

Via E-Mail:

July 26/2015

Mr. Colby Northridge Ms. Lauren Brewer Project Manager Oakland International Housing Partner, L.P. 18201 Von Karman Ave, Suite 900 Irvine, CA 92612

Subject:Soil Investigation Report94th and International Blvd., Oakland, CA9400-9500 International Blvd. | Oakland, California

Dear Mr. Northridge:

At your request, Applied Remedial Services, Inc. (ARS) has prepared the following Soil Investigation Report (SIR) to present the findings of soil sampling activities at the properties located on 9400-9500 International Blvd. in Oakland, CA (the "Site"). The assessment was conducted as a result of the proposed development of the site and the generation of a soil stockpile from mass and structural excavations on the property.

ARS advanced nine (9) borings at the site and collected twenty seven (27) soil samples from various depths between two (2) feet and ten (10) feet beneath the ground surface (bgs). The samples were analyzed for petroleum hydrocarbon related compounds, heavy metals, polychlorinated biphenyls, volatile organic compounds, semi-volatile organic compounds, chlorinated pesticides and asbestos containing materials in order to characterize the soil for offsite disposal.

We appreciate the opportunity to provide this report of findings to you for this project. Should you have any questions or comments, please do not hesitate to contact me at (925) 943-7742 (Office) or (707) 567-2202 (Cell) or E-mail me @ mmkara707@aol.com.

Sincerely,

Michael F. Kara Principal Toxicologist Registered Environmental Property Assessor # 386340 Registered Lead Sampling Technician # 21985

cc Mr. Larry Cochran, CRMI





Contents

1.0	INTRODUCTION	4
2.0	SITE DESCRIPTION	5
2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11	SITE DESCRIPTION Location and Legal Description Site Specific Information Site and Vicinity General Characteristics Description of Property Structures and Improvements Physical Setting Previous Site uses Sites in the vicinity of the Property with Environmental Issues Akxner Construction, 9512 Plymouth Street Gas Station, 9000 East 14th Street BJA Inc. Gas Station, 9800 International Blvd ARCO #02185, 9800 East 14m Street	
2.12	PACIFIC BELL, 8925 HOLLY STREET	10
3.1 3.2 3.3 3.4 3.5	PRE-FIELD ACTIVITIES DRILLING AND SAMPLING OF SOIL BORINGS LABORATORY ANALYSIS OF SOIL SAMPLES CHAIN OF CUSTODY DOCUMENTATION LABORATORY QA/QC PROCEDURES	
4.0	RESULTS OF THE INVESTIGATION	15
4.1	LABORATORY ANALYTICAL RESULTS	15
5.0	DISCUSSION OF RESULTS	18
6.0	COMPARISON OF RESULTS TO AGENCY THRESHOLDS	22
6.1 6.2 6.3 6.4 6.5	CHEMICAL DESCRIPTION AND EFFECTS OF EXPOSURE TO LEAD ON-SITE RECEPTORS CONSTRUCTION WORKERS CHEMICAL DESCRIPTION AND EFFECTS OF EXPOSURE TO ARSENIC OFF-SITE RECEPTORS RESIDENTS SITE SAFETY OFFICER	
7.0	CONCLUSIONS AND RECOMMENDATIONS	28

- APPENDIX 1 SOIL BORINGS
- APPENDIX 2 FIGURES
- APPENDIX 3 TABLES
- APPENDIX 4 LABORATORY CERTIFICATES OF ANALYSIS



SOIL INVESTIGATION REPORT

94th AND INTERNATIONAL BOULEVARD 9400-9500 INTERNATIONAL BOULEVARD | OAKLAND, CA

Prepared for:

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July 26, 2015



SOIL INVESTIGATION REPORT

94th AND INTERNATIONAL BOULEVARD 9400-9500 INTERNATIONAL BOULEVARD | OAKLAND, CA

1.0 INTRODUCTION

At the request of Applied Remedial Services, Inc. (ARS) client (Related California), ARS has prepared the following Soil Investigation Report (SIR) to convey the results of soil sampling activities at the 94th and International property located on 9400-9500 International Blvd. in Oakland, CA (the "Site"). The assessment was conducted as a result of the proposed development of the site and the generation of a soil stockpile from mass and structural excavations on the property.

ARS advanced nine soil (9) borings at the site and collected twenty seven (27) soil samples from various depths ranging between two (2) feet and ten (10) feet beneath the ground surface (bgs). The samples were analyzed for petroleum hydrocarbon related compounds (PHCs) such as TPHg (gasoline), TPHd (diesel) and TPHmo (motor oil), heavy metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), chlorinated pesticides and asbestos containing materials (ACM) in order to characterize the soil for offsite disposal.

The assessment was conducted as a result of future soil stockpile generation from the excavation of foundation members and a garage at the site as part of the structural and mass excavations at the property.

Considering that the Site will undergo a large subsurface excavation, significant amount of soil will have to be exported; potential environmental contaminants may be present in the soil based on the prior use of the site. ARS advanced nine (9) spatially distributed borings at the property. The locations of the borings were chosen based on the following reasons:

- 1) Issues were discovered during conducting a Phase I Environmental Site Assessment in June 2015 at the site;
- Collecting six (6) soil samples from two (2) borings which were advanced by the geotechnical firm Rockridge Geotechnical (RG);
- 3) Conversations with Consulting Associates of California (CAC) which was conducting an Asbestos and Lead paint survey of the structures at the Site in late June 2015; and
- 4) ARS' observations of irregular topography and physiochemical conditions at the Site which were discovered during our site walk.



As a result of the previously mentioned reasons ARS advanced nine (9) soil borings to ten (10) feet below ground surface (bgs).

The data from the soil boring investigation will be utilized to assess:

- 1) Current contaminant levels in subsurface soil;
- 2) Profile soil in place for offsite disposal/recycling options; and
- 3) Evaluate the need if any, for any personal protective clothing by construction workers involved in subsurface foundation construction activities.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Property is located in a mixed commercial/residential of southeast Oakland, with primarily commercial land use along International Boulevard and single family residential land use east and west away from International Boulevard. According to the USGS 7.5-Minute Quadrangle, San Leandro, California Map, the Property lies on a gently west-southwest sloping plan approximately 2.0 miles east from the San Leandro Bay and 1.5 miles southwest from the Oakland Hills. Based on topography and location, we would expect groundwater flow in the site area to be to the west.

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Address	APN #	Business/Latest Occupancy
9500-9502 International Blvd	46-5423-18-2	Main Clinic (drug rehabilitation clinic) Exam
9442 International Blvd	46-5423-19	Rooms and clinic physician offices Food
9440 International Blvd	46-5423-19	Giveaway Building
9434 International Blvd	46-5423-20	De Calores Restaurant (Unoccupied) Eleganthia
9430 International Blvd	46-5423-20	(furniture store) Easement to Hawthorne Street
9428 International Blvd	46-5423-21	Apartment Bldg, (has approx. 6 units)
9426 International Blvd	46-5423-21	Duplex (unoccupied/condemned
9424 International Blvd	46-5423-22	Church parking lot Church (formerly bank)
9414, 9418, 9420 International Blvd	46-5423-2-2	
& and 1424 94 th	46-5423-2-2	
9400 International Blvd	46-5423-1-1	
No Specific Address between 9419 & 9425 Holley Street	9 46-5423-7	

The Property is includes three commercial buildings which are generally dilapidated and either not in use or marginally used.



The Site is bordered by the following properties:

North	Northwest from the Property are various commercial businesses along International
	Boulevard. Northeast from the Property are residential properties.
East	East from the Property are residential properties.
South	South from the Property on both sides of International Boulevard is a Hispanic grocery store/restaurant. Further south along International Boulevard are various commercial businesses.
West	West from the property across International Boulevard are various vacant and commercial/retail properties, followed by residential properties.

2.2 Site Specific Information

The addresses for the Property include even-numbered addresses between 9400 and 9500 International Boulevard (formerly East 14th Street), Oakland, California, 94603 (see Figure 1 and Figure 2). The Property encompasses a nominally rectangular land parcel measuring approximately 316 feet by 150 feet located on the east side of International Boulevard between 94th Avenue and 96th Avenue in Oakland, Alameda County, California. The Property is located at an elevation of approximately 30 feet above mean sea level. The Property is located at latitude of 37° 44' .49.20" North, and longitude of 122° 10' 18.84" West, and the assessor's parcel numbers for the Property are:

Address	<u>APN</u>
9400 International	046-5423-1-1
9414, 9418, 9420 International and 1424 94 th	046-5423-2-2
9424 International	046-5423-22
9426, 9428 International	046-5423-21
9430, 9434 International	046-5423-20
9440, 9442 International	046-5423-19
9500, 9502 International	046-5423-18-2
No address but between 9419 and 9425 Holly Street	046-5423-7

2.3 Site and Vicinity General Characteristics

The Property is located in a mixed commercial/residential of southeast Oakland, with primarily commercial land use along International Boulevard and single family residential



land use east and west away from International Boulevard. The Project Site is comprised of nine individual addresses and five buildings located within a city block bounded by 94th Avenue to the north, 96th Avenue to the south and International Boulevard directly to the west. Holly Street bounds the block to the east side.

During the site reconnaissance, we conducted a drive-by inspection of areas surrounding the Property. The purpose of the site area reconnaissance was to identify sites in the vicinity that may pose a risk to the Property environment.

The Property is located in a mixed commercial/residential of southeast Oakland, with primarily commercial land use along International Boulevard and single family residential land use east and west away from International Boulevard. According to the USGS 7.5-Minute Quadrangle, San Leandro, California Map, the Property lies on a gently west-southwest sloping plan approximately 2.0 miles east from the San Leandro Bay and 1.5 miles southwest from the Oakland Hills. Based on topography and location, we would expect groundwater flow in the site area to be to the west.

2.4 Description of Property Structures and Improvements

The Property currently includes three relatively old commercial building structures in various states of disrepair. Storage and/or parking areas are present on the east side of the Property. East Bay Municipal Utility District (EBMUD) supplies the drinking water to the site. Gas and Electricity are provided to the Property by Pacific Gas & Electric Company (PG&E). Trash service for the Property is provided by Waste Management.

2.5 Physical Setting

The Site elevation is approximately 31 feet above mean sea level. According to the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report from the Cal-RWQCB, June 1999, the site is located within the Oakland Sub-area of the East Bay Plain of the San Francisco Basin. The Oakland Sub-area contains a sequence of alluvial fans. The alluvial fill thickness ranges from 300 to 700 feet deep.

Soils in this region are typically underlain by silts and clays with 1 to 10 foot thick



intervals of sand to a total depth of 30-feet below ground surface (bgs). Typically 3 to 7 feet of sand are encountered in this area during soil boring investigations. Regional lithology consists typically of an upper one or two feet layer of fill. Layers of silts and usually detected beneath the fill and range from two to ten feet bgs. Sands and silty clayey sands are typically encountered at depths ranging from approximately eight to eighteen feet bgs. Silts and clays are usually observed in between 15-20 feet bgs. Sands, silty and clayey soils have been generally documented from 20 to 30 feet bgs.

2.6 Previous Site uses

From Sanborn maps of the Site area, it appears that there was a history of a bank, multiple apartment complexes, residential dwellings and some store fronts. The maps do not indicate the presence of industrial or heavy commercial activities at the Site.

Commercially available databases included two Property listings: (1) Acts Full Gospel Church at 9400 International Boulevard is included on the HAZNET list; and (2) Elmhurst Cleaners & Laundromat at 9434 East 14th Street (currently International Boulevard) is included on the EDR Historical Cleaners list. The HAZNET listing for Acts Full Gospel Church refers to the lawful offsite disposal of 0.54 tons of oil/water separator sludge. This listing, by itself, does not indicate a significant environmental concern for the Property. The EDR Historical Cleaners listing for Elmhurst Cleaners & Launderette includes a date of 1967. Potential dry cleaning solvent (Stoddard solvent or Tetrachloroethene) releases from this cleaner could have impacted soil beneath the Property.

A small fenced area measuring 15 feet by 12 feet along the eastern side behind the Church in the parking lot shown on photo 2 contained evidence of petroleum, grease, paint stains and corrosion on approximately six square feet of concrete floor. There were marks on the floor that resembled a 75-100 gallon rectangular steel structure like an aboveground tank that appeared to containerize oil and grease and there were signs of



discharge on the concrete slab within this area of the parking lot. There was a rancid odor emanating from this area that reeked like a mixture of old decayed refuse and petroleum compounds.

Finally, one possible recognized environmental condition (REC) from historical offsite properties and businesses was detected. Historical Sanborn Maps indicate the presence of an electric train system (Oakland Traction Company and Key System Transit Company) facility just east of the Property, covering the east half of the city-block. This facility was present from at least 1896 to 1939 and included a machine shop, a repair shop, electric generation equipment, electric car barns, and cooling ponds. It is possible that a wide range of solvents, oils, and lubricants were used at this facility and may have impacted environmental conditions on the Property.

2.7 Sites in the vicinity of the Property with Environmental Issues

The following sites are further discussed because of their proximity to the site (0 to 1/8 mile) and higher or equal elevation to the subject site with respect to the potential for contaminant migration by surface- water and/or groundwater pathways. Regional groundwater flow in the area of the subject property is toward the west. Surface water flow presumably follows regional topography, which slopes to the west.

2.8 Akxner Construction, 9512 Plymouth Street

AKXNER Construction is a small quantity generator (SQG). The facility is on the RCRA SQC list which is a designation for companies that generate, store, treat, transport and/or dispose of hazardous waste as defined by RCRA. The site has no violations found and does not handle fuel oil but is listed as handling organic solids. The site activities are not believed to pose a potential for migration of pollution to the subject site.

2.9 Gas Station, 9000 East 14th Street

This site is listed on the Leaking Underground Storage Tank (LUST) CORTESE and CS listing. The leaking underground fuel tank (LUFT) leaked in 1993. Subsurface investigations discovered the leak in 1994 and reported closed in approximately 1996.

The site has a case closed status from 1996, # 01 2131. The site activities are not believed to pose a potential for migration of pollution to the subject site.

2.10 BJA Inc. Gas Station, 9800 International Blvd

BJA is a gas station site that was installed in 1973. The site has three underground gas storage tanks and one used oil tank. The site is on the Historical UST listing. The current status of the site is that pollution characterization is ongoing. The site activities are not believed to pose a potential for migration of pollution to the subject site.

2.11 ARCO #02185, 9800 East 14m Street

This gas station is on the CORTESE, LUST and UST listings for an underground gas storage tank and MTBE. The current status of the site is that pollution characterization is ongoing. The site activities are not believed to pose a potential for migration of pollution to the subject site.

2.12 Pacific Bell, 8925 Holly Street

Pacific Bell is a small quantity generator (SQG). The facility is on the RCRA SQG list which is a designation for companies that generate, store, treat, transport, and/or dispose of hazardous waste as defined by RCRA. The site has no violations reported. The site activities are not believed to pose a potential for migration of pollution to the subject site.

3.0 **REPORT ELEMENTS**

This report has been drafted to describe the process involved with advancing nine (9) soil borings (SB-1through SB-9) that were installed on the property and were sampled by ARS between two (2) and ten (10) feet bgs. The laboratory analyzed discrete samples based on suspect analytes that ARS chose as follows are presented in Tables 1-3.

The analytes that were tested were the likely contaminants Petroleum Hydrocarbon Compounds (PHCs), gasoline (TPHg), diesel (TPHd), motor oil (TPH mo), and their aromatic and oxygenated components, Benzene, Toluene, Ethylbenzene, Xylene(s) and MTBE, Polychlorinated Biphenyls (PCBs), Heavy Metals, Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Lead, CAM 17 Heavy Metals and



Asbestos Containing Materials (ACMs).

The borings were located within the future footprint of the proposed new building at the Site (Figure 3) and at locations that we detected aberrations in topography and physical signs of spillage or masses of construction debris that was discarded at the property. All tasks were conducted in accordance with the approved proposal and with all applicable regulatory guidelines and statutes.

3.1 Pre-field Activities

ARS visited the Site and collected the soil samples on July 2, 2015, the Alameda County Public Works Agency-Water Resources issued permit number 1435332858652 to ARS, a copy of the permit notification is attached in Appendix 1. An underground survey of the locations of the borings was conducted prior to drilling. Prior to initiating sampling activities, a Site Safety Plan was prepared, and a tailgate safety meeting was conducted.

3.2 Drilling and Sampling of Soil Borings

Initially ARS was supposed to collect eight (8) soil borings, however during the collection of the last boring which was behind the former dry cleaner site located at 9434 International Blvd. ARS's staff noted mounds of construction debris, bricks, mortar, nails, spilled paint and a variety of non-native materials in the backyard of the adjacent building located at 9430 International Blvd. (Photos). A decision was made to collect an additional boring (SB-9) and analyze it for a full scan of analytes because it was obvious that the materials have been "dumped" over an extended period of time at this backyard and the fill was from an unknown origin.

The samples were collected in acrylic tubes. The drive probe was equipped with nominal 2" diameter stainless steel tube that line the interior of the probe. The probe and insert tubes were together pneumatically driven using the hammer at 2-foot intervals. After each drive interval the drive probe and rods were retrieved to the surface. The steel tube containing subsurface soil was then removed. The drive probe was then cleaned,



equipped with a new stainless steel and reinserted into the boring as required. The apparatus was then driven following the above procedure until the desired depth is obtained. The tubes and soil were inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples were screened for organic vapors using an organic vapor analyzer (OVA). OVA readings, soil staining and other relevant observations were recorded.

The acrylic tubes were sliced at various depths of two (2), six (6) and ten (10) feet for analytical purposes. All coring and sampling equipment were thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water. The tubes were then labeled, sealed in a plastic bag, and placed in an ice chest cooled to 4°C with crushed ice for temporary field storage and transportation. The standard chain-of-custody protocol was maintained for all soil samples from the time of collection to arrival at the laboratory.

3.3 Laboratory Analysis of Soil Samples

Soil Samples were analyzed for chemical components that were presented in Section 3 Table 1 of this report.

- 1) TPH-Multi-range Gasoline, Motor Oil & and Diesel SW 8015B;
- 2) CAM 17 via US EPA 6020 Heavy Metals;
- 3) Polychlorinated Biphenyls via EPA 8082; and
- 4) VOCs via EPA 8260;
- 5) SVOCs via EPA 8270;
- 6) Chlorinated Pesticides via EPA 8081; and
- 7) Bulk Asbestos Containing Material via PLM

All analyses was conducted at McCampbell Analytical, Inc. of Pittsburg, CA (McCampbell) a State-certified chemical testing laboratory, DHS ELAP License # 1644, NELAP License # 12283CA with a five day turnaround on results.



3.4 Chain of Custody Documentation

COC documentation was completed by the field sampler immediately following material sampling. The COC documentation was signed as relinquished and received each time the sample changed possession. The COC documentation, at a minimum, contained the following elements:

- Project name and number;
- Project contact and phone number;
- Name of field samplers;
- Sample identification numbers;
- Sample date and time of collection;
- Sample matrix;
- Number of containers submitted for each sample;
- Sample container type;
- Analyses requested;
- Turnaround time requested for analyses;
- Preservation of sample containers (if applicable);
- Name and address of analytical laboratory; and
- Comments if applicable.

3.5 Laboratory QA/QC Procedures

The following laboratory QA/QC elements were performed by McCampbell for each analytical method utilized on this project:

- Method Blank;
- Laboratory Control Spike;
- Laboratory Control Spike Duplicate;
- Matrix Spike; and
- Matrix Spike Duplicate.

Analytical data reports from the laboratory were reviewed for compliance with



laboratory QA/QC criteria for this project. The reported laboratory QA/QC results were within acceptable control limits. Items reviewed include holding time in the laboratory prior to extraction; and percent recovery laboratory for QC samples. Laboratory reports for these QA/QC controls are included in Appendix 2 of this report.

The laboratory reported date of sample extraction indicates that all samples were extracted and analyzed within their respective EPA recommended holding times. Dates of sample collection, extraction and analysis are included in the laboratory analytical reports are also provided in Appendix 2. Upon receipt of the analytical data from MacCampbell, the following items were evaluated ARS:

- Sample holding times were met;
- QC sample results were within established laboratory control limits;
- Data package included all requested deliverables;
- Samples were analyzed as requested;
- Appropriate detection limits were obtained;
- Preservation/Temperature;
- Calibration criteria; and
- Blank sample results.



4.0 RESULTS OF THE INVESTIGATION

This section of the report presents ARS field findings and the results of chemical analysis that was performed on the soil samples. Laboratory analytical reports are presented in Appendix 2. Results of soil analysis are presented in the tables and discussed in the following section.

4.1 Laboratory Analytical Results

Results of the chemical analyses were evaluated using the following regulatory criteria:

Whether the soil at the Site meets the legal definition of Hazardous Waste per Section Health & Safety Code (H&SC 25117), California Code of Regulation (CCR 66260.10) and whether it meets the definition of non-hazardous (contaminated) waste per section 20220. SWRCB - Nonhazardous Solid Waste. (C15: Section 2523).

(a) **Definition**—Nonhazardous solid waste means all putrescible and nonputrescible solid, semi solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentrations which exceed applicable water quality objectives, or could cause degradation of waters of the state (i.e., designated waste).

Results of the chemical analyses performed on the soil boring samples indicated the following, the results are tabulated at the end of the report:

• Total Petroleum Hydrocarbons (TPHs), BTEX and MTBE:

- TPHs as gasoline were detected at up to 3.2 mg/kg in SB2-2'; the detected concentration was below the ESL of 100 mg/Kg;
- BTEX and MTBE were not detected (ND) in any soil sample above their respective detection limits;
- TPHs as diesel were detected in soil samples at concentrations ranging from ND to 51 mg/Kg. The detected concentrations were below the ESL of 100 mg/Kg; and
- TPHs as motor oil was detected soil samples between ND and 560 mg/kg. The detected concentrations were above the ESL of 100 mg/Kg.



