Batch ID:	32688					Analysis Da	te: 6/17/20	21	SeqNo: 137	73162	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline			ND	50.0						0		30	
Surr: Toluene-d8	3		24.7		25.00		98.9	65	135		0		
Surr: 4-Bromoflu	iorobenzene		23.4		25.00		93.6	65	135		0		



Work Order: 2106281 QC SUMMARY REPORT CLIENT: ATC Group Services, Inc. **Gasoline by NWTPH-Gx** Project: City of Seattle Sample ID: 2106299-002AMS SampType: MS Units: µg/L Prep Date: 6/17/2021 RunNo: 68036 Client ID: BATCH Batch ID: 32688 Analysis Date: 6/17/2021 SeqNo: 1373163 LowLimit HighLimit RPD Ref Val Analyte Result RL SPK value SPK Ref Val %REC %RPD RPDLimit Qual 332 0 65 Gasoline 50.0 500.0 66.4 135 25.2 65 Surr: Toluene-d8 25.00 101 135 Surr: 4-Bromofluorobenzene 24.7 25.00 98.8 65 135



Project:

CLIENT: ATC Group Services, Inc. City of Seattle

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

	-										
Sample ID: LCS-32743	SampType: LCS			Units: mg/Kg		Prep Dat	te: 6/22/20	21	RunNo: 681	38	
Client ID: LCSS	Batch ID: 32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	75311	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.958	0.0200	1.000	0	95.8	80	120				
Toluene	0.992	0.0300	1.000	0	99.2	80	120				
Ethylbenzene	1.01	0.0250	1.000	0	101	80	120				
m,p-Xylene	2.02	0.0500	2.000	0	101	80	120				
o-Xylene	1.01	0.0250	1.000	0	101	80	120				
Surr: Dibromofluoromethane	1.22		1.250		97.5	80	120				
Surr: Toluene-d8	1.23		1.250		98.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		101	80	120				
Sample ID: MB-32743	SampType: MBLK			Units: mg/Kg		Prep Dat	te: 6/22/20	21	RunNo: 681	38	
Client ID: MBLKS	Batch ID: 32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	75312	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.17		1.250		93.6	80	120				
Surr: Toluene-d8	1.20		1.250		95.9	80	120				

Sample ID: 2106391-001BDUP	SampType: DUP			Units: mg/H	Kg-dry	Prep Da	te: 6/22/20	21	RunNo: 681	38	
Client ID: BATCH	Batch ID: 32743					Analysis Da	te: 6/22/20	21	SeqNo: 137	5315	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0216						0		30	
Toluene	ND	0.0325						0		30	
Ethylbenzene	ND	0.0270						0		30	

97.0

80

120

1.250

Surr: 1-Bromo-4-fluorobenzene

1.21

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Analytical

Work Order: 2106281								QC S	SUMMAI		PORT
CLIENT: ATC Group	Services, Inc.					Valatila	Organia	Compour	da hy EDA	Mathad	02600
Project: City of Seat	tle					volatile	Organic	Compoun		methoa	020UD
Sample ID: 2106391-001BDUP	SampType: DUP			Units: mg/K	(g-dry	Prep Date	e: 6/22/20	21	RunNo: 681	38	
Client ID: BATCH	Batch ID: 32743					Analysis Date	e: 6/22/20	21	SeqNo: 137	5315	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	0.0541						0		30	
o-Xylene	ND	0.0270						0		30	
Surr: Dibromofluoromethane	1.29		1.352		95.5	80	120		0		
Surr: Toluene-d8	1.31		1.352		96.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.30		1.352		96.5	80	120		0		
Sample ID: 2106281-007BMS	SampType: MS			Units: mg/K	(g-dry	Prep Date	e: 6/22/20	21	RunNo: 681	38	
Client ID: SB2-10'	Batch ID: 32743					Analysis Date	e: 6/23/20	21	SeqNo: 137	5322	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.26	0.0277	1.386	0	91.2	80	123				
Toluene	1.31	0.0416	1.386	0	94.2	80	125				
Ethylbenzene	1.35	0.0346	1.386	0	97.5	80	133				
m,p-Xylene	2.69	0.0693	2.772	0	97.0	80	129				
o-Xylene	1.37	0.0346	1.386	0	99.0	73.4	131				
Surr: Dibromofluoromethane	1.66		1.732		95.7	80	120				
Surr: Toluene-d8	1.66		1.732		95.8	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.80		1.732		104	80	120				
Sample ID: 2106401-006BDUP	SampType: DUP			Units: mg/K	(g-dry	Prep Date	e: 6/22/20	21	RunNo: 681	38	
Client ID: BATCH	Batch ID: 32743					Analysis Date	e: 6/23/20	21	SeqNo: 137	/5329	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0216						0		30	
Toluene	ND	0.0323						0		30	
Ethylbenzene	ND	0.0270						0		30	
m,p-Xylene	ND	0.0539						0		30	
o-Xylene	ND	0.0270						0		30	
Surr: Dibromofluoromethane	1.28		1.348		94.7	80	120		0		