• Title 22 Metals:

- Antimony was detected in the soil samples at concentrations ranging from 0.51 mg/kg to 3.3 mg/kg. The detected concentration of antimony was <u>above</u> the respective ESL of 2 mg/Kg;
- Arsenic was detected in the soil samples at concentrations ranging from 4.5 mg/kg to 14 mg/kg. The detected concentrations of arsenic were <u>above</u> the respective ESL of 0.39 mg/Kg;
- Barium was detected in the soil samples at concentrations ranging from 270 mg/kg to 1,800 mg/kg. The detected concentrations were **above** the ESL of 750 mg/Kg;
- Beryllium was not detected in soil samples at concentrations ranging from 0.51 mg/kg to 0.71 mg/kg. The detected concentrations of Beryllium were below the ESL of 4 mg/kg;
- Cadmium was detected in soil samples at concentrations ranging from 0.54 mg/kg to 1.9 mg/kg. The detected concentrations were below the ESL of 12 mg/Kg;
- Chromium was detected in soil samples at concentrations ranging from 44 mg/Kg to 61 mg/Kg. The detected concentrations were below the ESL of 1,000 mg/Kg. However, the detected concentrations were at ten (10) times the Soluble Threshold Limit Concentration (STLC) set at 5 mg/L, therefore an STLC extraction was ordered on all soil samples with Total Threshold Limit Concentrations (TTLC) in excess of 50 mg/kg (all soil samples). The results indicated the presence of soluble chromium between 0.09 mg/l to 0.1 mg/l, the detected concentrations are well below the hazardous waste STLC regulatory level of 5 mg/l;
- Cobalt was detected in soil samples at concentrations ranging from 7.2 mg/Kg to 32 mg/Kg. The detected concentrations were <u>above</u> the ESL of 23 mg/Kg;
- Copper was detected in soil samples at concentrations ranging from 35 mg/Kg to 83 mg/Kg. The detected concentrations were below the ESL of 230 mg/Kg;
- Lead was detected in soil samples at concentrations ranging from 8.3 mk/kg to 950 mg/kg. The detected concentrations were <u>above</u> the ESL of 80 mg/Kg;
- Mercury was detected in soil samples at the site at concentrations ranging from .055 mk/kg to 15. The detected concentrations were **above** the ESL of 6.7 mg/Kg;
- Molybdenum was detected in soil samples at concentrations ranging from 0.52 mg/kg to 0.89 mg/kg. The detected concentrations were below the ESL of 40 mg/Kg;
- Nickel was detected in soil samples at concentrations ranging from 42 mg/kg to 75 mg/Kg. The detected concentrations were below the ESL of 150 mg/Kg;
- Selenium was detected in soil samples at concentrations ranging from 0.57 mg/kg to 0.58 mg/kg; The detected concentrations were below the ESL of 10 mg/kg;
- Silver was not detected in soil samples at the site;



- Thallium was not detected in soil samples at the site;
- Vanadium was detected in soil samples at concentrations ranging from 52 mg/Kg to 62 mg/Kg. The detected concentrations were below the ESL for vanadium of 200 mg/Kg; and
- Zinc was detected in soil samples at concentrations ranging from 62 mg/Kg to 930 mg/kg. The detected concentrations were **above** the ESL of 600 mg/Kg.
- Chlorinated Pesticides were detected in soil samples at the site.
 Chlordane was detected at 0.84 mg/kg; the detected concentration was <u>above</u> the ESL of 0.44 mg/kg.
- DDD was detected in soil samples between .0024 mg/kg and .018 mg/kg; the detected concentrations were below the ESL of 2.4 mg/kg.
- DDE was detected in soil samples between 0.0022 and 0.0048 mg/kg; the detected concentrations were below the ESL of 1.7 mg/kg.
- DDT was detected in soil samples at 0.0043; the detected concentration is below the ESL of 1.7 mg/kg.
- Dieldrin was detected in soil sample at 0.0043 mg/kg; the detected concentration was **above** the ESL of 0.0023 mg/kg.
- Polychlorinated Biphenyls (PCBs) were not detected above their respective detective detection limits.
- Volatile Organic Compounds (VOCs) were not detected above their respective detective detection limits.
- Semi-Volatile Organic Compounds (SVOCs) were not detected above their respective detective detection limits.
- Asbestos was not detected above its detection limit in soil samples.



5.0 DISCUSSION OF RESULTS

The following presents a discussion of the findings relative to soil disposal and worker safety for the soil samples collected from the borings at the Site.

Results of the soil analyses indicate that the following constituents were detected above their Residential ESL in surficial (2 feet bgs) at the Site:

- 1) Antimony;
- 2) Arsenic;
- 3) Barium;
- 4) Cobalt;
- 5) Lead;
- 6) Mercury;
- 7) Zinc;
- 8) Chlordane; and
- 9) Dieldrin

All chemical constituents were detected below their respective ESL values.

<u>Antimony</u> was discovered at a very low level and only in one sample out of six. So statistically, therefore it was not considered Chemical of Concern (COC).

<u>Arsenic</u> was detected in <u>all samples</u> above its respective ESL value of 0.39 mg/kg. Based on the following rationale, it is believed that the detected concentrations of arsenic in soil are likely representative of background concentration of arsenic at the site:

The spatial distribution of Arsenic observed in the soil samples from the site are all similar concentrations suggesting that the reported concentrations are likely due to naturally occurring Arsenic at the site; and According to RWQCB's *Screening for Environmental concerns at Sites with Contaminated Soil and Groundwater*, naturally-occurring concentrations of Arsenic in soil typically exceed ESLs and therefore alternative screening levels based on regionally-specific established background levels may represent a more appropriate screening level criteria. A search of potential background concentration ranges of Arsenic in soil within the San Francisco Bay Area indicated arsenic in soil for the San Francisco Bay Area are listed at a concentrations in Soils and Other Surficial Materials of the Conterminous United States). The range of Arsenic observed in soil samples at the site is within the range of Arsenic background concentration in soil within the San Francisco Bay Area based on the referenced documents reviewed. Because the range of Arsenic concentrations for the San Francisco Bay Area based on the samples is similar to the background concentration range cited above for the San



Francisco Bay Area, it is not anticipated that additional site characterization or remediation will be required for Arsenic.

Relative to soil disposal, it is likely, based on the soil laboratory analytical results, that the soil is not hazardous and can be disposed of at an approved Class II landfill permitted to accept this soil or can even be exported to an accepting import site based solely on the Arsenic levels.

The Department of Health and Human Services (DHHS) has concluded that inorganic arsenic is known to be a human carcinogen. The International Agency for Research on Cancer (IARC) cites sufficient evidence of a relationship between exposure to arsenic and human cancer. The IARC classification of arsenic is Group 1. The EPA has determined that inorganic arsenic is a human carcinogen by the inhalation and oral routes, and has assigned it the cancer classification, Group A. EPA has calculated an oral cancer slope factor of 1.5 (mg/kg/day)⁻¹ for inorganic arsenic based on human dose-response data. The Permissible Exposure Limit (PEL) for inorganic Arsenic by OSHA for occupational exposure is set at 0.01 mg/m³. That is a very low level; our average Arsenic levels at the site are 13.3 mg/kg, because maximum contaminant levels are above RWQCBs ESLs which is 0.39 mg/kg for construction worker safety, a Risk Management Plan (RMP) will most likely be required to protect Site workers during all subsurface-related construction activities. The RMP will basically specify that:

- 1) A thorough site-specific Health and Safety Plan (HSP) should be prepared and implemented during the excavation and loading activities;
- 2) A Dust Control Plan (DCP) should be prepared, the extent of which would involve keeping the dust to an absolute minimum; and
- An Air Monitoring Plan for Lead and Arsenic should be implemented for few days for reasons that we will describe later in the report.

The HSP will likely require air monitoring and implementation of best management practices (BMPs) to insure both worker and pedestrian/public safety throughout the project.



<u>Barium</u> was discovered at a very low level and only in one out of six soil samples. So statistically, therefore it was not considered Chemical of Concern (COC).

<u>Cobalt</u> was discovered in two soil samples with an average soil concentration of 30 mg/kg, the ESL is 23 mg/kg, therefore it was not considered Chemical of Concern (COC) based on its lack of toxicity. Feeding luxurious amounts of cobalt to ruminants enhances ruminal digestion of feeds, especially poorer quality forages, apparently because it stimulates the production of certain microbial populations that have higher cobalt requirements. Good hay will contain adequate cobalt; Kentucky bluegrass, known to nourish the most magnificent horses, is relatively high in cobalt. Dairy cattle in confinement receive feed to which is added cobalt sulfate at a rate of about 2 grams per ton.

Cobalt is actually a plant "bio-stimulant," similar to molybdenum, because it is required by nitrogen-fixing bacteria, especially on the root nodules of legumes. Like all trace elements in the soil, cobalt is a precursor to enzymes. Enzymes are produced by plants and microbes in order to increase the uptake of elements as well as assist in the synthesis, within the crop, of raw materials that are necessary to produce completely nutrient-dense foods suitable for consumption by livestock and humans. These nutrient-dense compounds found in the pigments are necessary for the plant to resist fungal and insect attack. Consumed by animals and humans, these compounds act as anti-oxidants, immune fuels, endocrine balancers, anti-microbial, tissue repair enhancers and free radical scavengers. Cobalt thus belongs to the family of rare elements that contribute so much to the soil organisms, to plant performance and to healthy animal physiology.

The primary effects of cobalt on respiratory tissues are seen following inhalation exposure, and include diminished pulmonary function, increased frequency of cough, respiratory inflammation, and fibrosis; reported effect levels in occupationally-exposed humans have ranged from 0.015–0.13 mg Co/m³. Animal studies have further identified respiratory tract hyperplasia, pulmonary fibrosis, and emphysema as sensitive effects of cobalt on respiratory tissues. A number of these effects are believed to be the result of the generation of oxidants and free radicals by the cobalt ion. Cobalt exposure also results in sensitization of the immune system, which may result in asthmatic attacks following



inhalation of cobalt in sensitized individuals.

The Permissible Exposure limit (PEL) which is the level that the employer shall assure that no employee is exposed to at a concentration averaged over any 8 hour period for Cobalt is $50 ug/m^3$.

Lead was discovered in four out of six samples at hazardous waste levels and at levels that were far in excess of Residential-ESL levels. The Lead however was sequestered in the upper 2 foot layer of beige sandy gravel clay layer with no lead present in the lower dark clay layer beneath it. So it is contained vertically, the issue though is that we do not know the lateral extent of the lead impacted soil because most this lead was "dumped " in the form of a surface leak, as such, the potential for Lead impacted media whether it was from petroleum oil or leaded paint chips that were solubilized to arrive into the second layer of soil which is the impervious dark clay layer and then travel laterally (sideways) is very possible, therefore we caution that that the lead impacted soil in the vicinity of soil borings SB-1 and SB-2 may have spread surficially but in a shallow zone and could have contaminated a larger parcel of land.

We cannot predict the size of this area surrounding all hazardous waste soil borings from one single source point in space, we would need several points on all sides of this source area in the shallow zone at 2-3 feet bgs in order to convey a more precise volume of soil that has been impacted. This activity can be done by a hand auger and does not require a permit.

Mercury

Was detected in one out of seven (7) samples, it was detected in the sample SB-2 near the white building within the Church's parking lot. In the past mercury was used in many water-based latex paints as a fungicide to prevent the growth of bacteria. Its use in interior and exterior latex paint was discontinued in the United States in 1991. Therefore it is not a site soil contaminant but a contaminant within the paint in the white building.



Remediation of the paint from this building must be done very carefully in order not to spread mercury laden paint chips/dust into the soil surrounding the building and north of the building into the soil of the parking lot.

<u>Zinc</u>

The average Zinc level is around 800 mg/kg which is not significantly over the ESL over 600 mg/kg. It was detected in two out of six samples. We do not believe that Zinc is a COC because removal of the Lead will remove the Zinc as a co-contaminant.

Chlordane and Dieldrin

Have been used for termite control in the old days, they are persistent chlorinated pesticides; soil at the property should be screened for Dieldrin and Chlordane below the upper two feet after Class II soil disposal by collecting confirmatory clearance samples to insure that the remaining levels in the soil below the upper two (2) feet are lower than <u>Residential ESLs</u>; because there appears to be some evidence that these two chlorinated pesticides are present in limited areas at the site in concentrations in excess of the ESLs. These pesticides are most likely present in and around perimeters and foundations of old apartment buildings.

6.0 COMPARISON OF RESULTS TO AGENCY THRESHOLDS

Soil at the site will be disturbed due to construction activities in connection with the construction work. The soil has been shown to be impacted with primarily two (2) heavy metals, Arsenic and Lead. These heavy metals have been detected at concentrations that exceed the Residential Soil Regional Water Quality Control Board Environmental Screening Levels (ESLs) which are the most sensitive thresholds and are also used for Worker Exposure limits. Lead has been detected at hazardous waste concentration levels.

Therefore, in consideration of the presence of these hazardous substances in the disturbed soil, ARS has evaluated the potential exposure to dust by off-site receptors (e.g., adjacent residents and pedestrians), workers, and how potential exposure to dust will be managed

in regard to on-site receptors (construction workers) in relation to applicable regulatory requirements during the construction excavation and loading processes.

6.1 Chemical Description and Effects of Exposure to Lead

Lead (inorganic) is a bluish-white or grey, odorless, insoluble, metal solid. Exposure to lead can cause lassitude, insomnia, anorexia, encephalopathy, constipation and paralysis. The target organs of lead are gastrointestinal tract, kidneys, blood and gingival tissue.

The Permissible Exposure Limit (PEL) for lead and its compounds expressed as a TWA is 50 ug/m³ The Immediately Dangerous to Life or Health concentration (IDLH) for lead is 700 mg/m³. In accordance with OSHA's 1910.1025 (Lead), the following actions must be implemented at the Site in accordance with the following government standards:

1910.1025(d) (3) (i)

The employer shall monitor employee exposures and shall base initial determinations on the employee exposure monitoring results and any of the following, relevant considerations:

1910.1025(d) (4) (i)

Where a determination conducted under paragraphs (d)(3) of this section shows the possibility of any employee exposure at or above the action level (30 ug/m^3), the employer shall conduct monitoring which is representative of the exposure for each employee in the workplace who is exposed to lead.

1910.1025(d) (8) (i)

The employer must, within 15 working days after the receipt of the results of any monitoring performed under this section, notify each affected employee of these results either individually in writing or by posting the results in an appropriate location that is accessible to affected employees.

1910.1025(d) (8) (ii)

Whenever the results indicate that the representative employee exposure, without regard to respirators, exceeds the permissible exposure limit, the employer shall include in the written notice a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.



1910.1025(d) (9)

Accuracy of measurement. The employer shall use a method of monitoring and analysis which has accuracy (to a confidence level of 95%) of not less than plus or minus 20 percent for airborne concentrations of lead equal to or greater than 30 ug/m^3 .

6.2 On-Site Receptors Construction Workers

Construction excavation work activities must be performed at the Site pursuant to a Site Health & Safety plan developed in accordance with 29 CFR 1910.120 (*i.e.*, the "Hazardous Waste Operations and Emergency Response", also known as the HAZWOPER standard). In compliance with this standard, all personnel dealing with disturbed soil at the Site must have the training, experience and medical clearance to work on the Site during hazardous waste removal activities.

During hazardous waste soil removal activities, level C protection will be required for all workers coming in contact with hazardous waste soil. This will include Tyvek, masks with HEPA cartridges, steel toed boots, goggles and nitrile gloves.

Post-hazardous waste removal activities, the potential need for mitigation measures for worker protection will be evaluated based on comparison of air monitoring results to "Action Levels" that will be based on the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for arsenic of $10 ug/m^3$ and the Action level for Lead set at $30 ug/m^3$. In the event air monitoring results exceed these PELs, Hazwoper trained individuals will be required to perform the remaining work.

Arsenic can act as the surrogate for all other particulate exposures (except Lead) because it has the most stringent respirable dust action level of all the potential dust contaminants at this site. In the event the results of ongoing air monitoring indicate contaminant concentrations at least 75% of the established Action Level, developed using the PEL for arsenic, exposure risks will be controlled through the use of personal protective equipment by workers at the Site to prevent their exposure to these contaminants. Such personal protective equipment will be specified in a site-specific health and safety plan. The use of this equipment is designed to minimize the risk of exposure of contaminants by the on-site workers.

6.3 Chemical Description and Effects of Exposure to Arsenic

OSHA's PEL for Arsenic metal in dust is $10 ug/m^3$ (as As). Both arsenate and arsenite are well absorbed by both the oral and inhalation routes. Absorption by the dermal route has not been well characterized, but is low compared to other routes. Prior to 2003, arsenic was used in the production of wood preservatives, primarily copper chromated arsenate (CCA); arsenical wood preservatives have been phased out for certain wood products. Sawing or sanding wood treated with arsenical preservatives can generate arsenic contaminated sawdust. Similarly, burning arsenic-treated wood can result in elevated arsenic levels in smoke. Arsenic and its compounds, especially the trioxide, are used in the production of pesticides, treated wood products, herbicides, and insecticides. These applications are declining, however.

A few species of bacteria are able to use arsenic compounds as respiratory metabolites. Experimentally, tiny quantities of arsenic are an essential dietary element in the rat, hamster, goat, chicken, and presumably many other species, including humans. However, the element often causes toxicity to multicellular life due to its presence in quantities far larger than needed.

Analyzing multiple epidemiological studies on inorganic arsenic exposure suggests a small but measurable risk increase for bladder cancer at 10 ppb. Epidemiological studies have suggested a correlation between chronic consumption of drinking water contaminated with arsenic and the incidence of all leading causes of mortality. The literature provides reason to believe arsenic exposure is causative in the pathogenesis of diabetes.

6.4 Off-Site Receptors Residents

In addition to the air monitoring performed during earth movement activities within the areas in which on-site workers may inhale airborne dust, air monitoring for Arsenic and



Lead will also be performed downwind and up-wind of the earth movement activities – at the boundaries of the Site. The monitoring results will be compared to exposure limits and site specific health-based air action levels will be developed in consideration of the characteristics of the soils that will be disturbed at the Site, as discussed in further detail below.

With respect to Arsenic within the contaminated soil, ARS projects that the risk of exposure to off-site receptors will be well below health-based exposure limits because sampling results indicate that arsenic concentrations in soil are only present at an upper level of 14 mg/kg. At these low concentrations, the release of arsenic into the air from the contaminated soil during excavation activities would be exceedingly limited. In addition, should any emissions actually reach ground surface, considerable mixing and dispersion in ambient air would reduce airborne contaminant concentrations to concentrations well below public health-based limits. In light of the foregoing considerations, the concentrations at or near off-site receptors would be far below all published California health-based exposure limits.

However, with respect to Lead within the contaminated zone, ARS projects that the risk of exposure to off-site receptors and passersby <u>might be above</u> health-based exposure limits because sampling results indicate that Lead concentrations in soil are present at an upper level of 950 mg/kg. At these high concentrations, the release of Lead into the air from the contaminated soil during excavation activities would create risks of exposure to nearby residents and off-site receptors. In light of the foregoing considerations, the concentrations at or near hazardous waste areas identified on Figure 5 would be above all published California health-based exposure limits. Remedial activities must be conducted in accordance to a Dust Control Plan in conjunction with the Air Monitoring Plan to insure compliance with regulatory action framework. In the event, air Lead levels exceed the action level of 30 ug/m³, work should stop at the site until fugitive dust emissions have been abated.



6.5 Site Safety Officer

A Site Safety Officer must be assigned to the site during hazardous and contaminated soil removal activities to insure worker's safety, proper implementation of the Dust Control Plan and to implement Air Monitoring Program. As part of his duties, he shall be responsible for:

- keeping the onsite Contractor & Client representative informed of project health & safety developments; and are informed of potential hazards anticipated at the Site and procedures and precautions to be implemented on the job;
- 2) ensuring that contractors and subcontractors are informed of the expected hazards and appropriate protective measures at the Site; and
- 3) ensuring that resources are available to provide a safe and healthy work environment for contractor personnel.

SSO shall be responsible for:

- 1) assessing the potential health and safety hazards at the Site;
- 2) recommending appropriate safeguards and procedures;
- 3) modifying the HSP, when necessary; and
- 4) approving changes in safeguards used or operating procedures employed at the Site.

The SSO shall have the authority to:

- 1) require that additional safety precautions or procedures be implemented;
- 2) order an evacuation of the Site, or portion of the Site, or shut down any operation, if he believes a health or safety hazard exists;
- 3) deny unauthorized personnel access to the Site;
- 4) require that any worker obtain immediate medical attention; and
- 5) approve or disallow any proposed modifications to safety precautions or working procedures.



7.0 CONCLUSIONS AND RECOMMENDATIONS

The soil at the Site has been shown to be impacted with seven (7) heavy metals above Residential RWQCB ESL Limits, these heavy metals were Antimony, Arsenic, Barium, Cobalt, Lead, Mercury, and Zinc; in addition two (2) chlorinated pesticides were also detected, they were Chlordane and Dieldrin. Two (2) primary heavy metals, Arsenic and Lead were consistently detected at concentrations that exceed the Residential Soil RWQCB ESLs which are the most sensitive thresholds and are also used for Worker Exposure limits. Lead was the only heavy metal which was detected at hazardous waste concentration levels and must be disposed of as California Hazardous Waste at a permitted Class I facility. The remainder of soil at the site within the upper two (2) feet can be disposed of at a Class II permitted landfill. Any soil that is sent offsite for recycling or re-use purposes must be tested at the rate of 1 composite sample per four discrete samples for each 250 cubic yards for CAM 17 heavy Metals, Petroleum Hydrocarbons-Multi-Range and Chlorinated Pesticides prior to the shipment of this soil to the accepting facility regardless of whether the accepting facility agrees to accept this soil without any further testing due to significant liabilities involved with this activity. In addition to heavy metals there were isolated hits of Chlordane and Dieldrin, both chlorinated pesticides, at limited areas of the site near the perimeter and footings of buildings.

Therefore soil at the Site meets the legal definition of Hazardous Waste per Section Health & Safety Code (H&SC 25117), California Code of Regulation (CCR 66260.10) and it also meets the definition of non-hazardous (contaminated) waste per section 20220. SWRCB - Nonhazardous Solid Waste. (C15: Section 2523).

All impacted soil appears to be in the upper two (2) feet bgs, which contained a more sandy gravel beige clay layer than in the lower two (2) feet dark brown to black clay layer. OSHA has strict guidelines for dealing with hazardous waste sites that have been impacted with Lead, which include worker monitoring, air monitoring, and dust control. Arsenic has the lowest OSHA PEL of any heavy metal, therefore although many heavy metals had been detected above their ESLs, Arsenic can act as the surrogate for all other particulate exposures (except Lead) because it has the most stringent respirable dust



action level of all the potential dust contaminants at this site, except that Lead since it was detected at hazardous waste levels must also be included in the air monitoring program, which must be activated during site soil removal and grading activities within the upper two ft. bgs.

The contaminants appear to be contained vertically, however the <u>lateral extent</u> of contamination is <u>not known</u> because most of the Lead impact was discarded in the form of a surface leak, as such, there is a great probability for Lead impacted media whether it was from petroleum oil, leaded paint or leaded paint chips that were solubilized to reach the deeper layer of soil below two ft. which is the impervious dark clay layer and then travel laterally. <u>Therefore we caution that that the spatial extent of Lead impacted soil in the vicinity of hazardous waste soil borings depicted on Figure 5 has not been delineated, Lead impacted soil has most likely spread surficially in the shallow clay zone and has <u>contaminated an unknown surface area of land.</u></u>

ARS cannot predict the size of these impacted areas surrounding the subject borings from one single source point, we would need several points on either side of this source area in order to convey a more precise volume of soil that has been impacted. This proposed investigation would be shallow within the upper 2-3 feet, rapid, limited to Lead and no permits are necessary because we would not be drilling below five (5) ft. bgs. Cost for such an investigation would be on the order of \$12,500 for approximately 28 soil borings.

Confirmatory clearance samples must be collected from every hazardous waste area shown on Figure 5 to confirm that remaining Lead levels are below the acceptable 80 mg/kg Residential-ESL level in wall and floor samples from each excavation pit. Conversely, wall and floor samples must also be collected for Arsenic to insure that the levels are below generally acceptable background levels of 7 mg/kg in walls and floor samples even though that the Residential ESL is 0.39 mg/kg. Confirmatory clearance samples should be collected from the floor post the removal of the soil at the site for Dieldrin and chlordane at the rate of one sample per 2,500 square feet to confirm the



remediation of these pesticides from soil below the two foot layer. Any soil sample containing Chlordane at 0.44 mg/kg total Chlordane or Dieldrin at 0.0023 mg/kg should be removed and disposed of at a Class II permitted landfill.

Construction excavation work activities must be performed at the Site pursuant to a Site Health & Safety plan developed in accordance with 29 CFR 1910.120 (*i.e.*, the "Hazardous Waste Operations and Emergency Response", also known as the HAZWOPER standard). In compliance with this standard, all personnel dealing with disturbed soil at the Site must have the training, experience and medical clearance to work on the Site during hazardous waste removal activities.

Post-hazardous waste removal activities, the potential need for mitigation measures for worker protection will be evaluated based on comparison of air monitoring results to "Action Levels" that will be based on OSHA's PEL for arsenic of 10 ug/m^3 and the Action level for Lead set at 30 ug/m^3 . In the event air monitoring results exceed these levels, Hazwoper trained individuals will be required to perform the remaining work.

A Dust Control Plan in conjunction with the Air Monitoring and Health and Safety Plan will be required to insure compliance with regulatory action framework due to the presence of hazardous waste at the Site. A Site Safety Officer must be assigned during hazardous and contaminated soil removal activities to insure compliance and proper implementation of these programs per regulatory agency mandates.

Based on the currently-available data, by employing the mitigation measures specified above and adhering with the other identified worker protection requirements for particulates, there should be no exposure by on-site receptors to dust containing hazardous substances at levels exceeding the appropriate occupational limits. In addition, as discussed above, there should be no exposure by off-site receptors to dust containing hazardous substances at levels exceeding appropriate public health-based limits.



Appendix 1 Soil Boring Logs

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS		LOG OF MATERIAL	
-	SB-1-2.0	2.0 FT.				0.0 - 1.0 ft.	CONCRETE AND BASE ROCK	
5-	SB-1-6.0	6.0 FT.				1.0 - 10.0 ft.	Silty Clay (CL) Dark olive-grey becoming brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
- 10 - -	SB-1-10.0	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	
- - 15 -								
- - 20 -								

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 10/15/2014

COMPLETION DATE: 10/15/2014

SHEET 1 OF 1

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & COUNTS ♀ - INITIAL ♀ - FINAL	USCS		LOG OF MATERIAL	
-	SB-2-2.0	2.0 FT.				0.0 - 1.0 ft. 1.0 - 2.0 ft.	ASPHALT AND BASE ROCK Silty, Sandy Clay (CL) Brown slight moisture, fine to medium grain sand, no odors or staining	
	SB-2-6.0	6.0 FT.				2.0 - 10.0 ft.	Silty Clay (CL) Dark brown becoming olive-brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
10 - - - -	SB-2-10.0	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	
15 - - - -								
20 -								

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS	LOG OF MATERIAL	
-	SB-3-2.0	2.0 FT.				1.0 - 2.0 ft. Silty, Sandy Clay (CL) Brown slight moisture, fine to medium grain sand, no odors or staining	
5 -	SB-3-6.0 SB-3-10.0	6.0 FT. 10.0 FT.				2.0 - 10.0 ft. Silty Clay (CL) Dark brown becoming brown at 6 fbg, moist, medium stiff to stiff, no odors or staining.	
-						TOTAL DEPTH: 10.0 FEET (below ground surface)	
15 - - - -							
20 -							

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 006/25/2015

COMPLETION DATE: 06/25/2015

SHEET 1 OF 1

DRILLING CONTRACTOR:	EXPLORATION GEO.
DRILLING METHOD:	HOLLOW-STEM
BOREHOLE DIAMETER:	8.0-INCHES
COMPLETION METHOD:	GROUT
BORING TOTAL DEPTH:	10.0 FEET
GROUNDWATER DEPTH:	

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS		LOG OF MATERIAL	
	SB-4-2.0	2.0 FT.				0.0 - 1.0 ft. 1.0 - 10.0 ft.	ASPHALT AND BASE ROCK Silty Clay (CL) Dark brown becoming brown at 8 fbg, moist, medium stiff to stiff no edors or staining	
	SB-4-6.0 SB-4-10.0	6.0 FT. 10.0 FT.						
-							TOTAL DEPTH: 10.0 FEET (below ground surface)	
15 -								
20 -								

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DEPTH SCALE (FEET) ON ON	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ♀ - INITIAL ♀ - FINAL	USCS		LOG OF MATERIAL	
 SB-5-2.0 	2.0 FT.				0.0 - 1.0 ft.	CONCRETE AND BASE ROCK	
- 5 - - - -	6.0 FT.				1.0 - 10.0 ft.	Silty Clay (CL) Dark brown becoming brown at 7 fbg, moist, medium stiff to stiff, no odors or staining.	
- 10 - - -	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	
- 15 - -							
20 -							
BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DRILLING CONTRACTOR:EXPLORATION GEO.DRILLING METHOD:HOLLOW-STEMBOREHOLE DIAMETER:8.0-INCHESCOMPLETION METHOD:GROUTBORING TOTAL DEPTH:10.0 FEETGROUNDWATER DEPTH:

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ♀ - INITIAL ♀ - FINAL	USCS		LOG OF MATERIAL	
-	SB-6-2.0	2.0 FT.				0.0 - 1.0 ft.	ASPHALT AND BASE ROCK	
5 -	SB-6-6.0	6.0 FT.		CL		1.0 - 10.0 ft.	Silty Clay (CL) Dark brown becoming brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
- 10 -	SB-6-10.0	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	
-								
15 - 								
- 20 -								

BORING LOCATION: 94TH AND INTERNATIONAL

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DRILLING CONTRACTOR:PENECOREDRILLING METHOD:DIRECT-PUSHBOREHOLE DIAMETER:2.0-INCHESCOMPLETION METHOD:GROUTBORING TOTAL DEPTH:10.0 FEETGROUNDWATER DEPTH:

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS		LOG OF MATERIAL	
-	SB-7-2.0	2.0 FT.				1.0 - 10.0 ft.	Silty Clay (CL)	
5 -	SB-7-6.0	6.0 FT.					Dark brown becoming brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
10 - 							TOTAL DEPTH: 10.0 FEET (below ground surface)	
15 - 								
20 -								

BORING LOCATION: 2047 N. MAIN STREET

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DRILLING CONTRACTOR:PENECOREDRILLING METHOD:DIRECT-PUSHBOREHOLE DIAMETER:2.0-INCHESCOMPLETION METHOD:GROUTBORING TOTAL DEPTH:10.0 FEETGROUNDWATER DEPTH:

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS		LOG OF MATERIAL	
- - - 5 - - - - -	SB-8-2.0 SB-8-6.0	2.0 FT. 6.0 FT.				0.0 - 1.0 ft. 1.0 - 10.0 ft.	ASPHALT AND BASE ROCK Silty Clay (CL) Dark brown becoming brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
10 - - - 15 - - - 20 -	SB-8-10.0	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	

BORING LOCATION: 2047 N. MAIN STREET

BORING TYPE: SOIL BORING

PROJECT NAME: 94TH AND INTERNATIONAL BLVD OAKLAND, CALIFORNIA

PROJECT NUMBER:

LOG OF SOIL BORING Applied Remedial Services

START DATE: 07/02/2015

COMPLETION DATE: 07/02/2015

SHEET 1 OF 1

DRILLING CONTRACTOR:PENECOREDRILLING METHOD:DIRECT-PUSHBOREHOLE DIAMETER:2.0-INCHESCOMPLETION METHOD:GROUTBORING TOTAL DEPTH:10.0 FEETGROUNDWATER DEPTH:

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING BLOW COUNTS ⊊ - INITIAL ⊊ - FINAL	USCS		LOG OF MATERIAL	
-	SB-9-2.0	2.0 FT.				1.0 - 2.0 ft.	Silty, Sandy Clay (CL) Brown slight moisture, fine to medium grain sand, no odors or staining	
5 - - -	SB-9-6.0	6.0 FT.				1.0 - 10.0 ft.	Silty Clay (CL) Dark brown becoming brown at 8 fbg, moist, medium stiff to stiff, no odors or staining.	
10 -	SB-9-10.0	10.0 FT.					TOTAL DEPTH: 10.0 FEET (below ground surface)	
-								
15-								
20 -								



Appendix 2 Figures













Appendix 3 Tables TABLE 1

Total Petroleum Hydrocarbons, TPH (g), BTEX, MTBE, TPH (D), TPH (MO), Lead, VOCs, SVOCs & Asbestos (mg/kg)

94th and International Blvd, Oakland, CA

Sample	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl	Xylene(s)	MTBE	Lead	STLC	TCLP	CAM	PCBs	VOCs	SVOCs	Asbestos
ID						Benzene				Lead	Lead	17				
ESLs	100	100	100	0.044	2.9	3.3	3.3	0.023	80	NA	NA	NA	0.22	NA	NA	NA
SB1-2'	ND	19	140	ND	ND	ND	ND	ND	<mark>940</mark>	<mark>57</mark>	0.97	present	ND	ND	ND	ND
SB1-6'	ND	ND	ND						9.6							
SB1-10'	ND	ND	ND						8.7							
SB2-2'	3.2	51	<mark>560</mark>						<mark>950</mark>	<mark>19</mark>	ND	present	ND		ND	ND
SB2-6'	ND	ND	ND						9.7							ND
SB2-10'																
SB3-2'	ND	3.5	41	ND	ND	ND	ND	ND	220	<mark>5.8</mark>	0.36	present		ND	ND	ND
SB3-6'	ND	ND	ND	ND	ND	ND	ND	ND	12					ND		
SB3-10'																
SB4-3'	ND	ND	ND						17			Cr.09				
SB4-6'	ND	ND	ND						8.3							
SB4-10'	ND	ND	ND						6.4							
<mark>SB5-2'</mark>	ND	ND	ND						<mark>200</mark>	2.2	ND					ND
SB5-6'	ND	ND	ND						12							
SB5-10'																
SB6-3'	ND	ND	ND						9.5							
SB6-6'	ND	ND	ND						11			Cr 0.1				
SB6-10'	ND	ND	ND						7.1							
<mark>SB7-2'</mark>	ND	1.4	17						<mark>90</mark>	3.2			ND	ND	ND	ND
SB7-6'	ND	ND	ND						11							
SB7-10'																
SB8-2'	ND	2	70						120	<mark>6.8</mark>	ND	present				
SB8-6'	ND	ND	ND						15							
SB8-10'																
SB9-2'	ND	ND	15	ND	ND	ND	ND	ND	60				ND	ND		ND
SB9-6'	ND	ND	ND						9.3							ND
SB9-10'	Х	ND	ND						8.4							

Red: California Hazardous Waste Class I Soil

Yellow: Contaminated Soil Class II

ESLs: Environmental Screening Levels-Residential Scenario

Cr levels shown are Soluble (STLC) Chromium

TABLE 2

Organochlorine Pesticides (mg/kg)

94th and International Blvd, Oakland, CA

Sample ID	ESLs	SB1-2'	SB7-2'	SB9-2'	SB3-2'	SB3-6'	SB7-6'
Aldrin		ND	ND	ND	ND	ND	ND
α-BHC		ND	ND	ND	ND	ND	ND
β-ВНС		ND	ND	ND	ND	ND	ND
δ-ΒΗϹ		ND	ND	ND	ND	ND	ND
Chlordane	0.44	<mark>0.84</mark>	ND	ND	ND	ND	ND
α-Chlordane	NA	<mark>0.089</mark>	<mark>0.0023</mark>	ND	ND	ND	ND
γ-Chlordane	NA	<mark>0.096</mark>	<mark>0.0027</mark>	ND	ND	ND	ND
4,4'-DDD	2.4	<mark>0.018</mark>	<mark>0.0024</mark>	<mark>0.0029</mark>	ND	ND	ND
4,4'-DDE	1.7	ND	<mark>0.0048</mark>	<mark>0.0022</mark>	ND	ND	ND
4,4'-DDT	1.7	ND	<mark>0.021</mark>	ND	ND	ND	ND
Dieldrin	0.0023	ND	<mark>0.0043</mark>	ND	ND	ND	ND
Endosulfan I		ND	ND	ND	ND	ND	ND
Endosulfan II		ND	ND	ND	ND	ND	ND
Endosulfan sulfate		ND	ND	ND	ND	ND	ND
Endrin		ND	ND	ND	ND	ND	ND
Endrin Aldehyde		ND	ND	ND	ND	ND	ND
Endrin Ketone		ND	ND	ND	ND	ND	ND
Heptachlor		ND	ND	ND	ND	ND	ND
Heptachlor epoxide		ND	ND	ND	ND	ND	ND
Hexachlorobenzene		ND	ND	ND	ND	ND	ND
chlorocyclopentadiene		ND	ND	ND	ND	ND	ND
Methoxychlor		ND	ND	ND	ND	ND	ND
Toxaphene		ND	ND	ND	ND	ND	ND

ND: Not Detected Above Respective Detection Limit

ESLs: Environmental Screening Levels-Residential Scenario

Aqua: Level in Excess of ESL, needs to be removed and area cleared

Yellow: Contaminated Soil Class II, needs to be removed to a Class II Landfill

Table 3

Heavy Metal Levels (mg/kg)

94th and International Blvd, Oakland, CA

Heavy Metals	SB1-2'	SB2-2'	SB3-2'	SB4-3'	SB6-6'	SB8-2'	USGS ¹	ESL ²
Antimony	<mark>3.3</mark>	0.51	1.8	ND<0.5	ND<0.5	0.68	0.47	2
Arsenic	<mark>14</mark>	<mark>4.5</mark>	<mark>14</mark>	<mark>8</mark>	<mark>8.1</mark>	<mark>7.3</mark>	7	0.39
Barium	530	<mark>1,800</mark>	270	230	290	400	580	750
Beryllium	ND<0.5	0.71	0.51	0.7	0.71	0.58	0.68	4
Cadmium	1.9	0.57	1.4	ND<0.25	ND<0.25	0.54	1.5	12
Chromium	.53	61	44	56	64	56	41	1,000
Cobalt	10	<mark>32</mark>	9.9	7.2	12	<mark>29</mark>	7.1	23
Copper	83	42	68	36	41	35	21	230
Lead	<mark>940/57/</mark> 0.97	<mark>950/19/</mark> ND	<mark>230</mark> / <mark>5.8</mark> /.36	8.3	11	<mark>120</mark> / <mark>6.8</mark> /ND	8.7	80
Mercury	0.47	<mark>15</mark> /ND	0.29	0.055	0.055	0.13	0.46	6.7
Molybdenum	0.52	ND<0.5	0.69	ND<0.5	0.52	0.89	0.85	40
Nickel	45	49	42	43	55	75	15	150
Selenium	ND<0.5	ND<0.5	0.57	ND<0.5	ND<0.5	0.58	0.23	10
Silver	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2	20
Thallium	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	43	0.78
Vanadium	53	58	52	58	62	56	70	200
Zinc	<mark>930</mark>	<mark>730</mark>	470	62	75	150	23	600

1: USGS: United States Geological Society Professional Paper 1270-Element Concentrations in soils and other surficial materials of the conterminous united states (Background levels).

2: Regional Water Quality Control Board (RWQCB) Environmental Screening Levels-Sensitive Use (Worker Exposure) where water is a potential drinking Source Table A-Dec 2013. 3: Aqua Shade: Indicates level is in excess of RWQCB Worker Exposure/Residential ESL.

4: 940/57/0.97: Total Lead level (TTLC)/Soluble Lead Level (STLC)/Federal Soluble Lead Level (TCLP)

5: Red Shade: Indicates level in excess of hazardous waste thresholds.



Appendix 4 Laboratory Certificates of Analysis



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 C
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/14/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

а3	sample diluted due to high organic content.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8082
Date Prepared:	7/13/15	Unit:	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID Matrix	x Date Collected Instrument	Batch ID
SB2-2'	1507086-004A Soil	07/02/2015 10:20 GC5A	107558
<u>Analytes</u>	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Aroclor1016	ND	0.050 1	07/13/2015 23:04
Aroclor1221	ND	0.050 1	07/13/2015 23:04
Aroclor1232	ND	0.050 1	07/13/2015 23:04
Aroclor1242	ND	0.050 1	07/13/2015 23:04
Aroclor1248	ND	0.050 1	07/13/2015 23:04
Aroclor1254	ND	0.050 1	07/13/2015 23:04
Aroclor1260	ND	0.050 1	07/13/2015 23:04
PCBs, total	ND	0.050 1	07/13/2015 23:04
<u>Surrogates</u>	<u>REC (%)</u>	Limits	
Decachlorobiphenyl	75	70-130	07/13/2015 23:04
Analyst(s): SS		Analytical Comments: h4	



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	Batch ID	
SB7-2'	1507086-013A	Soil	07/02/2015 13:00 GC10		107551
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Acetone	ND		0.10	1	07/13/2015 19:51
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/13/2015 19:51
Benzene	ND		0.0050	1	07/13/2015 19:51
Bromobenzene	ND		0.0050	1	07/13/2015 19:51
Bromochloromethane	ND		0.0050	1	07/13/2015 19:51
Bromodichloromethane	ND		0.0050	1	07/13/2015 19:51
Bromoform	ND		0.0050	1	07/13/2015 19:51
Bromomethane	ND		0.0050	1	07/13/2015 19:51
2-Butanone (MEK)	ND		0.020	1	07/13/2015 19:51
t-Butyl alcohol (TBA)	ND		0.050	1	07/13/2015 19:51
n-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
sec-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
tert-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
Carbon Disulfide	ND		0.0050	1	07/13/2015 19:51
Carbon Tetrachloride	ND		0.0050	1	07/13/2015 19:51
Chlorobenzene	ND		0.0050	1	07/13/2015 19:51
Chloroethane	ND		0.0050	1	07/13/2015 19:51
Chloroform	ND		0.0050	1	07/13/2015 19:51
Chloromethane	ND		0.0050	1	07/13/2015 19:51
2-Chlorotoluene	ND		0.0050	1	07/13/2015 19:51
4-Chlorotoluene	ND		0.0050	1	07/13/2015 19:51
Dibromochloromethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/13/2015 19:51
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/13/2015 19:51
Dibromomethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,3-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,4-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
Dichlorodifluoromethane	ND		0.0050	1	07/13/2015 19:51
1,1-Dichloroethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/13/2015 19:51
1,1-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
cis-1,2-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
trans-1,2-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
1,2-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
1,3-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
2,2-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
1,1-Dichloropropene	ND		0.0050	1	07/13/2015 19:51

(Cont.)



Angela Rydelius, Lab Manager



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/201	I5 13:00 GC10	107551
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	07/13/2015 19:51
trans-1,3-Dichloropropene	ND		0.0050	1	07/13/2015 19:51
Diisopropyl ether (DIPE)	ND		0.0050	1	07/13/2015 19:51
Ethylbenzene	ND		0.0050	1	07/13/2015 19:51
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	07/13/2015 19:51
Freon 113	ND		0.0050	1	07/13/2015 19:51
Hexachlorobutadiene	ND		0.0050	1	07/13/2015 19:51
Hexachloroethane	ND		0.0050	1	07/13/2015 19:51
2-Hexanone	ND		0.0050	1	07/13/2015 19:51
Isopropylbenzene	ND		0.0050	1	07/13/2015 19:51
4-Isopropyl toluene	ND		0.0050	1	07/13/2015 19:51
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	07/13/2015 19:51
Methylene chloride	ND		0.0050	1	07/13/2015 19:51
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	07/13/2015 19:51
Naphthalene	ND		0.0050	1	07/13/2015 19:51
n-Propyl benzene	ND		0.0050	1	07/13/2015 19:51
Styrene	ND		0.0050	1	07/13/2015 19:51
1,1,1,2-Tetrachloroethane	ND		0.0050	1	07/13/2015 19:51
1,1,2,2-Tetrachloroethane	ND		0.0050	1	07/13/2015 19:51
Tetrachloroethene	ND		0.0050	1	07/13/2015 19:51
Toluene	ND		0.0050	1	07/13/2015 19:51
1,2,3-Trichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,2,4-Trichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,1,1-Trichloroethane	ND		0.0050	1	07/13/2015 19:51
1,1,2-Trichloroethane	ND		0.0050	1	07/13/2015 19:51
Trichloroethene	ND		0.0050	1	07/13/2015 19:51
Trichlorofluoromethane	ND		0.0050	1	07/13/2015 19:51
1,2,3-Trichloropropane	ND		0.0050	1	07/13/2015 19:51
1,2,4-Trimethylbenzene	ND		0.0050	1	07/13/2015 19:51
1,3,5-Trimethylbenzene	ND		0.0050	1	07/13/2015 19:51
Vinyl Chloride	ND		0.0050	1	07/13/2015 19:51
Xylenes, Total	ND		0.0050	1	07/13/2015 19:51



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/20	15 13:00 GC10	107551
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		07/13/2015 19:51
Toluene-d8	99		70-130		07/13/2015 19:51
4-BFB	125		70-130		07/13/2015 19:51
Benzene-d6	94		60-140		07/13/2015 19:51
Ethylbenzene-d10	105		60-140		07/13/2015 19:51
1,2-DCB-d4	89		60-140		07/13/2015 19:51
<u>Analyst(s):</u> KF					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C-SIM
Date Prepared:	7/13/15	Unit:	mg/kg

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/201	15 10:20 GC35	107567
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Acenaphthene	ND		0.050	5	07/13/2015 16:44
Acenaphthylene	ND		0.050	5	07/13/2015 16:44
Anthracene	ND		0.050	5	07/13/2015 16:44
Benzo (a) anthracene	ND		0.050	5	07/13/2015 16:44
Benzo (b) fluoranthene	ND		0.050	5	07/13/2015 16:44
Benzo (k) fluoranthene	ND		0.050	5	07/13/2015 16:44
Benzo (g,h,i) perylene	ND		0.050	5	07/13/2015 16:44
Benzo (a) pyrene	ND		0.050	5	07/13/2015 16:44
Chrysene	ND		0.050	5	07/13/2015 16:44
Dibenzo (a,h) anthracene	ND		0.050	5	07/13/2015 16:44
Fluoranthene	ND		0.050	5	07/13/2015 16:44
Fluorene	ND		0.050	5	07/13/2015 16:44
Indeno (1,2,3-cd) pyrene	ND		0.050	5	07/13/2015 16:44
1-Methylnaphthalene	ND		0.050	5	07/13/2015 16:44
2-Methylnaphthalene	ND		0.050	5	07/13/2015 16:44
Naphthalene	ND		0.050	5	07/13/2015 16:44
Phenanthrene	ND		0.050	5	07/13/2015 16:44
Pyrene	ND		0.050	5	07/13/2015 16:44
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
1-Fluoronaphthalene	64		30-130		07/13/2015 16:44
2-Fluorobiphenyl	67		30-130		07/13/2015 16:44
<u>Analyst(s):</u> HK			Analytical Comm	nents: a3	