Surr: 1-Bromo-4-fluorobenzene

1.33

0

Work Order: CLIENT: Project:	2106281 ATC Group City of Seat	Services, Ir tle	IC.					Volatile	Organio	QC S Compoun	SUMMA ds by EPA	RY REF	PORT 8260D
Sample ID: 21064	01-006BDUP	SampType	: DUP			Units: m g	g/Kg-dry	Prep Da	te: 6/22/20)21	RunNo: 681	38	
Client ID: BATC	н	Batch ID:	32743					Analysis Da	te: 6/23/20)21	SeqNo: 137	/5329	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d	8		1.29		1.348		95.6	80	120		0		

98.9

80

120

1.348



CLIENT: ATC Group Services, Inc.

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Project: City of Seatt	le					Volutilo	organic	oompoun		method	OLUOD
Sample ID: LCS-32688	SampType: LCS			Units: µg/L		Prep Dat	e: 6/17/20	21	RunNo: 680)35	
Client ID: LCSW	Batch ID: 32688					Analysis Dat	te: 6/17/20	21	SeqNo: 137	73140	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.3	0.440	20.00	0	96.5	80	120				
Toluene	19.7	0.750	20.00	0	98.7	80	120				
Ethylbenzene	19.7	0.400	20.00	0	98.3	80	120				
m,p-Xylene	39.5	1.00	40.00	0	98.8	80	120				
o-Xylene	20.1	0.500	20.00	0	100	80	120				
Surr: Dibromofluoromethane	23.9		25.00		95.5	80	120				
Surr: Toluene-d8	25.1		25.00		100	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	80	120				
Sample ID: MB-32688	SampType: MBLK			Units: µg/L		Prep Dat	:e: 6/17/20)21	RunNo: 68(035	
Client ID: MBLKW	Batch ID: 32688					Analysis Dat	te: 6/17/20)21	SeqNo: 137	73116	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.440									
Toluene	ND	0.750									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Surr: Dibromofluoromethane	22.7		25.00		90.9	80	120				
Surr: Toluene-d8	23.6		25.00		94.4	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.4		25.00		97.7	80	120				
Sample ID: 2106299-001ADUP	SampType: DUP			Units: µg/L		Prep Dat	e: 6/17/20	021	RunNo: 68()35	
Client ID: BATCH	Batch ID: 32688					Analysis Dat	te: 6/17/20	21	SeqNo: 137	73121	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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Work Order:	2106281									00.9	SUMMA		PORT
CLIENT:	ATC Group S	Services, Ir	nc.						_				
Project:	City of Seattle	е						Volatile	Organic	: Compoun	ds by EPA	Method	8260D
Sample ID: 210629	99-001ADUP	SampType	: DUP			Units: µg/L		Prep Dat	te: 6/17/20	21	RunNo: 680)35	
Client ID: BATCH	1	Batch ID:	32688					Analysis Dat	te: 6/17/20	21	SeqNo: 137	/3121	
Analyte		l	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene			ND	1.00						1.272	93.4	30	
o-Xylene			ND	0.500						0		30	
Surr: Dibromoflue	oromethane		23.1		25.00		92.6	80	120		0		
Surr: Toluene-d8	3		23.6		25.00		94.3	80	120		0		
Surr: 1-Bromo-4-	fluorobenzene		24.0		25.00		96.1	80	120		0		
Sample ID: 210629	95-001ADUP	SampType	: DUP			Units: µg/L		Prep Dat	te: 6/17/20	21	RunNo: 680)35	
Client ID: BATCH	1	Batch ID:	32688					Analysis Dat	te: 6/17/20	21	SeqNo: 137	73128	
Analyte		l	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene			ND	0.440						0		30	
Toluene			ND	0.750						0		30	
Ethylbenzene			ND	0.400						0		30	
m,p-Xylene			ND	1.00						0		30	
o-Xylene			ND	0.500						0		30	
Surr: Dibromoflue	oromethane		24.1		25.00		96.4	80	120		0		
Surr: Toluene-d8	3		23.7		25.00		94.8	80	120		0		
Surr: 1-Bromo-4-	fluorobenzene		23.7		25.00		94.7	80	120		0		
Sample ID: 210629	96-003AMS	SampType	: MS			Units: µg/L		Prep Dat	te: 6/17/20	21	RunNo: 680)35	
Client ID: BATCH	1	Batch ID:	32688					Analysis Dat	te: 6/17/20	21	SeqNo: 137	73130	
Analyte		l	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene			21.3	0.440	20.00	0	107	79	131				
Toluene			24.0	0.750	20.00	1.235	114	79.4	132				
Ethylbenzene			82.5	0.400	20.00	75.65	34.3	64.2	145				S
m,p-Xylene			242	1.00	40.00	228.2	33.4	80	128				S
o-Xylene			185	0.500	20.00	173.8	54.9	80	125				S
Surr: Dibromoflue	oromethane		24.5		25.00		98.1	80	121				