Client:	Applied Remedial Services, Inc.	Wo
Project:	94th & International	Ext
Date Received:	7/2/15 17:52	Ana

Date Prepared: 7/2/15

WorkOrder:	1507086
Extraction Method:	SW3050B
Analytical Method:	SW6020
Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/201	15 10:20 ICP-MS1	107559
Analytes	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Antimony	0.51		0.50	1	07/13/2015 20:27
Arsenic	4.5		0.50	1	07/13/2015 20:27
Barium	1800		5.0	1	07/13/2015 20:27
Beryllium	0.71		0.50	1	07/13/2015 20:27
Cadmium	0.57		0.25	1	07/13/2015 20:27
Chromium	61		0.50	1	07/13/2015 20:27
Cobalt	9.5		0.50	1	07/13/2015 20:27
Copper	32		0.50	1	07/13/2015 20:27
Lead	1000		5.0	10	07/14/2015 14:13
Mercury	15		0.50	10	07/14/2015 14:13
Molybdenum	ND		0.50	1	07/13/2015 20:27
Nickel	49		0.50	1	07/13/2015 20:27
Selenium	ND		0.50	1	07/13/2015 20:27
Silver	ND		0.50	1	07/13/2015 20:27
Thallium	ND		0.50	1	07/13/2015 20:27
Vanadium	58		0.50	1	07/13/2015 20:27
Zinc	730		5.0	1	07/13/2015 20:27
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	104		70-130		07/13/2015 20:27
Analyst(s): AC, DVH					



Client:	Applied Remedial Services, Inc.	Work
Project:	94th & International	Extrac
Date Received:	7/2/15 17:52	Analy
Date Prepared:	7/2/15	Unit:

WorkOrder:	1507086
Extraction Method:	SW3050B
Analytical Method:	SW6020
Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/20 ⁻	15 11:10 ICP-MS1	107559
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Antimony	1.8		0.50	1	07/13/2015 20:34
Arsenic	14		0.50	1	07/13/2015 20:34
Barium	270		5.0	1	07/14/2015 14:01
Beryllium	0.51		0.50	1	07/13/2015 20:34
Cadmium	1.4		0.25	1	07/13/2015 20:34
Chromium	44		0.50	1	07/13/2015 20:34
Cobalt	9.9		0.50	1	07/13/2015 20:34
Copper	68		0.50	1	07/13/2015 20:34
Lead	230		0.50	1	07/14/2015 14:01
Mercury	0.29		0.050	1	07/14/2015 14:01
Molybdenum	0.69		0.50	1	07/13/2015 20:34
Nickel	42		0.50	1	07/13/2015 20:34
Selenium	0.57		0.50	1	07/13/2015 20:34
Silver	ND		0.50	1	07/13/2015 20:34
Thallium	ND		0.50	1	07/13/2015 20:34
Vanadium	52		0.50	1	07/13/2015 20:34
Zinc	470		5.0	1	07/13/2015 20:34
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Terbium	101		70-130		07/13/2015 20:34
Analyst(s): AC, DVH					



1507086 SW3050B SW6020 mg/Kg

Analytical Report

Client:	Applied Remedial Services, Inc.	WorkOrder:
Project:	94th & International	Extraction Method :
Date Received:	7/2/15 17:52	Analytical Method:
Date Prepared:	7/2/15	Unit:

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected In	strument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/201	15 10:45 IC	P-MS1	107559
Analytes	<u>Result</u>		<u>RL</u>	DF		Date Analyzed
Antimony	0.68		0.50	1		07/13/2015 20:40
Arsenic	7.3		0.50	1		07/13/2015 20:40
Barium	400		5.0	1		07/13/2015 20:40
Beryllium	0.58		0.50	1		07/13/2015 20:40
Cadmium	0.54		0.25	1		07/13/2015 20:40
Chromium	56		0.50	1		07/13/2015 20:40
Cobalt	29		0.50	1		07/13/2015 20:40
Copper	35		0.50	1		07/13/2015 20:40
Lead	120		0.50	1		07/13/2015 20:40
Mercury	0.13		0.050	1		07/14/2015 14:07
Molybdenum	0.89		0.50	1		07/13/2015 20:40
Nickel	75		0.50	1		07/13/2015 20:40
Selenium	0.58		0.50	1		07/13/2015 20:40
Silver	ND		0.50	1		07/13/2015 20:40
Thallium	ND		0.50	1		07/13/2015 20:40
Vanadium	56		0.50	1		07/13/2015 20:40
Zinc	150		5.0	1		07/13/2015 20:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Terbium	107		70-130			07/13/2015 20:40
Analyst(s): AC, DVH						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/13/15	BatchID:	107558
Date Analyzed:	7/13/15	Extraction Method:	SW3550B
Instrument:	GC5A	Analytical Method:	SW8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107558 1507086-004AMS/MSD

QC Summary Report for SW8082									
Analyte	MB Result	LCS Result		RL	SPK Val	ME %F	B SS REC	LCS %REC	LCS Limits
Aroclor1016	ND	-		0.050	-	-		-	-
Aroclor1221	ND	-		0.050	-	-		-	-
Aroclor1232	ND	-		0.050	-	-		-	-
Aroclor1242	ND	-		0.050	-	-		-	-
Aroclor1248	ND	-		0.050	-	-		-	-
Aroclor1254	ND	-		0.050	-	-		-	-
Aroclor1260	ND	0.130		0.050	0.15	-		87	70-130
PCBs, total	ND	-		0.050	-	-		-	-
Surrogate Recovery									
Decachlorobiphenyl	0.0390	0.0403			0.050	78		81	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/M Limits	SD RP	D RPD Limit
Aroclor1260	0.148	0.154	0.15	ND	99	103	70-13	0 4.2	8 30
Surrogate Recovery									
Decachlorobiphenyl	0.0386	0.0393	0.050		77	79	70-13	0 1.9	8 30

QA/QC Officer Page 11 of 20



Quality Control Report

Client:	Applied Remedial Services, Inc.
Date Prepared:	7/13/15
Date Analyzed:	7/13/15
Instrument:	GC16
Matrix:	Soil
Project:	94th & International

WorkOrder:	1507086
BatchID:	107551
Extraction Method:	SW5030B
Analytical Method:	SW8260B
Unit:	mg/Kg
Sample ID:	MB/LCS-10755

QC Summary Report for SW8260B MB LCS RL SPK MB SS LCS LCS Analyte Result Result Val %REC %REC Limits ND 0.10 Acetone tert-Amyl methyl ether (TAME) ND 0.0405 0.0050 0.050 81 53-116 _ ND 0.0491 0.050 98 Benzene 0.0050 _ 63-137 Bromobenzene ND 0.0050 _ ND Bromochloromethane _ 0.0050 _ Bromodichloromethane ND 0.0050 _ -_ _ _ Bromoform ND -0.0050 --_ _ Bromomethane ND 0.0050 _ _ _ _ _ 2-Butanone (MEK) ND 0.020 _ _ t-Butyl alcohol (TBA) ND 0.157 0.050 0.20 78 -41-135 n-Butyl benzene ND _ 0.0050 _ _ _ ND 0.0050 sec-Butyl benzene _ _ _ _ _ ND 0.0050 tert-Butyl benzene _ _ _ _ _ ND Carbon Disulfide _ 0.0050 _ _ _ _ Carbon Tetrachloride ND 0.0050 _ _ _ _ Chlorobenzene ND 0.0462 0.0050 0.050 92 77-121 _ Chloroethane ND 0.0050 --_ _ -Chloroform ND 0.0050 ---_ Chloromethane ND 0.0050 _ _ _ _ _ 2-Chlorotoluene ND 0.0050 ND 4-Chlorotoluene 0.0050 _ _ _ _ _ ND Dibromochloromethane 0.0050 _ _ _ _ ND 1,2-Dibromo-3-chloropropane 0.0040 1,2-Dibromoethane (EDB) ND 0.0437 0.0040 0.050 87 67-119 _ Dibromomethane ND -0.0050 -_ _ _ 1,2-Dichlorobenzene ND 0.0050 _ _ _ _ _ 1,3-Dichlorobenzene ND 0.0050 _ _ _ ND 1,4-Dichlorobenzene 0.0050 --_ --Dichlorodifluoromethane ND 0.0050 _ _ _ _ _ ND 1,1-Dichloroethane 0.0050 --_ _ _ 1,2-Dichloroethane (1,2-DCA) ND 0.0484 0.0040 0.050 97 58-135 _ 1,1-Dichloroethene ND 0.0486 0.0050 0.050 97 42-145 _ ND 0.0050 cis-1,2-Dichloroethene _ _ trans-1,2-Dichloroethene ND 0.0050 _ 1,2-Dichloropropane ND 0.0050 _ -_

ND 1,3-Dichloropropane _ 0.0050 -_ _ _ 2,2-Dichloropropane ND 0.0050 _ _ _ _ _ 1,1-Dichloropropene ND 0.0050 _ _ _ _ ND 0.0050 cis-1,3-Dichloropropene --_ _ trans-1,3-Dichloropropene ND _ 0.0050 _ _

(Cont.)

QA/QC Officer Page 12 of 20



Quality Control Report

Client:	Applied Remedial Services, Inc.
Date Prepared:	7/13/15
Date Analyzed:	7/13/15
Instrument:	GC16
Matrix:	Soil
Project:	94th & International

WorkOrder:	1507086
BatchID:	107551
Extraction Method:	SW5030B
Analytical Method:	SW8260B
Unit:	mg/Kg
Sample ID:	MB/LCS-107551

QC Summary Report for SW8260B MB LCS RL SPK MB SS LCS LCS Analyte Result Result Val %REC %REC Limits Diisopropyl ether (DIPE) ND 0.0464 0.0050 0.050 93 52-129 _ Ethylbenzene ND 0.0050 Ethyl tert-butyl ether (ETBE) ND 0.0439 0.050 88 53-125 0.0050 _ Freon 113 ND 0.0050 _ ND Hexachlorobutadiene _ 0.0050 _ Hexachloroethane ND 0.0050 _ -_ _ _ 2-Hexanone ND -0.0050 --_ _ Isopropylbenzene ND 0.0050 _ _ _ _ _ 4-Isopropyl toluene ND 0.0050 _ _ _ Methyl-t-butyl ether (MTBE) ND 0.0427 0.0050 0.050 85 -58-122 Methylene chloride ND _ 0.0050 _ _ _ _ ND 0.0050 4-Methyl-2-pentanone (MIBK) _ _ _ _ _ ND 0.0050 Naphthalene _ _ _ _ _ n-Propyl benzene ND 0.0050 _ _ _ _ _ Styrene ND _ 0.0050 _ _ _ _ 1,1,1,2-Tetrachloroethane ND 0.0050 _ _ _ _ _ 1,1,2,2-Tetrachloroethane ND 0.0050 --_ _ _ Tetrachloroethene ND 0.0050 _ -Toluene ND 0.0511 0.0050 0.050 102 76-130 _ 1,2,3-Trichlorobenzene ND 0.0050 ND 1,2,4-Trichlorobenzene 0.0050 _ _ _ _ _ ND 1,1,1-Trichloroethane 0.0050 _ _ _ _ _ 1,1,2-Trichloroethane ND 0.0050 _ _ Trichloroethene ND 0.0464 0.0050 0.050 93 72-132 _ Trichlorofluoromethane ND -0.0050 -_ _ _ 1,2,3-Trichloropropane ND 0.0050 _ _ _ _ 1,2,4-Trimethylbenzene ND 0.0050 _ _ ND 0.0050 1,3,5-Trimethylbenzene _ -_ _ -Vinyl Chloride ND 0.0050 _ -_ _ ND Xylenes, Total 0.0050 _ -_ _ _ Surrogate Recovery Dibromofluoromethane 0.124 0.128 0.12 99 102 70-130 Toluene-d8 0.133 0.132 0.12 107 106 70-130 4-BFB 0.0126 0.0127 0.012 100 101 70-130 0.10 Benzene-d6 0.0967 0.0964 97 96 60-140 Ethylbenzene-d10 0.100 0.104 0.10 100 104 60-140 1,2-DCB-d4 0.0764 0.0804 0.10 76 80 60-140

QA/QC Officer Page 13 of 20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/13/15	BatchID:	107567
Date Analyzed:	7/13/15	Extraction Method:	SW3550B
Instrument:	GC35	Analytical Method:	SW8270C-SIM
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107567 1507086-004AMS/MSD

	QC Sumr	nary Report f	or SW8270C				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	-	0.010	-	-	-	-
Acenaphthylene	ND	-	0.010	-	-	-	-
Anthracene	ND	-	0.010	-	-	-	-
Benzo (a) anthracene	ND	-	0.010	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.010	-	-	-	-
Benzo (a) pyrene	ND	0.169	0.010	0.20	-	84	30-130
Chrysene	ND	0.135	0.010	0.20	-	68	30-130
Dibenzo (a,h) anthracene	ND	-	0.010	-	-	-	-
Fluoranthene	ND	-	0.010	-	-	-	-
Fluorene	ND	-	0.010	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.010	-	-	-	-
1-Methylnaphthalene	ND	0.169	0.010	0.20	-	84	30-130
2-Methylnaphthalene	ND	0.169	0.010	0.20	-	85	30-130
Naphthalene	ND	-	0.010	-	-	-	-
Phenanthrene	ND	0.150	0.010	0.20	-	75	30-130
Pyrene	ND	0.134	0.010	0.20	-	67	30-130
Surrogate Recovery							
1-Fluoronaphthalene	0.210	0.310		0.50	42	62	30-130
2-Fluorobiphenyl	0.213	0.278		0.50	43	56	30-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzo (a) pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Chrysene	NR	NR		ND<0.05	NR	NR	-	NR	
1-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
2-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
Phenanthrene	NR	NR		ND<0.05	NR	NR	-	NR	
Pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Surrogate Recovery									
1-Fluoronaphthalene	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	

_____QA/QC Officer Page 14 of 20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107559
Date Analyzed:	7/13/15	Extraction Method:	SW3050B
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107559 1507086-021AMS/MSD

MB Result ND	LCS Result	RL	SPK Val	MB SS	LCS	
ND				%REC	%REC	Limits
	51.4	0.50	50	-	103	75-125
ND	53.0	0.50	50	-	106	75-125
ND	466	5.0	500	-	93	75-125
ND	50.6	0.50	50	-	101	75-125
ND	51.5	0.25	50	-	103	75-125
ND	52.4	0.50	50	-	105	75-125
ND	51.7	0.50	50	-	103	75-125
ND	50.7	0.50	50	-	101	75-125
ND	52.5	0.50	50	-	105	75-125
ND	1.14	0.050	1.25	-	89	75-125
ND	49.3	0.50	50	-	99	75-125
ND	51.4	0.50	50	-	103	75-125
ND	54.0	0.50	50	-	108	75-125
ND	51.4	0.50	50	-	103	75-125
ND	50.8	0.50	50	-	102	75-125
ND	51.9	0.50	50	-	104	75-125
ND	530	5.0	500	-	106	75-125
467	486		500	93	97	70-130
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND 53.0 ND 466 ND 50.6 ND 51.5 ND 52.4 ND 51.7 ND 50.7 ND 52.5 ND 1.14 ND 51.4 ND 51.4 ND 51.4 ND 51.4 ND 51.9 ND 51.9 ND 530 467 486	ND 53.0 0.50 ND 466 5.0 ND 50.6 0.50 ND 51.5 0.25 ND 52.4 0.50 ND 51.7 0.50 ND 50.7 0.50 ND 52.5 0.50 ND 52.5 0.50 ND 1.14 0.050 ND 49.3 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.9 0.50 ND 51.9 0.50 ND 51.9 0.50 ND 530 5.0 467 486 486	ND 53.0 0.50 50 ND 466 5.0 500 ND 50.6 0.50 50 ND 51.5 0.25 50 ND 52.4 0.50 50 ND 51.7 0.50 50 ND 50.7 0.50 50 ND 52.5 0.50 50 ND 52.5 0.50 50 ND 52.5 0.50 50 ND 1.14 0.050 1.25 ND 49.3 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.9 0.50 50 ND 51.9 0.50 50 ND 51.9 5.0 500 ND 530 5.0 50	ND 53.0 0.50 50 - ND 466 5.0 500 - ND 50.6 0.50 50 - ND 51.5 0.25 50 - ND 51.7 0.50 50 - ND 50.7 0.50 50 - ND 50.7 0.50 50 - ND 52.5 0.50 50 - ND 52.5 0.50 50 - ND 49.3 0.50 50 - ND 51.4 0.50 50 - ND 51.9 0.50 50 - ND 51.9 0.50 50 - ND 51.9 5.0 500	ND 53.0 0.50 50 - 106 ND 466 5.0 500 - 93 ND 50.6 0.50 50 - 101 ND 51.5 0.25 50 - 103 ND 52.4 0.50 50 - 103 ND 51.7 0.50 50 - 103 ND 50.7 0.50 50 - 101 ND 52.5 0.50 50 - 101 ND 52.5 0.50 50 - 105 ND 1.14 0.050 1.25 - 89 ND 49.3 0.50 50 - 103 ND 51.4 0.50 50 - 108 ND 51.4 0.50 50 - 102 ND 51.9 0.50 50 - 104 ND 5



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107559
Date Analyzed:	7/13/15	Extraction Method:	SW3050B
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107559 1507086-021AMS/MSD

	QC Su	nmary R	eport f	or Metals					
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	48.5	51.4	50	ND	96	102	75-125	5.73	20
Arsenic	59.0	66.0	50	9.562	99	113	75-125	11.1	20
Barium	739	829	500	260.8	96	114	75-125	11.5	20
Beryllium	46.4	51.0	50	0.6513	92	101	75-125	9.36	20
Cadmium	55.5	59.9	50	0.4457	110	119	75-125	7.59	20
Chromium	NR	NR	50	63.90	NR	NR	75-125	NR	20
Cobalt	57.7	67.3	50	16.48	82	102	75-125	15.4	20
Copper	70.4	78.7	50	24.41	92	109	75-125	11.1	20
Lead	60.5	65.1	50	8.840	103	113	75-125	7.32	20
Mercury	1.24	1.37	1.25	0.09140	92	102	75-125	9.98	20
Molybdenum	53.4	57.4	50	0.6746	105	114	75-125	7.27	20
Nickel	NR	NR	50	93.99	NR	NR	75-125	NR	20
Selenium	54.0	54.6	50	ND	107	109	75-125	1.12	20
Silver	54.8	58.5	50	ND	109	117	75-125	6.44	20
Thallium	51.5	55.5	50	ND	103	110	75-125	7.40	20
Vanadium	NR	NR	50	58.16	NR	NR	75-125	NR	20
Zinc	572	615	500	59.14	102	111	75-125	7.33	20
Surrogate Recovery									
Terbium	529	558	500		106	112	70-130	5.24	20

_QA/QC Officer Page 16 of 20

1534 Willow Pass Rd Pittsburg CA 94565-1701				СП/	4111	-UF-(202	\sim	UYI	ΚE	CUR	D	-	. uge		
(925) 252-9262				Wo	rkOrd	er: 1507()86 (Ĵ	Clie	ntCo	de: ARS	SВ				
	WaterTrax	WriteC	n 🗌 EDF	E	xcel	□Fax		VE	mail		HardCop	у	ThirdPa	arty	_ J-flag	J
Report to:					Bill	to:					F	٦equ	ested TAT:	:	5 d	ays
Michael F. Kara	Email: mn	nkara707@a	aol.com			Accounts	Payable	e I Son	viceo In	~	1	Date	Received	! :	07/02/2	015
P.O. Box 5086	PO:					P.O. Box 8	5086	i Ser	nces, m	С.	1	Date	Add-On:		07/13/2	015
Walnut Creek, CA 94596-1086 707-748-4205 FAX: 707-748-420	ProjectNo: 94t	th & Internat	ional		,	Walnut Cr	eek, C/	A 945	96-1086	5	1	Date	Printed:		07/13/2	015
								Req	uested T	ests	(See leger	nd be	elow)			
Lab ID Client	: ID	Matrix	Collection Date	e Hold	1	2	3	4	5	6	7	8	9	10	11	12

1507086-001	SB1-2'	Soil	7/2/2015 9:45			А				
1507086-004	SB2-2'	Soil	7/2/2015 10:20	Α		Α	А			
1507086-007	SB3-2'	Soil	7/2/2015 11:10				А			
1507086-013	SB7-2'	Soil	7/2/2015 13:00		А					
1507086-016	SB8-2'	Soil	7/2/2015 10:45				А			

Test Legend:

1	8082_PCB_S	2	8260B_S	3	8270_PNA_S	4	CAM17MS_S	5	
6		7		8		9		10	
11		12							

Prepared by: Erika Santos

Add-On Prepared By: Jena Alfaro

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15. Additional Analysis per email added 7/13/15 1 and 2D TATs

WORK ORDER SUMMARY

Client Name:	APPLIED REMEDIAI	L SERVICES, INC	2.	QC Level: LEVEL 2			Wo	rk Order:	1507086
Project:	94th & International		С	lient Contact: Michael F	. Kara		Date	Received:	7/2/2015
Comments:	Pb STLC: 1507086-001A 7/6/15 5D TAT. 001 Not	a, -004A, -007A, -02 enough sample rem	10A, -013A, -016A. Co aining for anything!	ntact's Email: mmkara70	07@aol.com		Date	e Add-On:	7/13/2015
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1507086-001A	SB1-2'	Soil	SW8270C (PAHs/PNAs)	1	Acetate Liner	7/2/2015 9:45	2 days		
1507086-004A	SB2-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 10:20	1 day		
			SW8270C (PAHs/PNAs)				2 days		
			SW8082 (PCBs Only)				2 days		
1507086-007A	SB3-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 11:10	1 day		
1507086-013A	SB7-2'	Soil	SW8260B (VOCs)	1	Acetate Liner	7/2/2015 13:00	1 day		
1507086-016A	SB8-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 10:45	1 day		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

A REAL N	IcCAMP	BELI 1534 W	L ANA	LY' SS RC 4565-1	FIC DAD 701	AL	., Il	NC	•	,				ΓUR	N A	ARC	C	HAND		N C ME	DF	C		ST	01	DY D	R	EC	:OI	SD D	
W Te	ebsite: <u>www.m</u> lephone: (877	() 252-92	ell.com Er 262	nail: 1	nain@ Fax)mcc : (92	camp 25) 2	bell. 52-9	com 9269)				Geo	ſra	cke	r E	DF			PD]	F		SH Ex	24 cel		l V	48 F Vri	IR te O	72 H	IR 5 DAY W)
Report To: 🔥	chael Karo		I	Bill T	0:	AR	5, 1	Inc					+					Aı	alv	sis I	Rea	ues	n sa	mp	le is	en	luen	t an		ther	Commen
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McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701 Website: <u>www.mccampbell.com</u> Email: main@mccampbell.com Telephone: (877) 252-9262 Fax: (925) 252-9269										CHAIN OF CUSTODY RECORD TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY GeoTracker EDF PDF Excel Write On (DW) Check if sample is effluent and "J" flag is required																								
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1506A62 B
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	#15-34-001; 94th + International
Project Received:	06/24/2015

Analytical Report reviewed & approved for release on 07/06/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3


Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
Project:	#15-34-001; 94th + International
WorkOrder:	1506A62

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

 S
 spike recovery outside accepted recovery limits

 c11
 The surrogate recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data has been reported.



Client:Applied Remedial Services, Inc.Project:#15-34-001; 94th + International

Date Received: 6/24/15 20:51

Date Prepared: 7/4/15

WorkOrder:1506A62Extraction Method:CA Title 22Analytical Method:SW6010BUnit:mg/L

STLC Metals

Client ID	Lab ID	Matrix/ExtType	Date Co	ollected Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/20	15 13:35 ICP-JY	107167
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Chromium	0.090		0.050	1	07/06/2015 11:10

Analyst(s): BBO

Client ID	Lab ID	Matrix/ExtType	Date Co	ollected Instrument	Batch ID
SB-6-6.0	1506A62-005A	Soil	06/24/20	15 15:15 ICP-JY	107167
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Chromium	0.10		0.050	1	07/06/2015 11:13

Analyst(s): BBO

Angela Rydelius, Lab Manager



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	7/4/15	BatchID:	107167
Date Analyzed:	7/6/15	Extraction Method:	CA Title 22
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-107167 1507067-006AMS/MSD

	QC Summ	ary Repo	rt for M	letals (ST	LC)				
Analyte	MB Result	LCS Result		RL	SPK Val	M	BSSL REC %	-CS %REC	LCS Limits
Chromium	ND	1.03		0.050	1	-	1	02	75-125
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MS Limits	D RPI	D RPD Limit
Chromium	1.07	1.10	1	0.076	99	102	70-130	2.22	2 30

QA/QC Officer Page 4 of 7

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Michael F. Kara Applied Remedia P.O. Box 5086	ol.com		Acco Appli P.O.	unts Paya ed Remeo Box 5086	ible dial Services, I	nc.	Dat Dat	06/2 07/1	06/24/2015 07/01/2015					
Walnut Creek, C 707-748-4205	CA 94596-1086 FAX: 707-748-4207	ProjectNo: #15	-34-001; 94t	h + International		Walr	ut Creek,	CA 94596-108	36	Dat	te Printed:	07/(06/201	5
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6/24/2015 15:15

А

Test Legend:

1506A62-005

				Add-On Prepared By: Jena Alfaro
				Prepared by: Agustina Venegas
11	12			
6	7	8	9	10
1 STLC_METALS_S	2	3	4	5

Comments: CAM17 added to 001 and 005 added 6/30/15 2D TAT. STLC Cr added to 001 and 005 7/1/15 2D TAT

Soil

SB-6-6.0

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

	<u>McCar</u>	mpbell Analy "When Quality Counts	<u>tical, Inc.</u>		1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com									
			WC	ORK ORDE	R SUMM	ARY								
Client Name:	APPLIED REMEDI	AL SERVICES, INC		QC Leve	el: LEVEL 2			Wo	rk Order:	1506A62				
Project:	#15-34-001; 94th + I	nternational		Client Contac	et: Michael F.	Kara		Date	Received:	6/24/2015				
Comments:	CAM17 added to 001 a added to 001 and 005 7	and 005 added 6/30/15 7/1/15 2D TAT	2D TAT. STLC Cr	Contact's Ema	il: mmkara70	7@aol.com		Date	Add-On:	7/1/2015				
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	ТАТ	Sediment Content	Hold SubOut				
1506A62-001A	SB-4-3.0	Soil	SW6010B (Metals) (S	TLC) <chromium></chromium>	1	Stainless Tube	6/24/2015 13:35	2 days*						
1506A62-005A	SB-6-6.0	Soil	SW6010B (Metals) (S	TLC) <chromium></chromium>	1	Stainless Tube	6/24/2015 15:15	2 days*						

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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Page	7	of	7
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 D
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/15/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

- Client: Applied Remedial Services, Inc.
- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3 sample diluted due to high organic content.
a7 reporting limit raised due to limited sample amount
d7 strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2 diesel range compounds are significant; no recognizable pattern
e7 oil range compounds are significant
h4 sulfuric acid permanganate (EPA 3665) cleanup

Glossary of Terms & Qualifier Definitions

Client: Applied Remedial Services, Inc.

Project: 94th & International

WorkOrder: 1507086

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.
Project:	94th & International

Date Received: 7/2/15 17:52

Date Prepared: 7/15/15

 WorkOrder:
 1507086

 Extraction Method:
 SW1311/SW3010

 Analytical Method:
 SW6020

 Unit:
 mg/L

TCLP Metals

Client ID	Lab ID	Matrix	Date Collected Ins	strument Batch ID
SB2-2'	1507086-004A	Soil	07/02/2015 10:20 ICF	P-MS1 107642
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Mercury	ND		0.010 1	07/15/2015 13:14

Analyst(s): AC



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/14/15	BatchID:	107642
Date Analyzed:	7/15/15	Extraction Method:	SW1311/SW3010
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107642 1507086-004AMS/MSD

	QC Su	nmary	Repor	t for M	etals (TCI	LP)				
Analyte	MB Res	sult	LCS Result		RL	SPK Val	ME %F	BISS I REC ^o	LCS %REC	LCS Limits
Mercury	ND		0.240		0.010	0.25	-	ę	96	75-125
Analyte	MS Res	sult	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MS Limits	D RP	D RPD Limit
Mercury	0.22	27	0.241	0.25	ND	91	96	75-125	5.9	9 20

_QA/QC Officer Page 5 of 8

McCampbell Analy	rtical, In	IC.			СН	AIN-	OF-	-CU	STC)DY I	REC	CORD		Page	1 of 2	1
Pittsburg, CA 94565-1701 (925) 252-9262					W	orkOrde	er: 150)7086	D	Clie	ntCod	e: ARSB				
		WaterTrax	WriteOn	EDF		Excel	F	ax	v E	Email		HardCopy		Party	_ J-fla	g
Report to:						Bill	:0:					Req	uested TA	т:	5 (days
Michael F. Kara Applied Remedial Services, In P.O. Box 5086	c. (Email: mmł cc/3rd Party: PO:	kara707@ao	l.com		A A F	ccount pplied 2.0. Bo	ts Paya Reme x 5086	able dial Ser	vices, In	C.	Dat Dat	te Receive te Add-Or	ed: 1:	07/02/2 07/14/2	2015 2015
Walnut Creek, CA 94596-108 707-748-4205 FAX: 707-74	6 I 8-4207	ProjectNo: 94th	& Internatio	nal		V	Valnut	Creek,	CA 945	596-1086	3	Dat	te Printed	!:	07/15/2	2015
									Rea	uested T	ests (S	ee legend l	pelow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7 8	9	10	11	12

А

7/2/2015 10:20

Test Legend:

1507086-004

SB2-2'

Soil

1 METALSMS_TCLP_S	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Erika Santos

Add-On Prepared By: Maria Venegas

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15. Additional Analysis per email added 7/13/15 1 and 2D TATs

	<u>McCampt</u>	Dell Analy tren Quality Count	<u>/tical, Inc.</u>		1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com											
			WC	ORK ORDEI	R SUMM	ARY										
Client Name:	APPLIED REMEDIAL SI	ERVICES, INC	2.	QC Leve	EVEL 2			Wor	·k Order:	1507086						
Project:	94th & International			Client Contac	t: Michael F	. Kara		Date 1	Received:	7/2/2015						
Comments:	Pb STLC: 1507086-001A, -0 7/6/15 5D TAT. 001 Not eno	04A, -007A, -01 ugh sample rema	0A, -013A, -016A. aining for anything!	Contact's Emai	l: mmkara70	07@aol.com		Date	Add-On:	7/14/2015						
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	ТАТ	Sediment Content	Hold SubOut						
1507086-004A	SB2-2'	Soil	SW6020 (Metals) (TC	CLP) <mercury></mercury>	1	Acetate Liner	7/2/2015 10:20	Same Day*								

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

	ebsite: <u>www.m</u> lephone: (877	BELL 1534 WI PITTSBU ccampbel 7) 252-92	ANA LLOW PA RG, CA 94 <u>II.com</u> En 62	LYI SS RO 4565-17 nail: m	AD 701 nain@ Fax	AL)mcc : (92	, II amp 25) 2	bell.	com 9269					TU Ge	NRN 0Tr	AR ack	C ROU er H	CH JNI EDI		N (IMI)	OF E PD	F	US RUS	H Ex	24 cel	PY] HR □	RI	EC □ 48 F Wri	CO I IR IR Ite (RD 72 On (2 HR	V)
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SAMPLE ID-	Field Point Name	Date	Time	# Contain	Type Conta	Water	Soil	Air	Other	ICE	HCL	HNO ₃	Other RTEV & TPH		Total Petroleur	Total Petroleui	EPA 8260 (H	MTBE / BTEX	EPA 505/ 608 /	EPA 608 / 8082	EPA 507 / 814	EPA 515.3 / 81	EPA 524.2 / 62	EPA 525.2 / 62	EPA 8270 SIN	CAM 17 Metal	LUFT 5 Metals	Lead (200.7/2	AS bes	TLC P	TCUP :	
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 C
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/14/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

а3	sample diluted due to high organic content.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

Quality Control Qualifiers

MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8082
Date Prepared:	7/13/15	Unit:	mg/kg

Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID Matrix	x Date Collected Instrument	Batch ID
SB2-2'	1507086-004A Soil	07/02/2015 10:20 GC5A	107558
<u>Analytes</u>	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Aroclor1016	ND	0.050 1	07/13/2015 23:04
Aroclor1221	ND	0.050 1	07/13/2015 23:04
Aroclor1232	ND	0.050 1	07/13/2015 23:04
Aroclor1242	ND	0.050 1	07/13/2015 23:04
Aroclor1248	ND	0.050 1	07/13/2015 23:04
Aroclor1254	ND	0.050 1	07/13/2015 23:04
Aroclor1260	ND	0.050 1	07/13/2015 23:04
PCBs, total	ND	0.050 1	07/13/2015 23:04
<u>Surrogates</u>	<u>REC (%)</u>	Limits	
Decachlorobiphenyl	75	70-130	07/13/2015 23:04
Analyst(s): SS		Analytical Comments: h4	



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/202	15 13:00 GC10	107551
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Acetone	ND		0.10	1	07/13/2015 19:51
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/13/2015 19:51
Benzene	ND		0.0050	1	07/13/2015 19:51
Bromobenzene	ND		0.0050	1	07/13/2015 19:51
Bromochloromethane	ND		0.0050	1	07/13/2015 19:51
Bromodichloromethane	ND		0.0050	1	07/13/2015 19:51
Bromoform	ND		0.0050	1	07/13/2015 19:51
Bromomethane	ND		0.0050	1	07/13/2015 19:51
2-Butanone (MEK)	ND		0.020	1	07/13/2015 19:51
t-Butyl alcohol (TBA)	ND		0.050	1	07/13/2015 19:51
n-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
sec-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
tert-Butyl benzene	ND		0.0050	1	07/13/2015 19:51
Carbon Disulfide	ND		0.0050	1	07/13/2015 19:51
Carbon Tetrachloride	ND		0.0050	1	07/13/2015 19:51
Chlorobenzene	ND		0.0050	1	07/13/2015 19:51
Chloroethane	ND		0.0050	1	07/13/2015 19:51
Chloroform	ND		0.0050	1	07/13/2015 19:51
Chloromethane	ND		0.0050	1	07/13/2015 19:51
2-Chlorotoluene	ND		0.0050	1	07/13/2015 19:51
4-Chlorotoluene	ND		0.0050	1	07/13/2015 19:51
Dibromochloromethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/13/2015 19:51
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/13/2015 19:51
Dibromomethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,3-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,4-Dichlorobenzene	ND		0.0050	1	07/13/2015 19:51
Dichlorodifluoromethane	ND		0.0050	1	07/13/2015 19:51
1,1-Dichloroethane	ND		0.0050	1	07/13/2015 19:51
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/13/2015 19:51
1,1-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
cis-1,2-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
trans-1,2-Dichloroethene	ND		0.0050	1	07/13/2015 19:51
1,2-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
1,3-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
2,2-Dichloropropane	ND		0.0050	1	07/13/2015 19:51
1,1-Dichloropropene	ND		0.0050	1	07/13/2015 19:51

(Cont.)



Angela Rydelius, Lab Manager



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/201	I5 13:00 GC10	107551
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	07/13/2015 19:51
trans-1,3-Dichloropropene	ND		0.0050	1	07/13/2015 19:51
Diisopropyl ether (DIPE)	ND		0.0050	1	07/13/2015 19:51
Ethylbenzene	ND		0.0050	1	07/13/2015 19:51
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	07/13/2015 19:51
Freon 113	ND		0.0050	1	07/13/2015 19:51
Hexachlorobutadiene	ND		0.0050	1	07/13/2015 19:51
Hexachloroethane	ND		0.0050	1	07/13/2015 19:51
2-Hexanone	ND		0.0050	1	07/13/2015 19:51
Isopropylbenzene	ND		0.0050	1	07/13/2015 19:51
4-Isopropyl toluene	ND		0.0050	1	07/13/2015 19:51
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	07/13/2015 19:51
Methylene chloride	ND		0.0050	1	07/13/2015 19:51
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	07/13/2015 19:51
Naphthalene	ND		0.0050	1	07/13/2015 19:51
n-Propyl benzene	ND		0.0050	1	07/13/2015 19:51
Styrene	ND		0.0050	1	07/13/2015 19:51
1,1,1,2-Tetrachloroethane	ND		0.0050	1	07/13/2015 19:51
1,1,2,2-Tetrachloroethane	ND		0.0050	1	07/13/2015 19:51
Tetrachloroethene	ND		0.0050	1	07/13/2015 19:51
Toluene	ND		0.0050	1	07/13/2015 19:51
1,2,3-Trichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,2,4-Trichlorobenzene	ND		0.0050	1	07/13/2015 19:51
1,1,1-Trichloroethane	ND		0.0050	1	07/13/2015 19:51
1,1,2-Trichloroethane	ND		0.0050	1	07/13/2015 19:51
Trichloroethene	ND		0.0050	1	07/13/2015 19:51
Trichlorofluoromethane	ND		0.0050	1	07/13/2015 19:51
1,2,3-Trichloropropane	ND		0.0050	1	07/13/2015 19:51
1,2,4-Trimethylbenzene	ND		0.0050	1	07/13/2015 19:51
1,3,5-Trimethylbenzene	ND		0.0050	1	07/13/2015 19:51
Vinyl Chloride	ND		0.0050	1	07/13/2015 19:51
Xylenes, Total	ND		0.0050	1	07/13/2015 19:51



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/13/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/20	15 13:00 GC10	107551
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		07/13/2015 19:51
Toluene-d8	99		70-130		07/13/2015 19:51
4-BFB	125		70-130		07/13/2015 19:51
Benzene-d6	94		60-140		07/13/2015 19:51
Ethylbenzene-d10	105		60-140		07/13/2015 19:51
1,2-DCB-d4	89		60-140		07/13/2015 19:51
<u>Analyst(s):</u> KF					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C-SIM
Date Prepared:	7/13/15	Unit:	mg/kg

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/201	15 10:20 GC35	107567
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Acenaphthene	ND		0.050	5	07/13/2015 16:44
Acenaphthylene	ND		0.050	5	07/13/2015 16:44
Anthracene	ND		0.050	5	07/13/2015 16:44
Benzo (a) anthracene	ND		0.050	5	07/13/2015 16:44
Benzo (b) fluoranthene	ND		0.050	5	07/13/2015 16:44
Benzo (k) fluoranthene	ND		0.050	5	07/13/2015 16:44
Benzo (g,h,i) perylene	ND		0.050	5	07/13/2015 16:44
Benzo (a) pyrene	ND		0.050	5	07/13/2015 16:44
Chrysene	ND		0.050	5	07/13/2015 16:44
Dibenzo (a,h) anthracene	ND		0.050	5	07/13/2015 16:44
Fluoranthene	ND		0.050	5	07/13/2015 16:44
Fluorene	ND		0.050	5	07/13/2015 16:44
Indeno (1,2,3-cd) pyrene	ND		0.050	5	07/13/2015 16:44
1-Methylnaphthalene	ND		0.050	5	07/13/2015 16:44
2-Methylnaphthalene	ND		0.050	5	07/13/2015 16:44
Naphthalene	ND		0.050	5	07/13/2015 16:44
Phenanthrene	ND		0.050	5	07/13/2015 16:44
Pyrene	ND		0.050	5	07/13/2015 16:44
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
1-Fluoronaphthalene	64		30-130		07/13/2015 16:44
2-Fluorobiphenyl	67		30-130		07/13/2015 16:44
<u>Analyst(s):</u> HK			Analytical Comm	nents: a3	



Client:	Applied Remedial Services, Inc.	Wo
Project:	94th & International	Ext
Date Received:	7/2/15 17:52	Ana

Date Prepared: 7/2/15

WorkOrder:	1507086
Extraction Method:	SW3050B
Analytical Method:	SW6020
Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/201	15 10:20 ICP-MS1	107559
Analytes	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Antimony	0.51		0.50	1	07/13/2015 20:27
Arsenic	4.5		0.50	1	07/13/2015 20:27
Barium	1800		5.0	1	07/13/2015 20:27
Beryllium	0.71		0.50	1	07/13/2015 20:27
Cadmium	0.57		0.25	1	07/13/2015 20:27
Chromium	61		0.50	1	07/13/2015 20:27
Cobalt	9.5		0.50	1	07/13/2015 20:27
Copper	32		0.50	1	07/13/2015 20:27
Lead	1000		5.0	10	07/14/2015 14:13
Mercury	15		0.50	10	07/14/2015 14:13
Molybdenum	ND		0.50	1	07/13/2015 20:27
Nickel	49		0.50	1	07/13/2015 20:27
Selenium	ND		0.50	1	07/13/2015 20:27
Silver	ND		0.50	1	07/13/2015 20:27
Thallium	ND		0.50	1	07/13/2015 20:27
Vanadium	58		0.50	1	07/13/2015 20:27
Zinc	730		5.0	1	07/13/2015 20:27
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	104		70-130		07/13/2015 20:27
Analyst(s): AC, DVH					



Client:	Applied Remedial Services, Inc.	Work
Project:	94th & International	Extrac
Date Received:	7/2/15 17:52	Analy
Date Prepared:	7/2/15	Unit:

WorkOrder:	1507086
Extraction Method:	SW3050B
Analytical Method:	SW6020
Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/20 ⁻	15 11:10 ICP-MS1	107559
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Antimony	1.8		0.50	1	07/13/2015 20:34
Arsenic	14		0.50	1	07/13/2015 20:34
Barium	270		5.0	1	07/14/2015 14:01
Beryllium	0.51		0.50	1	07/13/2015 20:34
Cadmium	1.4		0.25	1	07/13/2015 20:34
Chromium	44		0.50	1	07/13/2015 20:34
Cobalt	9.9		0.50	1	07/13/2015 20:34
Copper	68		0.50	1	07/13/2015 20:34
Lead	230		0.50	1	07/14/2015 14:01
Mercury	0.29		0.050	1	07/14/2015 14:01
Molybdenum	0.69		0.50	1	07/13/2015 20:34
Nickel	42		0.50	1	07/13/2015 20:34
Selenium	0.57		0.50	1	07/13/2015 20:34
Silver	ND		0.50	1	07/13/2015 20:34
Thallium	ND		0.50	1	07/13/2015 20:34
Vanadium	52		0.50	1	07/13/2015 20:34
Zinc	470		5.0	1	07/13/2015 20:34
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Terbium	101		70-130		07/13/2015 20:34
Analyst(s): AC, DVH					



1507086 SW3050B SW6020 mg/Kg

Analytical Report

Client:	Applied Remedial Services, Inc.	WorkOrder:
Project:	94th & International	Extraction Method :
Date Received:	7/2/15 17:52	Analytical Method:
Date Prepared:	7/2/15	Unit:

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected In	strument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/201	15 10:45 IC	P-MS1	107559
Analytes	<u>Result</u>		<u>RL</u>	DF		Date Analyzed
Antimony	0.68		0.50	1		07/13/2015 20:40
Arsenic	7.3		0.50	1		07/13/2015 20:40
Barium	400		5.0	1		07/13/2015 20:40
Beryllium	0.58		0.50	1		07/13/2015 20:40
Cadmium	0.54		0.25	1		07/13/2015 20:40
Chromium	56		0.50	1		07/13/2015 20:40
Cobalt	29		0.50	1		07/13/2015 20:40
Copper	35		0.50	1		07/13/2015 20:40
Lead	120		0.50	1		07/13/2015 20:40
Mercury	0.13		0.050	1		07/14/2015 14:07
Molybdenum	0.89		0.50	1		07/13/2015 20:40
Nickel	75		0.50	1		07/13/2015 20:40
Selenium	0.58		0.50	1		07/13/2015 20:40
Silver	ND		0.50	1		07/13/2015 20:40
Thallium	ND		0.50	1		07/13/2015 20:40
Vanadium	56		0.50	1		07/13/2015 20:40
Zinc	150		5.0	1		07/13/2015 20:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Terbium	107		70-130			07/13/2015 20:40
Analyst(s): AC, DVH						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/13/15	BatchID:	107558
Date Analyzed:	7/13/15	Extraction Method:	SW3550B
Instrument:	GC5A	Analytical Method:	SW8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107558 1507086-004AMS/MSD

QC Summary Report for SW8082									
Analyte	MB Result	LCS Result		RL	SPK Val	ME %F	B SS REC	LCS %REC	LCS Limits
Aroclor1016	ND	-		0.050	-	-		-	-
Aroclor1221	ND	-		0.050	-	-		-	-
Aroclor1232	ND	-		0.050	-	-		-	-
Aroclor1242	ND	-		0.050	-	-		-	-
Aroclor1248	ND	-		0.050	-	-		-	-
Aroclor1254	ND	-		0.050	-	-		-	-
Aroclor1260	ND	0.130		0.050	0.15	-		87	70-130
PCBs, total	ND	-		0.050	-	-		-	-
Surrogate Recovery									
Decachlorobiphenyl	0.0390	0.0403			0.050	78		81	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/M Limits	SD RP	D RPD Limit
Aroclor1260	0.148	0.154	0.15	ND	99	103	70-13	0 4.2	8 30
Surrogate Recovery									
Decachlorobiphenyl	0.0386	0.0393	0.050		77	79	70-13	0 1.9	8 30

QA/QC Officer Page 11 of 20



Quality Control Report

Client:	Applied Remedial Services, Inc.
Date Prepared:	7/13/15
Date Analyzed:	7/13/15
Instrument:	GC16
Matrix:	Soil
Project:	94th & International

WorkOrder:	1507086
BatchID:	107551
Extraction Method:	SW5030B
Analytical Method:	SW8260B
Unit:	mg/Kg
Sample ID:	MB/LCS-10755

QC Summary Report for SW8260B MB LCS RL SPK MB SS LCS LCS Analyte Result Result Val %REC %REC Limits ND 0.10 Acetone tert-Amyl methyl ether (TAME) ND 0.0405 0.0050 0.050 81 53-116 _ ND 0.0491 0.050 98 Benzene 0.0050 _ 63-137 Bromobenzene ND 0.0050 _ ND Bromochloromethane _ 0.0050 _ Bromodichloromethane ND 0.0050 _ -_ _ _ Bromoform ND -0.0050 --_ _ Bromomethane ND 0.0050 _ _ _ _ _ 2-Butanone (MEK) ND 0.020 _ _ t-Butyl alcohol (TBA) ND 0.157 0.050 0.20 78 -41-135 n-Butyl benzene ND _ 0.0050 _ _ _ ND 0.0050 sec-Butyl benzene _ _ _ _ _ ND 0.0050 tert-Butyl benzene _ _ _ _ _ ND Carbon Disulfide _ 0.0050 _ _ _ _ Carbon Tetrachloride ND 0.0050 _ _ _ _ Chlorobenzene ND 0.0462 0.0050 0.050 92 77-121 _ Chloroethane ND 0.0050 --_ _ -Chloroform ND 0.0050 ---_ Chloromethane ND 0.0050 _ _ _ _ _ 2-Chlorotoluene ND 0.0050 ND 4-Chlorotoluene 0.0050 _ _ _ _ _ ND Dibromochloromethane 0.0050 _ _ _ _ ND 1,2-Dibromo-3-chloropropane 0.0040 1,2-Dibromoethane (EDB) ND 0.0437 0.0040 0.050 87 67-119 _ Dibromomethane ND -0.0050 -_ _ _ 1,2-Dichlorobenzene ND 0.0050 _ _ _ _ _ 1,3-Dichlorobenzene ND 0.0050 _ _ _ ND 1,4-Dichlorobenzene 0.0050 --_ --Dichlorodifluoromethane ND 0.0050 _ _ _ _ _ ND 1,1-Dichloroethane 0.0050 --_ _ _ 1,2-Dichloroethane (1,2-DCA) ND 0.0484 0.0040 0.050 97 58-135 _ 1,1-Dichloroethene ND 0.0486 0.0050 0.050 97 42-145 _ ND 0.0050 cis-1,2-Dichloroethene _ _ trans-1,2-Dichloroethene ND 0.0050 _ 1,2-Dichloropropane ND 0.0050 _ -_

ND 1,3-Dichloropropane _ 0.0050 -_ _ _ 2,2-Dichloropropane ND 0.0050 _ _ _ _ _ 1,1-Dichloropropene ND 0.0050 _ _ _ _ ND 0.0050 cis-1,3-Dichloropropene --_ _ trans-1,3-Dichloropropene ND _ 0.0050 _ _

(Cont.)