Work Order:	2106281									00.5			ORT
CLIENT:	ATC Group	Services, In	IC.						- ·				
Project:	City of Seatt	le						Volatile	Organic	Compoun	ds by EPA	Method	8260D
Sample ID: 210629	96-003AMS	SampType	MS			Units: µg/L		Prep Da	te: 6/17/20	21	RunNo: 680)35	
Client ID: BATCH	4	Batch ID:	32688					Analysis Da	ite: 6/17/20	21	SeqNo: 137	3130	
Analyte		F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	3		25.9		25.00		104	80	120				

106

80

120

25.00

NOTES:

Surr: 1-Bromo-4-fluorobenzene

S - Analyte concentration was too high for accurate spike recovery(ies).

26.5



Sample Log-In Check List

Clie	nt Name: A	тс	Work Order Number: 2106281						
Log	ged by: C	carissa True	Date Received:	6/15/2021	3:46:00 PM				
<u>Chair</u>	n of Custod	ly							
1. ls	s Chain of Cus	tody complete?	Yes 🗹	No 🗌	Not Present				
2. H	low was the sa	mple delivered?	<u>Client</u>						
<u>Log I</u>	<u>n</u>								
3. C	coolers are pre	sent?	Yes 🖌	No 🗌	NA 🗌				
4. S	hipping contai	ner/cooler in good condition?	Yes 🖌	No 🗌					
5. C (F	ustody Seals Refer to comm	present on shipping container/cooler? ents for Custody Seals not intact)	Yes	No 🗌	Not Present 🗹				
6. V	Vas an attemp	t made to cool the samples?	Yes 🖌	No 🗌	NA 🗌				
7. V	Vere all items i	received at a temperature of >2°C to 6°C *	Yes 🖌	No 🗌					
8. S	ample(s) in pr	oper container(s)?	Yes 🗹	No 🗌					
9. S	Sufficient samp	le volume for indicated test(s)?	Yes 🖌	No 🗌					
10. ^A	re samples pro	operly preserved?	Yes 🖌	No 🗌					
11. ۷	Vas preservativ	ve added to bottles?	Yes 🗌	No 🔽	NA 🗌				
12. ^{Is}	s there headsp	ace in the VOA vials?	Yes	No 🔽	NA 🗌				
13. ^D	id all samples	containers arrive in good condition(unbroken)?	Yes 🗹	No 🗌					
14. ^D	oes paperworl	k match bottle labels?	Yes 🗹	No 🗌					
15. ^A	re matrices co	prrectly identified on Chain of Custody?	Yes 🖌	No 🗌					
16. ^{Is}	s it clear what a	analyses were requested?	Yes 🖌	No 🗌					
17. ۷	Vere all holding	g times able to be met?	Yes 🗌	No 🗹					
<u>Spec</u>	ial Handlin	<u>g (if applicable)</u>							
18. ^v	Vas client notif	ied of all discrepancies with this order?	Yes 🖌	No 🗌	NA 🗌				
	Person No	tified: Nasrin Bastami Date		6/25/2021					
	By Whom:	Brianna Barnes Via:	✔ eMail Ph	one 🗌 Fax 🛛	In Person				
	Regarding	Hexavalent chromium is out of hold, is	it okav to proceed?						
	Client Inst	ructions: Proceed out of hold.							