QA/QC Officer Page 12 of 20



Quality Control Report

Client:	Applied Remedial Services, Inc.
Date Prepared:	7/13/15
Date Analyzed:	7/13/15
Instrument:	GC16
Matrix:	Soil
Project:	94th & International

WorkOrder:	1507086
BatchID:	107551
Extraction Method:	SW5030B
Analytical Method:	SW8260B
Unit:	mg/Kg
Sample ID:	MB/LCS-107551

QC Summary Report for SW8260B MB LCS RL SPK MB SS LCS LCS Analyte Result Result Val %REC %REC Limits Diisopropyl ether (DIPE) ND 0.0464 0.0050 0.050 93 52-129 _ Ethylbenzene ND 0.0050 Ethyl tert-butyl ether (ETBE) ND 0.0439 0.050 88 53-125 0.0050 _ Freon 113 ND 0.0050 _ ND Hexachlorobutadiene _ 0.0050 _ Hexachloroethane ND 0.0050 _ -_ _ _ 2-Hexanone ND -0.0050 --_ _ Isopropylbenzene ND 0.0050 _ _ _ _ _ 4-Isopropyl toluene ND 0.0050 _ _ _ Methyl-t-butyl ether (MTBE) ND 0.0427 0.0050 0.050 85 -58-122 Methylene chloride ND _ 0.0050 _ _ _ _ ND 0.0050 4-Methyl-2-pentanone (MIBK) _ _ _ _ _ ND 0.0050 Naphthalene _ _ _ _ _ n-Propyl benzene ND 0.0050 _ _ _ _ _ Styrene ND _ 0.0050 _ _ _ _ 1,1,1,2-Tetrachloroethane ND 0.0050 _ _ _ _ _ 1,1,2,2-Tetrachloroethane ND 0.0050 --_ _ _ Tetrachloroethene ND 0.0050 _ -Toluene ND 0.0511 0.0050 0.050 102 76-130 _ 1,2,3-Trichlorobenzene ND 0.0050 ND 1,2,4-Trichlorobenzene 0.0050 _ _ _ _ _ ND 1,1,1-Trichloroethane 0.0050 _ _ _ _ _ 1,1,2-Trichloroethane ND 0.0050 _ _ Trichloroethene ND 0.0464 0.0050 0.050 93 72-132 _ Trichlorofluoromethane ND -0.0050 -_ _ _ 1,2,3-Trichloropropane ND 0.0050 _ _ _ _ 1,2,4-Trimethylbenzene ND 0.0050 _ _ ND 0.0050 1,3,5-Trimethylbenzene _ -_ _ -Vinyl Chloride ND 0.0050 _ -_ _ ND Xylenes, Total 0.0050 _ -_ _ _ Surrogate Recovery Dibromofluoromethane 0.124 0.128 0.12 99 102 70-130 Toluene-d8 0.133 0.132 0.12 107 106 70-130 4-BFB 0.0126 0.0127 0.012 100 101 70-130 0.10 Benzene-d6 0.0967 0.0964 97 96 60-140 Ethylbenzene-d10 0.100 0.104 0.10 100 104 60-140 1,2-DCB-d4 0.0764 0.0804 0.10 76 80 60-140

QA/QC Officer Page 13 of 20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/13/15	BatchID:	107567
Date Analyzed:	7/13/15	Extraction Method:	SW3550B
Instrument:	GC35	Analytical Method:	SW8270C-SIM
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107567 1507086-004AMS/MSD

	QC Sumr	nary Report f	or SW8270C				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	-	0.010	-	-	-	-
Acenaphthylene	ND	-	0.010	-	-	-	-
Anthracene	ND	-	0.010	-	-	-	-
Benzo (a) anthracene	ND	-	0.010	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.010	-	-	-	-
Benzo (a) pyrene	ND	0.169	0.010	0.20	-	84	30-130
Chrysene	ND	0.135	0.010	0.20	-	68	30-130
Dibenzo (a,h) anthracene	ND	-	0.010	-	-	-	-
Fluoranthene	ND	-	0.010	-	-	-	-
Fluorene	ND	-	0.010	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.010	-	-	-	-
1-Methylnaphthalene	ND	0.169	0.010	0.20	-	84	30-130
2-Methylnaphthalene	ND	0.169	0.010	0.20	-	85	30-130
Naphthalene	ND	-	0.010	-	-	-	-
Phenanthrene	ND	0.150	0.010	0.20	-	75	30-130
Pyrene	ND	0.134	0.010	0.20	-	67	30-130
Surrogate Recovery							
1-Fluoronaphthalene	0.210	0.310		0.50	42	62	30-130
2-Fluorobiphenyl	0.213	0.278		0.50	43	56	30-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzo (a) pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Chrysene	NR	NR		ND<0.05	NR	NR	-	NR	
1-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
2-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
Phenanthrene	NR	NR		ND<0.05	NR	NR	-	NR	
Pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Surrogate Recovery									
1-Fluoronaphthalene	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	

_____QA/QC Officer Page 14 of 20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107559
Date Analyzed:	7/13/15	Extraction Method:	SW3050B
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107559 1507086-021AMS/MSD

MB Result ND	LCS Result	RL	SPK Val	MB SS	LCS	
ND				%REC	%REC	Limits
	51.4	0.50	50	-	103	75-125
ND	53.0	0.50	50	-	106	75-125
ND	466	5.0	500	-	93	75-125
ND	50.6	0.50	50	-	101	75-125
ND	51.5	0.25	50	-	103	75-125
ND	52.4	0.50	50	-	105	75-125
ND	51.7	0.50	50	-	103	75-125
ND	50.7	0.50	50	-	101	75-125
ND	52.5	0.50	50	-	105	75-125
ND	1.14	0.050	1.25	-	89	75-125
ND	49.3	0.50	50	-	99	75-125
ND	51.4	0.50	50	-	103	75-125
ND	54.0	0.50	50	-	108	75-125
ND	51.4	0.50	50	-	103	75-125
ND	50.8	0.50	50	-	102	75-125
ND	51.9	0.50	50	-	104	75-125
ND	530	5.0	500	-	106	75-125
467	486		500	93	97	70-130
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND 53.0 ND 466 ND 50.6 ND 51.5 ND 52.4 ND 51.7 ND 50.7 ND 52.5 ND 1.14 ND 51.4 ND 51.4 ND 51.4 ND 51.4 ND 51.9 ND 51.9 ND 530 467 486	ND 53.0 0.50 ND 466 5.0 ND 50.6 0.50 ND 51.5 0.25 ND 52.4 0.50 ND 51.7 0.50 ND 50.7 0.50 ND 52.5 0.50 ND 52.5 0.50 ND 1.14 0.050 ND 49.3 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.4 0.50 ND 51.9 0.50 ND 51.9 0.50 ND 51.9 0.50 ND 530 5.0 467 486 486	ND 53.0 0.50 50 ND 466 5.0 500 ND 50.6 0.50 50 ND 51.5 0.25 50 ND 52.4 0.50 50 ND 51.7 0.50 50 ND 50.7 0.50 50 ND 52.5 0.50 50 ND 52.5 0.50 50 ND 52.5 0.50 50 ND 1.14 0.050 1.25 ND 49.3 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.4 0.50 50 ND 51.9 0.50 50 ND 51.9 0.50 50 ND 51.9 5.0 500 ND 530 5.0 50	ND 53.0 0.50 50 - ND 466 5.0 500 - ND 50.6 0.50 50 - ND 51.5 0.25 50 - ND 51.7 0.50 50 - ND 50.7 0.50 50 - ND 50.7 0.50 50 - ND 50.7 0.50 50 - ND 52.5 0.50 50 - ND 49.3 0.50 50 - ND 51.4 0.50 50 - ND 51.9 0.50 50 - ND 51.9 0.50 50 - ND 51.9 5.0 500	ND 53.0 0.50 50 - 106 ND 466 5.0 500 - 93 ND 50.6 0.50 50 - 101 ND 51.5 0.25 50 - 103 ND 52.4 0.50 50 - 103 ND 51.7 0.50 50 - 103 ND 50.7 0.50 50 - 101 ND 52.5 0.50 50 - 101 ND 52.5 0.50 50 - 105 ND 1.14 0.050 1.25 - 89 ND 49.3 0.50 50 - 103 ND 51.4 0.50 50 - 108 ND 51.4 0.50 50 - 102 ND 51.9 0.50 50 - 104 ND 5



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107559
Date Analyzed:	7/13/15	Extraction Method:	SW3050B
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107559 1507086-021AMS/MSD

	QC Su	nmary R	eport f	or Metals					
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	48.5	51.4	50	ND	96	102	75-125	5.73	20
Arsenic	59.0	66.0	50	9.562	99	113	75-125	11.1	20
Barium	739	829	500	260.8	96	114	75-125	11.5	20
Beryllium	46.4	51.0	50	0.6513	92	101	75-125	9.36	20
Cadmium	55.5	59.9	50	0.4457	110	119	75-125	7.59	20
Chromium	NR	NR	50	63.90	NR	NR	75-125	NR	20
Cobalt	57.7	67.3	50	16.48	82	102	75-125	15.4	20
Copper	70.4	78.7	50	24.41	92	109	75-125	11.1	20
Lead	60.5	65.1	50	8.840	103	113	75-125	7.32	20
Mercury	1.24	1.37	1.25	0.09140	92	102	75-125	9.98	20
Molybdenum	53.4	57.4	50	0.6746	105	114	75-125	7.27	20
Nickel	NR	NR	50	93.99	NR	NR	75-125	NR	20
Selenium	54.0	54.6	50	ND	107	109	75-125	1.12	20
Silver	54.8	58.5	50	ND	109	117	75-125	6.44	20
Thallium	51.5	55.5	50	ND	103	110	75-125	7.40	20
Vanadium	NR	NR	50	58.16	NR	NR	75-125	NR	20
Zinc	572	615	500	59.14	102	111	75-125	7.33	20
Surrogate Recovery									
Terbium	529	558	500		106	112	70-130	5.24	20

_QA/QC Officer Page 16 of 20

1534 Willow Pass Rd Pittsburg CA 94565-1701				СП/	4111	-UF-(202	\sim	UYI	ΚE	CUR	D	-	. uge		
(925) 252-9262				Wo	rkOrd	er: 1507()86 (Clie	ntCo	de: ARS	SВ				
	WaterTrax	WriteC	n 🗌 EDF	E	xcel	Fax		VE	mail		HardCop	y	ThirdPa	arty	_ J-flag	J
Report to:					Bill	to:					F	٦equ	ested TAT:	:	5 d	ays
Michael F. Kara	Email: mn	nkara707@a	aol.com			Accounts	Payable	e I Son	viceo In	~	1	Date	Received	! :	07/02/2	015
P.O. Box 5086	PO:					P.O. Box 8	5086	i Ser	nces, m	С.	1	Date	Add-On:		07/13/2	015
Walnut Creek, CA 94596-1086 707-748-4205 FAX: 707-748-420	ProjectNo: 94t	th & Internat	ional		,	Walnut Cr	eek, C/	A 945	96-1086	5	1	Date	Printed:		07/13/2	015
								Req	uested T	ests	(See leger	nd be	elow)			
Lab ID Client	: ID	Matrix	Collection Date	e Hold	1	2	3	4	5	6	7	8	9	10	11	12

1507086-001	SB1-2'	Soil	7/2/2015 9:45			А				
1507086-004	SB2-2'	Soil	7/2/2015 10:20	Α		Α	А			
1507086-007	SB3-2'	Soil	7/2/2015 11:10				А			
1507086-013	SB7-2'	Soil	7/2/2015 13:00		А					
1507086-016	SB8-2'	Soil	7/2/2015 10:45				А			

Test Legend:

1	8082_PCB_S	2	8260B_S	3	8270_PNA_S	4	CAM17MS_S	5	
6		7		8		9		10	
11		12							

Prepared by: Erika Santos

Add-On Prepared By: Jena Alfaro

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15. Additional Analysis per email added 7/13/15 1 and 2D TATs

WORK ORDER SUMMARY

Client Name:	APPLIED REMEDIAI	L SERVICES, INC	2.	QC Level: LEVEL 2			Wo	rk Order:	1507086
Project:	94th & International		С	lient Contact: Michael F		Date	Received:	7/2/2015	
Comments:	Pb STLC: 1507086-001A 7/6/15 5D TAT. 001 Not	a, -004A, -007A, -02 enough sample rem	10A, -013A, -016A. Co aining for anything!	ntact's Email: mmkara70	07@aol.com		Date	e Add-On:	7/13/2015
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1507086-001A	SB1-2'	Soil	SW8270C (PAHs/PNAs)	1	Acetate Liner	7/2/2015 9:45	2 days		
1507086-004A	SB2-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 10:20	1 day		
			SW8270C (PAHs/PNAs)				2 days		
			SW8082 (PCBs Only)				2 days		
1507086-007A	SB3-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 11:10	1 day		
1507086-013A	SB7-2'	Soil	SW8260B (VOCs)	1	Acetate Liner	7/2/2015 13:00	1 day		
1507086-016A	SB8-2'	Soil	SW6020 (CAM 17)	1	Acetate Liner	7/2/2015 10:45	1 day		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

IVICCAIVIPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701										,				CHAIN OF CUSTODY RECORD TURN AROUND TIME																
Website: <u>www.mccampbell.com</u> Email: main@mccampbell.com Telephone: (877) 252-9262 Fax: (925) 252-9269											Geo	[ra	ckei	·E	DF		PE Ch)F		SH Ex	24 cel		l V	48 H Vri	IR te O	72 H	R 5 DAY W) □			
Report To: 🔥	chael Karo		I	Bill T	0:	AR	5, 1	Inc					+					Ana	lysi	s Re	aues	n sa	mp	le is	em	uent			her	Commen
Company: 🚗	es, Inc.														_				2								+	-	1 to	Comment
p.0. Box 5086								TBE		B&F				genei									A	AP	Filter					
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		20										ι,																						
McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701 Website: <u>www.mccampbell.com</u> Email: main@mccampbell.com Telephone: (877) 252-9262 Fax: (925) 252-9269										T G	UR Geo	RN . Fra	AR	C OU er F	CHL INE EDF	AI T T	N IM J	OF E PD Ch	F C		ST SH Ex	OI 24 cel le is	DY HR	R	EC 481 Wri	CO HR ite (7 0n J" f	D 2 HF (D) lag i	5 DAY					
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/10/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

Project: 94th & International

WorkOrder: 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.


Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A/8082
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Co	llected	Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/201	15 09:45	GC22	107184
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>		Date Analyzed
Aldrin	ND		0.010	10		07/08/2015 08:49
a-BHC	ND		0.010	10		07/08/2015 08:49
b-BHC	ND		0.010	10		07/08/2015 08:49
d-BHC	ND		0.010	10		07/08/2015 08:49
g-BHC	ND		0.010	10		07/08/2015 08:49
Chlordane (Technical)	0.84		0.25	10		07/08/2015 08:49
a-Chlordane	0.089		0.010	10		07/08/2015 08:49
g-Chlordane	0.096		0.010	10		07/08/2015 08:49
p,p-DDD	0.018		0.010	10		07/08/2015 08:49
p,p-DDE	ND		0.010	10		07/08/2015 08:49
p,p-DDT	ND		0.010	10		07/08/2015 08:49
Dieldrin	ND		0.010	10		07/08/2015 08:49
Endosulfan I	ND		0.010	10		07/08/2015 08:49
Endosulfan II	ND		0.010	10		07/08/2015 08:49
Endosulfan sulfate	ND		0.010	10		07/08/2015 08:49
Endrin	ND		0.010	10		07/08/2015 08:49
Endrin aldehyde	ND		0.010	10		07/08/2015 08:49
Endrin ketone	ND		0.010	10		07/08/2015 08:49
Heptachlor	ND		0.010	10		07/08/2015 08:49
Heptachlor epoxide	ND		0.010	10		07/08/2015 08:49
Hexachlorobenzene	ND		0.10	10		07/08/2015 08:49
Hexachlorocyclopentadiene	ND		0.20	10		07/08/2015 08:49
Methoxychlor	ND		0.010	10		07/08/2015 08:49
Toxaphene	ND		0.50	10		07/08/2015 08:49
Aroclor1016	ND		0.50	10		07/08/2015 08:49
Aroclor1221	ND		0.50	10		07/08/2015 08:49
Aroclor1232	ND		0.50	10		07/08/2015 08:49
Aroclor1242	ND		0.50	10		07/08/2015 08:49
Aroclor1248	ND		0.50	10		07/08/2015 08:49
Aroclor1254	ND		0.50	10		07/08/2015 08:49
Aroclor1260	ND		0.50	10		07/08/2015 08:49
PCBs, total	ND		0.50	10		07/08/2015 08:49
Surrogates	<u>REC (%)</u>		<u>Limits</u>			
Decachlorobiphenyl	99		70-130			07/08/2015 08:49
Analyst(s): CK						





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A/8082
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/2015 13:00 GC22	107113
Analytes	<u>Result</u>		<u>RL DF</u>	Date Analyzed
Aldrin	ND		0.0010 1	07/03/2015 01:39
a-BHC	ND		0.0010 1	07/03/2015 01:39
b-BHC	ND		0.0010 1	07/03/2015 01:39
d-BHC	ND		0.0010 1	07/03/2015 01:39
g-BHC	ND		0.0010 1	07/03/2015 01:39
Chlordane (Technical)	ND		0.025 1	07/03/2015 01:39
a-Chlordane	0.0023		0.0010 1	07/03/2015 01:39
g-Chlordane	0.0027		0.0010 1	07/03/2015 01:39
p,p-DDD	0.0024		0.0010 1	07/03/2015 01:39
p,p-DDE	0.0048		0.0010 1	07/03/2015 01:39
p,p-DDT	0.021		0.0010 1	07/03/2015 01:39
Dieldrin	0.0043		0.0010 1	07/03/2015 01:39
Endosulfan I	ND		0.0010 1	07/03/2015 01:39
Endosulfan II	ND		0.0010 1	07/03/2015 01:39
Endosulfan sulfate	ND		0.0010 1	07/03/2015 01:39
Endrin	ND		0.0010 1	07/03/2015 01:39
Endrin aldehyde	ND		0.0010 1	07/03/2015 01:39
Endrin ketone	ND		0.0010 1	07/03/2015 01:39
Heptachlor	ND		0.0010 1	07/03/2015 01:39
Heptachlor epoxide	ND		0.0010 1	07/03/2015 01:39
Hexachlorobenzene	ND		0.010 1	07/03/2015 01:39
Hexachlorocyclopentadiene	ND		0.020 1	07/03/2015 01:39
Methoxychlor	ND		0.0010 1	07/03/2015 01:39
Toxaphene	ND		0.050 1	07/03/2015 01:39
Aroclor1016	ND		0.050 1	07/03/2015 01:39
Aroclor1221	ND		0.050 1	07/03/2015 01:39
Aroclor1232	ND		0.050 1	07/03/2015 01:39
Aroclor1242	ND		0.050 1	07/03/2015 01:39
Aroclor1248	ND		0.050 1	07/03/2015 01:39
Aroclor1254	ND		0.050 1	07/03/2015 01:39
Aroclor1260	ND		0.050 1	07/03/2015 01:39
PCBs, total	ND		0.050 1	07/03/2015 01:39
Surrogates	<u>REC (%)</u>		Limits	
Decachlorobiphenyl	97		70-130	07/03/2015 01:39
Analyst(s): CK				





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A/8082
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List) + PCBs

Client ID	Lab ID	Matrix	Date Collec	ted Instrument	Batch ID
SB9-2'	1507086-019A	Soil	07/02/2015 1 ⁻	1:40 GC22	107113
Analytes	<u>Result</u>		<u>RL</u> D	E	Date Analyzed
Aldrin	ND		0.0010 1		07/03/2015 02:12
a-BHC	ND		0.0010 1		07/03/2015 02:12
b-BHC	ND		0.0010 1		07/03/2015 02:12
d-BHC	ND		0.0010 1		07/03/2015 02:12
g-BHC	ND		0.0010 1		07/03/2015 02:12
Chlordane (Technical)	ND		0.025 1		07/03/2015 02:12
a-Chlordane	ND		0.0010 1		07/03/2015 02:12
g-Chlordane	ND		0.0010 1		07/03/2015 02:12
p,p-DDD	ND		0.0010 1		07/03/2015 02:12
p,p-DDE	0.0029		0.0010 1		07/03/2015 02:12
p,p-DDT	0.0022		0.0010 1		07/03/2015 02:12
Dieldrin	ND		0.0010 1		07/03/2015 02:12
Endosulfan I	ND		0.0010 1		07/03/2015 02:12
Endosulfan II	ND		0.0010 1		07/03/2015 02:12
Endosulfan sulfate	ND		0.0010 1		07/03/2015 02:12
Endrin	ND		0.0010 1		07/03/2015 02:12
Endrin aldehyde	ND		0.0010 1		07/03/2015 02:12
Endrin ketone	ND		0.0010 1		07/03/2015 02:12
Heptachlor	ND		0.0010 1		07/03/2015 02:12
Heptachlor epoxide	ND		0.0010 1		07/03/2015 02:12
Hexachlorobenzene	ND		0.010 1		07/03/2015 02:12
Hexachlorocyclopentadiene	ND		0.020 1		07/03/2015 02:12
Methoxychlor	ND		0.0010 1		07/03/2015 02:12
Toxaphene	ND		0.050 1		07/03/2015 02:12
Aroclor1016	ND		0.050 1		07/03/2015 02:12
Aroclor1221	ND		0.050 1		07/03/2015 02:12
Aroclor1232	ND		0.050 1		07/03/2015 02:12
Aroclor1242	ND		0.050 1		07/03/2015 02:12
Aroclor1248	ND		0.050 1		07/03/2015 02:12
Aroclor1254	ND		0.050 1		07/03/2015 02:12
Aroclor1260	ND		0.050 1		07/03/2015 02:12
PCBs, total	ND		0.050 1		07/03/2015 02:12
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Decachlorobiphenyl	96		70-130		07/03/2015 02:12
<u>Analyst(s):</u> CK					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A
Date Prepared:	7/2/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB3-2'	1507086-007	A Soil	07/02/201	5 11:10 GC22	107113
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
Aldrin	ND		0.0050	5	07/03/2015 02:46
a-BHC	ND		0.0050	5	07/03/2015 02:46
b-BHC	ND		0.0050	5	07/03/2015 02:46
d-BHC	ND		0.0050	5	07/03/2015 02:46
g-BHC	ND		0.0050	5	07/03/2015 02:46
Chlordane (Technical)	ND		0.12	5	07/03/2015 02:46
a-Chlordane	ND		0.0050	5	07/03/2015 02:46
g-Chlordane	ND		0.0050	5	07/03/2015 02:46
p,p-DDD	ND		0.0050	5	07/03/2015 02:46
p,p-DDE	ND		0.0050	5	07/03/2015 02:46
p,p-DDT	ND		0.0050	5	07/03/2015 02:46
Dieldrin	ND		0.0050	5	07/03/2015 02:46
Endosulfan I	ND		0.0050	5	07/03/2015 02:46
Endosulfan II	ND		0.0050	5	07/03/2015 02:46
Endosulfan sulfate	ND		0.0050	5	07/03/2015 02:46
Endrin	ND		0.0050	5	07/03/2015 02:46
Endrin aldehyde	ND		0.0050	5	07/03/2015 02:46
Endrin ketone	ND		0.0050	5	07/03/2015 02:46
Heptachlor	ND		0.0050	5	07/03/2015 02:46
Heptachlor epoxide	ND		0.0050	5	07/03/2015 02:46
Hexachlorobenzene	ND		0.050	5	07/03/2015 02:46
Hexachlorocyclopentadiene	ND		0.10	5	07/03/2015 02:46
Methoxychlor	ND		0.0050	5	07/03/2015 02:46
Toxaphene	ND		0.25	5	07/03/2015 02:46
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Decachlorobiphenyl	91		70-130		07/03/2015 02:46
<u>Analyst(s):</u> CK			Analytical Comm	<u>nents:</u> a3	



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A
Date Prepared:	7/2/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	llected Inst	trument	Batch ID
SB3-6'	1507086-008	A Soil	07/02/201	5 11:15 GC2	22	107113
Analytes	Result		<u>RL</u>	<u>DF</u>		ate Analyzed
Aldrin	ND		0.0010	1	0	7/03/2015 06:09
a-BHC	ND		0.0010	1	0	7/03/2015 06:09
b-BHC	ND		0.0010	1	0	7/03/2015 06:09
d-BHC	ND		0.0010	1	0	7/03/2015 06:09
g-BHC	ND		0.0010	1	0	7/03/2015 06:09
Chlordane (Technical)	ND		0.025	1	0	7/03/2015 06:09
a-Chlordane	ND		0.0010	1	0	7/03/2015 06:09
g-Chlordane	ND		0.0010	1	0	7/03/2015 06:09
p,p-DDD	ND		0.0010	1	0	7/03/2015 06:09
p,p-DDE	ND		0.0010	1	0	7/03/2015 06:09
p,p-DDT	ND		0.0010	1	0	7/03/2015 06:09
Dieldrin	ND		0.0010	1	0	7/03/2015 06:09
Endosulfan I	ND		0.0010	1	0	7/03/2015 06:09
Endosulfan II	ND		0.0010	1	0	7/03/2015 06:09
Endosulfan sulfate	ND		0.0010	1	0	7/03/2015 06:09
Endrin	ND		0.0010	1	0	7/03/2015 06:09
Endrin aldehyde	ND		0.0010	1	0	7/03/2015 06:09
Endrin ketone	ND		0.0010	1	0	7/03/2015 06:09
Heptachlor	ND		0.0010	1	0	7/03/2015 06:09
Heptachlor epoxide	ND		0.0010	1	0	7/03/2015 06:09
Hexachlorobenzene	ND		0.010	1	0	7/03/2015 06:09
Hexachlorocyclopentadiene	ND		0.020	1	0	7/03/2015 06:09
Methoxychlor	ND		0.0010	1	0	7/03/2015 06:09
Toxaphene	ND		0.050	1	0	7/03/2015 06:09
Surrogates	<u>REC (%)</u>		<u>Limits</u>			
Decachlorobiphenyl	98		70-130		0	7/03/2015 06:09
<u>Analyst(s):</u> CK						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8081A
Date Prepared:	7/2/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	llected	Instrument	Batch ID
SB7-6'	1507086-014A	Soil	07/02/201	5 13:05	GC22	107113
Analytes	Result		<u>RL</u>	DF		Date Analyzed
Aldrin	ND		0.0010	1		07/03/2015 07:16
a-BHC	ND		0.0010	1		07/03/2015 07:16
b-BHC	ND		0.0010	1		07/03/2015 07:16
d-BHC	ND		0.0010	1		07/03/2015 07:16
g-BHC	ND		0.0010	1		07/03/2015 07:16
Chlordane (Technical)	ND		0.025	1		07/03/2015 07:16
a-Chlordane	ND		0.0010	1		07/03/2015 07:16
g-Chlordane	ND		0.0010	1		07/03/2015 07:16
p,p-DDD	ND		0.0010	1		07/03/2015 07:16
p,p-DDE	ND		0.0010	1		07/03/2015 07:16
p,p-DDT	ND		0.0010	1		07/03/2015 07:16
Dieldrin	ND		0.0010	1		07/03/2015 07:16
Endosulfan I	ND		0.0010	1		07/03/2015 07:16
Endosulfan II	ND		0.0010	1		07/03/2015 07:16
Endosulfan sulfate	ND		0.0010	1		07/03/2015 07:16
Endrin	ND		0.0010	1		07/03/2015 07:16
Endrin aldehyde	ND		0.0010	1		07/03/2015 07:16
Endrin ketone	ND		0.0010	1		07/03/2015 07:16
Heptachlor	ND		0.0010	1		07/03/2015 07:16
Heptachlor epoxide	ND		0.0010	1		07/03/2015 07:16
Hexachlorobenzene	ND		0.010	1		07/03/2015 07:16
Hexachlorocyclopentadiene	ND		0.020	1		07/03/2015 07:16
Methoxychlor	ND		0.0010	1		07/03/2015 07:16
Toxaphene	ND		0.050	1		07/03/2015 07:16
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Decachlorobiphenyl	101		70-130			07/03/2015 07:16
<u>Analyst(s):</u> CK						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Colle	cted Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 (09:45 GC18	107183
Analytes	Result		<u>RL [</u>	DF	Date Analyzed
Acetone	ND		0.10	1	07/08/2015 14:24
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/08/2015 14:24
Benzene	ND		0.0050	1	07/08/2015 14:24
Bromobenzene	ND		0.0050	1	07/08/2015 14:24
Bromochloromethane	ND		0.0050	1	07/08/2015 14:24
Bromodichloromethane	ND		0.0050	1	07/08/2015 14:24
Bromoform	ND		0.0050	1	07/08/2015 14:24
Bromomethane	ND		0.0050	1	07/08/2015 14:24
2-Butanone (MEK)	ND		0.020	1	07/08/2015 14:24
t-Butyl alcohol (TBA)	ND		0.050	1	07/08/2015 14:24
n-Butyl benzene	ND		0.0050	1	07/08/2015 14:24
sec-Butyl benzene	ND		0.0050	1	07/08/2015 14:24
tert-Butyl benzene	ND		0.0050	1	07/08/2015 14:24
Carbon Disulfide	ND		0.0050	1	07/08/2015 14:24
Carbon Tetrachloride	ND		0.0050	1	07/08/2015 14:24
Chlorobenzene	ND		0.0050	1	07/08/2015 14:24
Chloroethane	ND		0.0050	1	07/08/2015 14:24
Chloroform	ND		0.0050	1	07/08/2015 14:24
Chloromethane	ND		0.0050	1	07/08/2015 14:24
2-Chlorotoluene	ND		0.0050	1	07/08/2015 14:24
4-Chlorotoluene	ND		0.0050	1	07/08/2015 14:24
Dibromochloromethane	ND		0.0050	1	07/08/2015 14:24
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/08/2015 14:24
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/08/2015 14:24
Dibromomethane	ND		0.0050	1	07/08/2015 14:24
1,2-Dichlorobenzene	ND		0.0050	1	07/08/2015 14:24
1,3-Dichlorobenzene	ND		0.0050	1	07/08/2015 14:24
1,4-Dichlorobenzene	ND		0.0050	1	07/08/2015 14:24
Dichlorodifluoromethane	ND		0.0050	1	07/08/2015 14:24
1,1-Dichloroethane	ND		0.0050	1	07/08/2015 14:24
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/08/2015 14:24
1,1-Dichloroethene	ND		0.0050	1	07/08/2015 14:24
cis-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 14:24
trans-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 14:24
1,2-Dichloropropane	ND		0.0050	1	07/08/2015 14:24
1,3-Dichloropropane	ND		0.0050	1	07/08/2015 14:24
2,2-Dichloropropane	ND		0.0050	1	07/08/2015 14:24
1,1-Dichloropropene	ND		0.0050	1	07/08/2015 14:24

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Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID	Matrix	Date Co	llected In	strument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/201	15 09:45 GC	:18	107183
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>		Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1		07/08/2015 14:24
trans-1,3-Dichloropropene	ND		0.0050	1		07/08/2015 14:24
Diisopropyl ether (DIPE)	ND		0.0050	1		07/08/2015 14:24
Ethylbenzene	ND		0.0050	1		07/08/2015 14:24
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1		07/08/2015 14:24
Freon 113	ND		0.0050	1		07/08/2015 14:24
Hexachlorobutadiene	ND		0.0050	1		07/08/2015 14:24
Hexachloroethane	ND		0.0050	1		07/08/2015 14:24
2-Hexanone	ND		0.0050	1		07/08/2015 14:24
Isopropylbenzene	ND		0.0050	1		07/08/2015 14:24
4-Isopropyl toluene	ND		0.0050	1		07/08/2015 14:24
Methyl-t-butyl ether (MTBE)	ND		0.0050	1		07/08/2015 14:24
Methylene chloride	ND		0.0050	1		07/08/2015 14:24
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1		07/08/2015 14:24
Naphthalene	ND		0.0050	1		07/08/2015 14:24
n-Propyl benzene	ND		0.0050	1		07/08/2015 14:24
Styrene	ND		0.0050	1		07/08/2015 14:24
1,1,1,2-Tetrachloroethane	ND		0.0050	1		07/08/2015 14:24
1,1,2,2-Tetrachloroethane	ND		0.0050	1		07/08/2015 14:24
Tetrachloroethene	ND		0.0050	1		07/08/2015 14:24
Toluene	ND		0.0050	1		07/08/2015 14:24
1,2,3-Trichlorobenzene	ND		0.0050	1		07/08/2015 14:24
1,2,4-Trichlorobenzene	ND		0.0050	1		07/08/2015 14:24
1,1,1-Trichloroethane	ND		0.0050	1		07/08/2015 14:24
1,1,2-Trichloroethane	ND		0.0050	1		07/08/2015 14:24
Trichloroethene	ND		0.0050	1		07/08/2015 14:24
Trichlorofluoromethane	ND		0.0050	1		07/08/2015 14:24
1,2,3-Trichloropropane	ND		0.0050	1		07/08/2015 14:24
1,2,4-Trimethylbenzene	ND		0.0050	1		07/08/2015 14:24
1,3,5-Trimethylbenzene	ND		0.0050	1		07/08/2015 14:24
Vinyl Chloride	ND		0.0050	1		07/08/2015 14:24
Xylenes, Total	ND		0.0050	1		07/08/2015 14:24



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID Matrix	Date Collected Instrument	Batch ID
SB1-2'	1507086-001A Soil	07/02/2015 09:45 GC18	107183
Analytes	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Surrogates	<u>REC (%)</u>	Limits	
Dibromofluoromethane	109	70-130	07/08/2015 14:24
Toluene-d8	112	70-130	07/08/2015 14:24
4-BFB	116	70-130	07/08/2015 14:24
Benzene-d6	105	60-140	07/08/2015 14:24
Ethylbenzene-d10	115	60-140	07/08/2015 14:24
1,2-DCB-d4	88	60-140	07/08/2015 14:24
<u>Analyst(s):</u> KF			





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/201	5 11:10 GC18	107108
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acetone	ND		0.10	1	07/08/2015 13:05
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/08/2015 13:05
Benzene	ND		0.0050	1	07/08/2015 13:05
Bromobenzene	ND		0.0050	1	07/08/2015 13:05
Bromochloromethane	ND		0.0050	1	07/08/2015 13:05
Bromodichloromethane	ND		0.0050	1	07/08/2015 13:05
Bromoform	ND		0.0050	1	07/08/2015 13:05
Bromomethane	ND		0.0050	1	07/08/2015 13:05
2-Butanone (MEK)	ND		0.020	1	07/08/2015 13:05
t-Butyl alcohol (TBA)	ND		0.050	1	07/08/2015 13:05
n-Butyl benzene	ND		0.0050	1	07/08/2015 13:05
sec-Butyl benzene	ND		0.0050	1	07/08/2015 13:05
tert-Butyl benzene	ND		0.0050	1	07/08/2015 13:05
Carbon Disulfide	ND		0.0050	1	07/08/2015 13:05
Carbon Tetrachloride	ND		0.0050	1	07/08/2015 13:05
Chlorobenzene	ND		0.0050	1	07/08/2015 13:05
Chloroethane	ND		0.0050	1	07/08/2015 13:05
Chloroform	ND		0.0050	1	07/08/2015 13:05
Chloromethane	ND		0.0050	1	07/08/2015 13:05
2-Chlorotoluene	ND		0.0050	1	07/08/2015 13:05
4-Chlorotoluene	ND		0.0050	1	07/08/2015 13:05
Dibromochloromethane	ND		0.0050	1	07/08/2015 13:05
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/08/2015 13:05
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/08/2015 13:05
Dibromomethane	ND		0.0050	1	07/08/2015 13:05
1,2-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:05
1,3-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:05
1,4-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:05
Dichlorodifluoromethane	ND		0.0050	1	07/08/2015 13:05
1,1-Dichloroethane	ND		0.0050	1	07/08/2015 13:05
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/08/2015 13:05
1,1-Dichloroethene	ND		0.0050	1	07/08/2015 13:05
cis-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 13:05
trans-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 13:05
1,2-Dichloropropane	ND		0.0050	1	07/08/2015 13:05
1,3-Dichloropropane	ND		0.0050	1	07/08/2015 13:05
2,2-Dichloropropane	ND		0.0050	1	07/08/2015 13:05
1,1-Dichloropropene	ND		0.0050	1	07/08/2015 13:05

(Cont.)

_____Angela Rydelius, Lab Manager



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/20 ⁻	15 11:10 GC18	107108
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	07/08/2015 13:05
trans-1,3-Dichloropropene	ND		0.0050	1	07/08/2015 13:05
Diisopropyl ether (DIPE)	ND		0.0050	1	07/08/2015 13:05
Ethylbenzene	ND		0.0050	1	07/08/2015 13:05
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	07/08/2015 13:05
Freon 113	ND		0.0050	1	07/08/2015 13:05
Hexachlorobutadiene	ND		0.0050	1	07/08/2015 13:05
Hexachloroethane	ND		0.0050	1	07/08/2015 13:05
2-Hexanone	ND		0.0050	1	07/08/2015 13:05
Isopropylbenzene	ND		0.0050	1	07/08/2015 13:05
4-Isopropyl toluene	ND		0.0050	1	07/08/2015 13:05
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	07/08/2015 13:05
Methylene chloride	ND		0.0050	1	07/08/2015 13:05
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	07/08/2015 13:05
Naphthalene	ND		0.0050	1	07/08/2015 13:05
n-Propyl benzene	ND		0.0050	1	07/08/2015 13:05
Styrene	ND		0.0050	1	07/08/2015 13:05
1,1,1,2-Tetrachloroethane	ND		0.0050	1	07/08/2015 13:05
1,1,2,2-Tetrachloroethane	ND		0.0050	1	07/08/2015 13:05
Tetrachloroethene	ND		0.0050	1	07/08/2015 13:05
Toluene	ND		0.0050	1	07/08/2015 13:05
1,2,3-Trichlorobenzene	ND		0.0050	1	07/08/2015 13:05
1,2,4-Trichlorobenzene	ND		0.0050	1	07/08/2015 13:05
1,1,1-Trichloroethane	ND		0.0050	1	07/08/2015 13:05
1,1,2-Trichloroethane	ND		0.0050	1	07/08/2015 13:05
Trichloroethene	ND		0.0050	1	07/08/2015 13:05
Trichlorofluoromethane	ND		0.0050	1	07/08/2015 13:05
1,2,3-Trichloropropane	ND		0.0050	1	07/08/2015 13:05
1,2,4-Trimethylbenzene	ND		0.0050	1	07/08/2015 13:05
1,3,5-Trimethylbenzene	ND		0.0050	1	07/08/2015 13:05
Vinyl Chloride	ND		0.0050	1	07/08/2015 13:05
Xylenes, Total	ND		0.0050	1	07/08/2015 13:05



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID Matrix	Date Collected Instrument	Batch ID
SB3-2'	1507086-007A Soil	07/02/2015 11:10 GC18	107108
Analytes	Result	<u>RL DF</u>	Date Analyzed
Surrogates	<u>REC (%)</u>	Limits	
Dibromofluoromethane	109	70-130	07/08/2015 13:05
Toluene-d8	114	70-130	07/08/2015 13:05
4-BFB	117	70-130	07/08/2015 13:05
Benzene-d6	104	60-140	07/08/2015 13:05
Ethylbenzene-d10	108	60-140	07/08/2015 13:05
1,2-DCB-d4	83	60-140	07/08/2015 13:05
<u>Analyst(s):</u> KF			





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB3-6'	1507086-008A	Soil	07/02/201	5 11:15 GC18	107108
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acetone	ND		0.10	1	07/08/2015 13:45
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/08/2015 13:45
Benzene	ND		0.0050	1	07/08/2015 13:45
Bromobenzene	ND		0.0050	1	07/08/2015 13:45
Bromochloromethane	ND		0.0050	1	07/08/2015 13:45
Bromodichloromethane	ND		0.0050	1	07/08/2015 13:45
Bromoform	ND		0.0050	1	07/08/2015 13:45
Bromomethane	ND		0.0050	1	07/08/2015 13:45
2-Butanone (MEK)	ND		0.020	1	07/08/2015 13:45
t-Butyl alcohol (TBA)	ND		0.050	1	07/08/2015 13:45
n-Butyl benzene	ND		0.0050	1	07/08/2015 13:45
sec-Butyl benzene	ND		0.0050	1	07/08/2015 13:45
tert-Butyl benzene	ND		0.0050	1	07/08/2015 13:45
Carbon Disulfide	ND		0.0050	1	07/08/2015 13:45
Carbon Tetrachloride	ND		0.0050	1	07/08/2015 13:45
Chlorobenzene	ND		0.0050	1	07/08/2015 13:45
Chloroethane	ND		0.0050	1	07/08/2015 13:45
Chloroform	ND		0.0050	1	07/08/2015 13:45
Chloromethane	ND		0.0050	1	07/08/2015 13:45
2-Chlorotoluene	ND		0.0050	1	07/08/2015 13:45
4-Chlorotoluene	ND		0.0050	1	07/08/2015 13:45
Dibromochloromethane	ND		0.0050	1	07/08/2015 13:45
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/08/2015 13:45
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/08/2015 13:45
Dibromomethane	ND		0.0050	1	07/08/2015 13:45
1,2-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:45
1,3-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:45
1,4-Dichlorobenzene	ND		0.0050	1	07/08/2015 13:45
Dichlorodifluoromethane	ND		0.0050	1	07/08/2015 13:45
1,1-Dichloroethane	ND		0.0050	1	07/08/2015 13:45
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/08/2015 13:45
1,1-Dichloroethene	ND		0.0050	1	07/08/2015 13:45
cis-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 13:45
trans-1,2-Dichloroethene	ND		0.0050	1	07/08/2015 13:45
1,2-Dichloropropane	ND		0.0050	1	07/08/2015 13:45
1,3-Dichloropropane	ND		0.0050	1	07/08/2015 13:45
2,2-Dichloropropane	ND		0.0050	1	07/08/2015 13:45
1,1-Dichloropropene	ND		0.0050	1	07/08/2015 13:45

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_____Angela Rydelius, Lab Manager