Item Information

Item #	Temp ⁰C
Sample 1	3.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

2	saed	ontanalytical.com	www.fremo			SOC 1.3 - 11.06.20	0
	it Name Date/Time	Received (Signature) Prin x	Date/Time		Print Name	Relinquished (Signature) c	× m
0	analy USAN Date/Ime Date/Ime	* Council some Ch	15 2021 15:00	et ou	B Gowl	relinquished (Signature)	XD
	C 2 Day (specify)		T I CHIONE CHIRIY LEGI OH OCHI	his Agreement.	ont and backside of t	to each of the terms on the fre	
V	verified Client's agreement	alf of the Client named above that I have	Fremont Analytical on heha	Agreement wit	and to enter into this	Trenresent that I am authoriz	1
		Nitrate+Nitrite	da O.Dhoenhata Fluorida	Culfsta Bromi	hits Chinrida	*** Anione (Circle) Nitrate Ni	• 1
	sonn water, www - waste water	Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb St	idi: Ag Al As B Ba Be Ca Cd C	TAL Individ	 Priority Pollutants 	"Metals (Circle): MTCA-5 (RCRA	
	Turn-oround Time:		X XX X	100 4		0 583-11	H
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	held			940	0	, 281-12,	4
	hold			935	0	\$81-10'	w
	hold 80			925	0	561-51	N
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	Comments		u of 1315 2360 1424	Sample Time (Matrix)	Sample 5 Date	Sample Name	Set.
		astanci Catego com	PMEmail: Nasnn.b			Fax:	1-
	Sample Disposal: Return to client Disposal by lab (after 30 days)	tanni	Report To (PM): N-Bas		6441-14	Telephone: (206) 7 {	1.4
		Ave S. Seattle, WA	Location: 8914 14th	107	Sb YM	city, state, zip: Seattle	10
	<u> </u>	le t	Collected by: B. Gou	WW	WEW AVE.	Address: 6347 Sec	1.
			Project No:	C L L C	p services	client: ATC Grov	10
	Special Remarks:	Seattle	Project Name: (154 of	: 206-352-7178	MATERIA Fax	-JJ Ano	-
	Laboratory Project No (internal): $\gamma(0)_013$	021 Page: 1 of: 3	Date: 06-15-2	tle, WA 98103 : 206-352-3790	ONC Seat	Frem	
	ratory Services Agreement	ustody Record & Labo	Chain of Cu	remont Ave N.	3600 F	SAN AHN	_

Page 63 of 68

2

MANNAM	3600 Frem	ont Ave N.	Chain of C	ustody Record &	Laboratory Services	Agreement
Fremo	Tel: 206	WA 98103	e: 06-15-202	1 Page: Z of:	S Laboratory Project No (internal):	182 001V
-11- Analyti	[W/7] Fax: 206	-352-7178 Proj	ect Name:		Special Remarks:	64 0
client: ATC		Pro	ect No: CIEY	of Scattle		
Address:		Coll	ected by: B- (20	rkt		P
City, State, Zip:		Loc	ation:			
Telephone:		Rep	ort To (PM): N.B	as tami	Sample Disposal: Return to clien	tt Disposal by lab (after 30 days)
Fax:		PM	Email:			
			001 (c).	1000 000 000 000 000 000 000 000 000 00		
Sample Name	Sample Samp Date Time	Sample Type # o e (Matrix)* Con	1. 155 515 535 110 50	100 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -		Comments
1 2-2.95	00/15/2021 1105	5 601 3			hold	
2 563-10'	1,1,110				hold	
3 563-15'	111	5			hold	
4 SB3-20'	1120	0			hold	
5 584-11	121	0				
6 564-5'	1219	5			hold	
, 284-10,	122	0			hold	
, 51-495	122	~			hold	
, SB4-20'	123	0			hold	
10 SB5-1'	132	4 4	<u>`</u>		hold	
Matrix: A = Air, AQ = Aqueous, B = Bulk, O) = Other, P = Product,	S = Soil, SD = Sedim	ent, SL = Solid, W = Water,	DW = Drinking Water, GW = Ground Wa	ater, SW = Storm Water, WW = Waste Water	Turn-around Time:
***Anions (Circle): Nitrate Nitrite	Chloride Sulfa	AL individual: A te Bromide	g Al As B Ba Be Ca Co O-Phosphate Fluoride	e Nitrate+Nitrite	a m pd 30 35 31 30 11 11 V Z0	
I represent that I am authorized to	enter into this Agr	cement with Fre	mont Analytical on beh	alf of the Client named above, th	nat I have verified Client's agreement	
to each of the terms on the front an	nd backside of this /	Agreement.				□ ∠ Uay (specity)
x Relinquished (Signature)	B Gould	t ola-1	5-2021 / 1500	* Channelly Charles	Print Name Date	ettime 1011SIDA ISHU
Relinq uishe d (Signature) x	Print Name	Date,	Time /	Received (Signature)	Print Name Date	e/Time ^y
COC 1.3 - 11.06.20			www.fremo	ontanalytical.com		Page 1 of 2

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ALAN ALAN	3600 Fremo	nt Ave N.	Chain of C	ustody R	ecord & La	aboratory Services	Agreement
Premor	Tel: 206-	VA 98103	ate: 06-15-20	21 Page:	3 of: 3	Laboratory Project No (internal):	11 W 12 1
- 1 - Analyti	Fax: 206-	-352-7178 Pi	oject Name: City	of Seatt	é	Special Remarks:	65 o
client: ATC		P	oject No:				age
Address:	**********	0	plected by: B. G.	ouldE	*****		
City, State, Zip:		6	cation:				
Telephone:		R	eport To (PM): N. B.C	Istami		Sample Disposal: Return to client	t Disposal by iab (after 30 days)
Fax:		P	M Email:				
			16281	A CONTRACTOR	101 444 639 639 1489		
Sample Name	Sample Sampl Date Time	e Type # (Matrix)* Co	of 1953 5757 53637 5364	Clearly Contraction	917 939 (37) 917 939 (37) 19 19 19 19 19 19 19 19 19 19 19 19 19 1		Comments
1 585-51	06/15/2021 1-5 2:	1105 5	3 XX	\times	XT		
2 585-10'	. 1, 123	0				hold	
3 565-15	133	S				hold	
4 585-20'	1341	0 4	¢			hold	
5 58-1		GW	e XX	X	X TID		
6 56-2		_		\sim	X T/9		
7 SB~3		_		×	X 1/0		
8 JB-4				$\overline{\times}$			
5-8-5	V 1350	~					
10							
*Matrix: A = Air, AQ = Aqueous, B = Bulk, O	entry Pallutante TA	S = Soil, SD = Sedi	ment, SL = Solid, W = Water	, DW = Drinking Wate	er, GW = Ground Water, K Me Mn Mn Na Ni	SW = Storm Water, WW = Waste Water	Standard 🗌 Next Day
***Anions (Circle): Nitrate Nitrite	Chloride Sulfat	e Bromide	O-Phosphate Fluori	de Nitrate+Nitri	te		3 Day Same Day
I represent that I am authorized to to each of the terms on the front an	enter into this Agre	eement with F	remont Analytical on be	half of the Client	named above, that I	have verified Client's agreement	2 Day (specify)
Relinquished (Signature)	Print Name	Da	te/Time	Received (Signatu	re)	Print Name Date	/Time
* R Hault	B-Gonlet	06-15-	2021 / 15:00	*alau	luch	Claurchaluson	RIISIN ISHR
Relinquished (Signature) x	Print Name	Da	te/Timé	Received (Signatu x	re)	Print Name Date	:/Time
COC 1.3 - 11.06.20			www.frem	ontanalytic	al.com		Page 1 of 2
COC 1.3 - 11.06.20				Citation y and			Lot ago L

COC 1.3 - 11.06.20

- I - Analyii	Fax: 206-352-71	.78 Pro	Ject Name: (ity of Seattle	Special Remarks:
Client: ATC Group	Services LLC	Pro	lect No:	Edits per NB 6/25/2021 -BB
Address: 6347 Seavic	W Ave. NW	6	lected by: B. Goulet	
city, state, zip: Spattle, w	+ olsb AU	5	ation: 8914 14th Ave S Seattle wi	
Telephone: (206) 781 -	1449	Re	ort to (PM): N- Bastanni	Sample Disposal: Return to client Disposal by lab (after 30 days)
Fax:		PN	Email Nason bastani Categs c	5947
Sample Name	Sample Sample Time (M	Imple # 1	************************************	State
1-1951	06/15/200 0915 5	011	I XX X X X X- I	
2 581-5'	2 2 Po			hold Ba
3 581-10'	0935			hold
4 581-15'	0440			held
5 582-1'	1015			hold
· 582-5'	1020			hold
, 562-10'	1025		XX XXX XT	
8 SB2-15'	1020		() ()	hold
s 562-20'	1035			hold
10 583-11	1 100	4		
*Matrix: A = Air, AQ = Aqueous, B = Bulk, O) = Other, P = Product, S = Soil,	SD = Sedir	ent, St. = Solid, W = Water, DW = Drinking Water, GW = Ground Water,	SW = Storm Water, WW = Waste Water Turn-around Time:
**Metals (Circle): MTCA-5 (RCRA-8) F	Priority Pollutants TAL /	ndividual:	g Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na N	Pb Sb Se Sr Sn Ti Ti V Zn 🛛 🕅 Standard 🗌 Next Day
*** Anions (Circle): Nitrate Nitrite	Chloride Sulfate	Bromide	O-Phosphate Fluoride Nitrate+Nitrite	3 Day Same Day
I represent that I am authorized to to each of the terms on the front an	enter into this Agreemen id backside of this Agreen	t with Fr tent.	mont Analytical on behalf of the Client named above, that	have verified Client's agreement
x K Heult	B Crowlet	Date DL-15	Time 2021/15:00 * Kale Children	Print Name Date/Time Date/Time
Relinquished (Signature) x	Print Name	Dati	/Time Received (Signature) x	Print Name Date/Time
COC 1.3 - 11.06.20			www.fremontanalytical.com	Page 1 c

ALC: NO

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3600 Fremont Ave N. Seattle, WA 98103 Tel: 206-352-3790 Fax: 206-352-7178

Date:

06-15-2021

Page:

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W

Laboratory Project No (internal): $\mathcal{V}(0)(\mathcal{VS})$

Special Remarks:

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Chain of Custody Record & Laboratory Services Agreement

EXNAMN -	3600 F	remont Ave	.z	Chain of	Custody Record & Lab	boratory Services Agreement	
	Tel Fax	ttle, WA 981 206-352-37 206-352-71	03 90 Da	te: 06-15-20	21 Page: 2 of: 3	Laboratory Project No (internal): 710 U 23	of 68
client: ATC			Pro	oject No: CIVY	of Seattle		age 6
Address:			6	llected by: B- CA	onkt		P
City, State, Zip:			Loc	cation:	*****		
Telephone:			Re	port To (PM): N ,	bastami	Sample Disposal: Return to client Disposal by lab (after 30	days)
Fax:			PN	1 Email:			
	Sample	Sample T	mple # c	or CS:1637-Steal Hola			
1 583-51	1 1202/ 19/ 100	105 50	1			hold	
2 583-10'		110				notat	
s 283-15,		115				hold	
4 563-20'		120				hold	
5 564-11		1210			XXXT		
6 564-5'		215				hold	
, 284-10,	1	220				hold	
° 264-15'		225				hold	
, SB4-20'		230				hold	
10 SB5-1'	4	320	4	\ 		hold	
*Matrix: A = Air, AQ = Aqueous, B = Bulk, (0 = Other, P = Prod Priority Pollutants	uct, S = Soil, TAI in	SD = Sedin dividual:	nent, SL=Solid, W=Watu Ar Al As B Ba Be Ca (er, DW = Drinking Water, GW = Ground Water, SW Cd Co Cr Cu Fe He K Me Mn Mo Na Ni Pb	W = Storm Water, WW = Waste Water Turn-cround Tir	Day
***Anions (Circle): Nitrate Nitrite	Chloride	Sulfate 6	Bromide	O-Phosphate Fluc	oride Nitrate+Nitrite	3 Dav San	e Day
I represent that I am authorized to to each of the terms on the front a	o enter into this nd backside of t	Agreement his Agreem	with Fro	emont Analytical on b	ehalf of the Client named above, that I ha	ave verified Client's agreement	ify)
x Relinquished (Signature)	Print Name B. Gor	rut	Date	5-2021 / 1500	* Claud Mich (Print Name Date/Time NGUVCIANCLUSION 10115/2015	the
Relinqu ished (Signature) x	Print Name		Date	e/Time /	Received (Signature)	Print Name Date/Time	
COC 1.3 - 11.06.20				www.frer	nontanalytical.com		Page 1 of 2

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Fremont	ttle, WA 98103	and a more of the second states of		Internation Product Ma Intermally
	1: 206-352-3/90	Date: 06-15-20	21 Page: 3 of: 3	Capotatory Project no Internali. UN U W WO 1
	k: 206-352-7178	Project Name: City o	(Seattle	Special Remarks:
dient ATC		Project No:		
Address;		collected by: <u>b</u> , <u>G</u> , G	ulet	
City, State, Zip:		Location:		
Telephone:		Report To (PM): N. Ba	stami	Sample Disposal: Return to client Disposal by tab (after 30 days)
Fax:		PM Email:		
Sample	Sample Type	The second second	An and a set of the se	
1 585-5' 04/15/2021	1105 525	3 XX X	T X X	
2 585-10'	1330			hold
3 585-15'	335			hold
4 585-20'	340 1	<		hold
\$ 58~1	GW	¢ ××	X X 1/9	
6 56-2			X X T/g	
z sb3			V X X	
8 JB-4			XXTO	
\$-82 e	350 1		X X TID	+ Hexavalent Chromium
10				
*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Pro	duct, S = Soil, SD = So	idiment, SL = Solid, W = Water, L	W = Drinking Water, GW = Ground Wat	iter, SW = Storm Water, WW = Waste Water Turn-around Time:
**Metals (Circle): MTCA-5 (RCRA-8) Priority Pollutants	TAL Individua	1: Ag Al As B Ba Be Ca Cd C	o Cr Cu Fe Hg K Mg Mn Mo Na	NI Pb Sb Se Sr Sn Ti TI V Zn X Standard U Next Day
***Anions (Circle): Nitrate Nitrite Chloride	Sulfate Bromid	0-Phosphate Fluoride	Nitrate+Nitrite	3 Day Same Day
I represent that I am authorized to enter into thi to each of the terms on the front and backside of	Agreement with this Agreement.	Fremont Analytical on beha	If of the Client named above, th	tat I have verified Client's agreement
Relinquished (Signature) × A Haull B Gov	1 t 06-15	$2021/\sqrt{5:00}$	* (UALLUSA)	~ Clluxbhulurion U/15721 1544
Relinquished (Signature) Print Name x		oate/Timé	Received (Signature) ×	Print Name Date/Time
COC 1.3 - 11.06.20		www.fremo	ntanalytical.com	Page