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB3-6'	1507086-008A	Soil	07/02/201	15 11:15 GC18	107108
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	07/08/2015 13:45
trans-1,3-Dichloropropene	ND		0.0050	1	07/08/2015 13:45
Diisopropyl ether (DIPE)	ND		0.0050	1	07/08/2015 13:45
Ethylbenzene	ND		0.0050	1	07/08/2015 13:45
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	07/08/2015 13:45
Freon 113	ND		0.0050	1	07/08/2015 13:45
Hexachlorobutadiene	ND		0.0050	1	07/08/2015 13:45
Hexachloroethane	ND		0.0050	1	07/08/2015 13:45
2-Hexanone	ND		0.0050	1	07/08/2015 13:45
Isopropylbenzene	ND		0.0050	1	07/08/2015 13:45
4-Isopropyl toluene	ND		0.0050	1	07/08/2015 13:45
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	07/08/2015 13:45
Methylene chloride	ND		0.0050	1	07/08/2015 13:45
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	07/08/2015 13:45
Naphthalene	ND		0.0050	1	07/08/2015 13:45
n-Propyl benzene	ND		0.0050	1	07/08/2015 13:45
Styrene	ND		0.0050	1	07/08/2015 13:45
1,1,1,2-Tetrachloroethane	ND		0.0050	1	07/08/2015 13:45
1,1,2,2-Tetrachloroethane	ND		0.0050	1	07/08/2015 13:45
Tetrachloroethene	ND		0.0050	1	07/08/2015 13:45
Toluene	ND		0.0050	1	07/08/2015 13:45
1,2,3-Trichlorobenzene	ND		0.0050	1	07/08/2015 13:45
1,2,4-Trichlorobenzene	ND		0.0050	1	07/08/2015 13:45
1,1,1-Trichloroethane	ND		0.0050	1	07/08/2015 13:45
1,1,2-Trichloroethane	ND		0.0050	1	07/08/2015 13:45
Trichloroethene	ND		0.0050	1	07/08/2015 13:45
Trichlorofluoromethane	ND		0.0050	1	07/08/2015 13:45
1,2,3-Trichloropropane	ND		0.0050	1	07/08/2015 13:45
1,2,4-Trimethylbenzene	ND		0.0050	1	07/08/2015 13:45
1,3,5-Trimethylbenzene	ND		0.0050	1	07/08/2015 13:45
Vinyl Chloride	ND		0.0050	1	07/08/2015 13:45
Xylenes, Total	ND		0.0050	1	07/08/2015 13:45



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID Matrix	Date Collected Instrument	Batch ID
SB3-6'	1507086-008A Soil	07/02/2015 11:15 GC18	107108
Analytes	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Surrogates	<u>REC (%)</u>	Limits	
Dibromofluoromethane	108	70-130	07/08/2015 13:45
Toluene-d8	115	70-130	07/08/2015 13:45
4-BFB	118	70-130	07/08/2015 13:45
Benzene-d6	119	60-140	07/08/2015 13:45
Ethylbenzene-d10	140	60-140	07/08/2015 13:45
1,2-DCB-d4	103	60-140	07/08/2015 13:45
<u>Analyst(s):</u> KF			





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID	
SB9-2'	1507086-019A	Soil	07/02/20 ⁻	15 11:40 GC18	107183	
Analytes	Result		<u>RL</u>	DF	Date Analyzed	
Acetone	ND		0.10	1	07/07/2015 11:34	
tert-Amyl methyl ether (TAME)	ND		0.0050	1	07/07/2015 11:34	
Benzene	ND		0.0050	1	07/07/2015 11:34	
Bromobenzene	ND		0.0050	1	07/07/2015 11:34	
Bromochloromethane	ND		0.0050	1	07/07/2015 11:34	
Bromodichloromethane	ND		0.0050	1	07/07/2015 11:34	
Bromoform	ND		0.0050	1	07/07/2015 11:34	
Bromomethane	ND		0.0050	1	07/07/2015 11:34	
2-Butanone (MEK)	ND		0.020	1	07/07/2015 11:34	
t-Butyl alcohol (TBA)	ND		0.050	1	07/07/2015 11:34	
n-Butyl benzene	ND		0.0050	1	07/07/2015 11:34	
sec-Butyl benzene	ND		0.0050	1	07/07/2015 11:34	
tert-Butyl benzene	ND		0.0050	1	07/07/2015 11:34	
Carbon Disulfide	ND		0.0050	1	07/07/2015 11:34	
Carbon Tetrachloride	ND		0.0050	1	07/07/2015 11:34	
Chlorobenzene	ND		0.0050	1	07/07/2015 11:34	
Chloroethane	ND		0.0050	1	07/07/2015 11:34	
Chloroform	ND		0.0050	1	07/07/2015 11:34	
Chloromethane	ND		0.0050	1	07/07/2015 11:34	
2-Chlorotoluene	ND		0.0050	1	07/07/2015 11:34	
4-Chlorotoluene	ND		0.0050	1	07/07/2015 11:34	
Dibromochloromethane	ND		0.0050	1	07/07/2015 11:34	
1,2-Dibromo-3-chloropropane	ND		0.0040	1	07/07/2015 11:34	
1,2-Dibromoethane (EDB)	ND		0.0040	1	07/07/2015 11:34	
Dibromomethane	ND		0.0050	1	07/07/2015 11:34	
1,2-Dichlorobenzene	ND		0.0050	1	07/07/2015 11:34	
1,3-Dichlorobenzene	ND		0.0050	1	07/07/2015 11:34	
1,4-Dichlorobenzene	ND		0.0050	1	07/07/2015 11:34	
Dichlorodifluoromethane	ND		0.0050	1	07/07/2015 11:34	
1,1-Dichloroethane	ND		0.0050	1	07/07/2015 11:34	
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	07/07/2015 11:34	
1,1-Dichloroethene	ND		0.0050	1	07/07/2015 11:34	
cis-1,2-Dichloroethene	ND		0.0050	1	07/07/2015 11:34	
trans-1,2-Dichloroethene	ND		0.0050	1	07/07/2015 11:34	
1,2-Dichloropropane	ND		0.0050	1	07/07/2015 11:34	
1,3-Dichloropropane	ND		0.0050	1	07/07/2015 11:34	
2,2-Dichloropropane	ND		0.0050	1	07/07/2015 11:34	
1,1-Dichloropropene	ND		0.0050	1	07/07/2015 11:34	

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Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB9-2'	1507086-019A	Soil	07/02/202	15 11:40 GC18	107183
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
cis-1,3-Dichloropropene	ND		0.0050	1	07/07/2015 11:34
trans-1,3-Dichloropropene	ND		0.0050	1	07/07/2015 11:34
Diisopropyl ether (DIPE)	ND		0.0050	1	07/07/2015 11:34
Ethylbenzene	ND		0.0050	1	07/07/2015 11:34
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	07/07/2015 11:34
Freon 113	ND		0.0050	1	07/07/2015 11:34
Hexachlorobutadiene	ND		0.0050	1	07/07/2015 11:34
Hexachloroethane	ND		0.0050	1	07/07/2015 11:34
2-Hexanone	ND		0.0050	1	07/07/2015 11:34
Isopropylbenzene	ND		0.0050	1	07/07/2015 11:34
4-Isopropyl toluene	ND		0.0050	1	07/07/2015 11:34
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	07/07/2015 11:34
Methylene chloride	ND		0.0050	1	07/07/2015 11:34
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	07/07/2015 11:34
Naphthalene	ND		0.0050	1	07/07/2015 11:34
n-Propyl benzene	ND		0.0050	1	07/07/2015 11:34
Styrene	ND		0.0050	1	07/07/2015 11:34
1,1,1,2-Tetrachloroethane	ND		0.0050	1	07/07/2015 11:34
1,1,2,2-Tetrachloroethane	ND		0.0050	1	07/07/2015 11:34
Tetrachloroethene	ND		0.0050	1	07/07/2015 11:34
Toluene	ND		0.0050	1	07/07/2015 11:34
1,2,3-Trichlorobenzene	ND		0.0050	1	07/07/2015 11:34
1,2,4-Trichlorobenzene	ND		0.0050	1	07/07/2015 11:34
1,1,1-Trichloroethane	ND		0.0050	1	07/07/2015 11:34
1,1,2-Trichloroethane	ND		0.0050	1	07/07/2015 11:34
Trichloroethene	ND		0.0050	1	07/07/2015 11:34
Trichlorofluoromethane	ND		0.0050	1	07/07/2015 11:34
1,2,3-Trichloropropane	ND		0.0050	1	07/07/2015 11:34
1,2,4-Trimethylbenzene	ND		0.0050	1	07/07/2015 11:34
1,3,5-Trimethylbenzene	ND		0.0050	1	07/07/2015 11:34
Vinyl Chloride	ND		0.0050	1	07/07/2015 11:34
Xylenes, Total	ND		0.0050	1	07/07/2015 11:34



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8260B
Date Prepared:	7/2/15-7/6/15	Unit:	mg/kg

Client ID	Lab ID Matrix	Date Collected Instrument	Batch ID
SB9-2'	1507086-019A Soil	07/02/2015 11:40 GC18	107183
Analytes	<u>Result</u>	<u>RL</u> <u>DF</u>	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	Limits	
Dibromofluoromethane	110	70-130	07/07/2015 11:34
Toluene-d8	112	70-130	07/07/2015 11:34
4-BFB	115	70-130	07/07/2015 11:34
Benzene-d6	115	60-140	07/07/2015 11:34
Ethylbenzene-d10	127	60-140	07/07/2015 11:34
1,2-DCB-d4	91	60-140	07/07/2015 11:34
<u>Analyst(s):</u> KF			



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C-SIM
Date Prepared:	7/7/15	Unit:	mg/kg

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Client ID	Lab ID	Matrix	Date Col	lected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/2015	5 11:10 GC35	107269
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Acenaphthene	ND		0.050	5	07/07/2015 17:10
Acenaphthylene	ND		0.050	5	07/07/2015 17:10
Anthracene	ND		0.050	5	07/07/2015 17:10
Benzo (a) anthracene	ND		0.050	5	07/07/2015 17:10
Benzo (b) fluoranthene	ND		0.050	5	07/07/2015 17:10
Benzo (k) fluoranthene	ND		0.050	5	07/07/2015 17:10
Benzo (g,h,i) perylene	ND		0.050	5	07/07/2015 17:10
Benzo (a) pyrene	ND		0.050	5	07/07/2015 17:10
Chrysene	ND		0.050	5	07/07/2015 17:10
Dibenzo (a,h) anthracene	ND		0.050	5	07/07/2015 17:10
Fluoranthene	ND		0.050	5	07/07/2015 17:10
Fluorene	ND		0.050	5	07/07/2015 17:10
Indeno (1,2,3-cd) pyrene	ND		0.050	5	07/07/2015 17:10
1-Methylnaphthalene	ND		0.050	5	07/07/2015 17:10
2-Methylnaphthalene	ND		0.050	5	07/07/2015 17:10
Naphthalene	ND		0.050	5	07/07/2015 17:10
Phenanthrene	ND		0.050	5	07/07/2015 17:10
Pyrene	ND		0.050	5	07/07/2015 17:10
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
1-Fluoronaphthalene	81		30-130		07/07/2015 17:10
2-Fluorobiphenyl	77		30-130		07/07/2015 17:10
<u>Analyst(s):</u> HD			Analytical Comme	ents: a3	



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C
Date Prepared:	7/6/15	Unit:	mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date C	ollected	Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/20	015 13:00	GC17	107203
Analytes	<u>Result</u>		<u>RL</u>	DF		Date Analyzed
Acenaphthene	ND		0.50	2		07/07/2015 14:49
Acenaphthylene	ND		0.50	2		07/07/2015 14:49
Acetochlor	ND		0.50	2		07/07/2015 14:49
Anthracene	ND		0.50	2		07/07/2015 14:49
Benzidine	ND		2.6	2		07/07/2015 14:49
Benzo (a) anthracene	ND		0.50	2		07/07/2015 14:49
Benzo (b) fluoranthene	ND		0.50	2		07/07/2015 14:49
Benzo (k) fluoranthene	ND		0.50	2		07/07/2015 14:49
Benzo (g,h,i) perylene	ND		0.50	2		07/07/2015 14:49
Benzo (a) pyrene	ND		0.50	2		07/07/2015 14:49
Benzyl Alcohol	ND		2.6	2		07/07/2015 14:49
1,1-Biphenyl	ND		0.50	2		07/07/2015 14:49
Bis (2-chloroethoxy) Methane	ND		0.50	2		07/07/2015 14:49
Bis (2-chloroethyl) Ether	ND		0.50	2		07/07/2015 14:49
Bis (2-chloroisopropyl) Ether	ND		0.50	2		07/07/2015 14:49
Bis (2-ethylhexyl) Adipate	ND		0.50	2		07/07/2015 14:49
Bis (2-ethylhexyl) Phthalate	ND		0.50	2		07/07/2015 14:49
4-Bromophenyl Phenyl Ether	ND		0.50	2		07/07/2015 14:49
Butylbenzyl Phthalate	ND		0.50	2		07/07/2015 14:49
4-Chloroaniline	ND		1.0	2		07/07/2015 14:49
4-Chloro-3-methylphenol	ND		0.50	2		07/07/2015 14:49
2-Chloronaphthalene	ND		0.50	2		07/07/2015 14:49
2-Chlorophenol	ND		0.50	2		07/07/2015 14:49
4-Chlorophenyl Phenyl Ether	ND		0.50	2		07/07/2015 14:49
Chrysene	ND		0.50	2		07/07/2015 14:49
Dibenzo (a,h) anthracene	ND		0.50	2		07/07/2015 14:49
Dibenzofuran	ND		0.50	2		07/07/2015 14:49
Di-n-butyl Phthalate	ND		0.50	2		07/07/2015 14:49
1,2-Dichlorobenzene	ND		0.50	2		07/07/2015 14:49
1,3-Dichlorobenzene	ND		0.50	2		07/07/2015 14:49
1,4-Dichlorobenzene	ND		0.50	2		07/07/2015 14:49
3,3-Dichlorobenzidine	ND		1.0	2		07/07/2015 14:49
2,4-Dichlorophenol	ND		0.50	2		07/07/2015 14:49
Diethyl Phthalate	ND		0.50	2		07/07/2015 14:49
2,4-Dimethylphenol	ND		0.50	2		07/07/2015 14:49
Dimethyl Phthalate	ND		0.50	2		07/07/2015 14:49
4,6-Dinitro-2-methylphenol	ND		2.6	2		07/07/2015 14:49
2,4-Dinitrophenol	ND		13	2		07/07/2015 14:49

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Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C
Date Prepared:	7/6/15	Unit:	mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix	Date C	ollected Ins	trument Batch ID
SB7-2'	1507086-013A	Soil	07/02/20	015 13:00 GC	17 107203
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
2,4-Dinitrotoluene	ND		0.50	2	07/07/2015 14:49
2,6-Dinitrotoluene	ND		0.50	2	07/07/2015 14:49
Di-n-octyl Phthalate	ND		1.0	2	07/07/2015 14:49
1,2-Diphenylhydrazine	ND		0.50	2	07/07/2015 14:49
Fluoranthene	ND		0.50	2	07/07/2015 14:49
Fluorene	ND		0.50	2	07/07/2015 14:49
Hexachlorobenzene	ND		0.50	2	07/07/2015 14:49
Hexachlorobutadiene	ND		0.50	2	07/07/2015 14:49
Hexachlorocyclopentadiene	ND		2.6	2	07/07/2015 14:49
Hexachloroethane	ND		0.50	2	07/07/2015 14:49
Indeno (1,2,3-cd) pyrene	ND		0.50	2	07/07/2015 14:49
Isophorone	ND		0.50	2	07/07/2015 14:49
2-Methylnaphthalene	ND		0.50	2	07/07/2015 14:49
2-Methylphenol (o-Cresol)	ND		0.50	2	07/07/2015 14:49
3 & 4-Methylphenol (m,p-Cresol)	ND		0.50	2	07/07/2015 14:49
Naphthalene	ND		0.50	2	07/07/2015 14:49
2-Nitroaniline	ND		2.6	2	07/07/2015 14:49
3-Nitroaniline	ND		2.6	2	07/07/2015 14:49
4-Nitroaniline	ND		2.6	2	07/07/2015 14:49
Nitrobenzene	ND		0.50	2	07/07/2015 14:49
2-Nitrophenol	ND		2.6	2	07/07/2015 14:49
4-Nitrophenol	ND		2.6	2	07/07/2015 14:49
N-Nitrosodiphenylamine	ND		0.50	2	07/07/2015 14:49
N-Nitrosodi-n-propylamine	ND		0.50	2	07/07/2015 14:49
Pentachlorophenol	ND		2.6	2	07/07/2015 14:49
Phenanthrene	ND		0.50	2	07/07/2015 14:49
Phenol	ND		0.50	2	07/07/2015 14:49
Pyrene	ND		0.50	2	07/07/2015 14:49
1,2,4-Trichlorobenzene	ND		0.50	2	07/07/2015 14:49
2,4,5-Trichlorophenol	ND		0.50	2	07/07/2015 14:49
2,4,6-Trichlorophenol	ND		0.50	2	07/07/2015 14:49



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8270C
Date Prepared:	7/6/15	Unit:	mg/Kg

Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID Ma	trix Date Collected Instrument	Batch ID
SB7-2'	1507086-013A Soi	I 07/02/2015 13:00 GC17	107203
Analytes	<u>Result</u>	<u>RL</u> <u>DF</u>	Date Analyzed
Surrogates	<u>REC (%)</u>	Limits	
2-Fluorophenol	92	30-130	07/07/2015 14:49
Phenol-d5	96	30-130	07/07/2015 14:49
Nitrobenzene-d5	80	30-130	07/07/2015 14:49
2-Fluorobiphenyl	82	30-130	07/07/2015 14:49
2,4,6-Tribromophenol	59	16-130	07/07/2015 14:49
4-Terphenyl-d14	93	30-130	07/07/2015 14:49
<u>Analyst(s):</u> HK		Analytical Comments: a3	



Client:	Applied Remedial Services, Inc.
Project:	94th & International
Date Received:	7/2/15 17:52
Date Prepared:	7/6/15

WorkOrder:	1507086
Extraction Method:	SW3050B
Analytical Method:	SW6020
Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	llected Instrume	nt Batch ID
SB1-2'	1507086-001A	Soil	07/02/201	5 09:45 ICP-MS2	107185
Analytes	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Antimony	3.3		0.50	1	07/06/2015 16:08
Arsenic	14		0.50	1	07/06/2015 16:08
Barium	530		5.0	1	07/06/2015 16:08
Beryllium	ND		0.50	1	07/06/2015 16:08
Cadmium	1.9		0.25	1	07/06/2015 16:08
Chromium	53		0.50	1	07/06/2015 16:08
Cobalt	10		0.50	1	07/06/2015 16:08
Copper	83		0.50	1	07/06/2015 16:08
Lead	940		5.0	10	07/06/2015 16:51
Mercury	0.47		0.050	1	07/06/2015 16:08
Molybdenum	0.52		0.50	1	07/06/2015 16:08
Nickel	45		0.50	1	07/06/2015 16:08
Selenium	ND		0.50	1	07/06/2015 16:08
Silver	0.56		0.50	1	07/06/2015 16:08
Thallium	ND		0.50	1	07/06/2015 16:08
Vanadium	53		0.50	1	07/06/2015 16:08
Zinc	930		5.0	1	07/06/2015 16:08
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Terbium	101		70-130		07/06/2015 16:08
<u>Analyst(s):</u> DVH					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 09:45 GC19	107187
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/07/2015 13:31
MTBE			0.050 1	07/07/2015 13:31
Benzene			0.0050 1	07/07/2015 13:31
Toluene			0.0050 1	07/07/2015 13:31
Ethylbenzene			0.0050 1	07/07/2015 13:31
Xylenes			0.0050 1	07/07/2015 13:31
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
2-Fluorotoluene	97		70-130	07/07/2015 13:31
Analyst(s): IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB1-6'	Lab ID 1507086-002A	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19	Batch ID
Client ID SB1-6' Analytes	Lab ID 1507086-002A <u>Result</u>	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE	Batch ID 107144 Date Analyzed
Client ID SB1-6' Analytes TPH(g)	Lab ID 1507086-002A <u>Result</u> ND	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE	Lab ID 1507086-002A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 1.0 1 0.050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-002A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 1.0 1 0.050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-002A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 100 1.0 1 100 0.050 1 100 0.0050 1 100 0.0050 1 100	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-002A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 10 1.0 1 10 0.050 1 10 0.0050 1 10 0.0050 1 10 0.0050 1 10 0.0050 1 10	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-002A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 1.0 1 1.0 1 1 1 0.050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-002A Result ND REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 100 100 1.0 1 100 100 0.050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 Limits Limits 100 100	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28
Client ID SB1-6' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-002A Result ND REC (%) 107	Matrix Soil	Date Collected Instrument 07/02/2015 09:50 GC19 RL DE 100 100 1.0 1 100 100 0.050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 0.0050 1 100 100 10.0050 1 100 100 10.0050 1 100 100 10.0050 1 100 100 10.0050 1 100 100 10.0050 1 100 100	Batch ID 107144 Date Analyzed 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28 07/03/2015 15:28





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB1-10'	1507086-003A	Soil	07/02/2015 09:55 GC19	107144
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/03/2015 15:59
MTBE			0.050 1	07/03/2015 15:59
Benzene			0.0050 1	07/03/2015 15:59
Toluene			0.0050 1	07/03/2015 15:59
Ethylbenzene			0.0050 1	07/03/2015 15:59
Xylenes			0.0050 1	07/03/2015 15:59
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
2-Fluorotoluene	104		70-130	07/03/2015 15:59
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB2-2'	Lab ID 1507086-004A	Matrix Soil	Date Collected Instrument 07/02/2015 10:20 GC19	Batch ID 107144
Client ID SB2-2' Analytes	Lab ID 1507086-004A <u>Result</u>	Matrix Soil	Date Collected Instrument 07/02/2015 10:20 GC19 RL DE	Batch ID 107144 Date Analyzed
Client ID SB2-2' Analytes TPH(g)	Lab ID 1507086-004A <u>Result</u> 3.2	Matrix Soil	Date Collected Instrument 07/02/2015 10:20 GC19 RL DE 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE	Lab ID 1507086-004A <u>Result</u> 3.2 	Matrix Soil	Date Collected Instrument 07/02/2015 10:20 GC19 RL DE 1.0 1 0.050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' <u>Analytes</u> TPH(g) MTBE Benzene	Lab ID 1507086-004A Result 3.2 	Matrix Soil	Date Collected Instrument 07/02/2015 020 RL DE 1.0 1 0.050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-004A Result 3.2 	Matrix Soil	Date Collected Instrument 07/02/2015 0 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-004A Result 3.2 	Matrix Soil	Date Collected Instrument 07/02/2015 0.020 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-004A Result 3.2 	Matrix Soil	Date Collected Instrument 07/02/2015 6C19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-004A Result 3.2 REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 0 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30
Client ID SB2-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-004A Result 3.2 REC (%) 98	Matrix Soil	Date Collected Instrument 07/02/2015 0 0C19 RL DE 1 1.0 1 1 0.050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 0.0050 1 1 1.00050 1 1	Batch ID 107144 Date Analyzed 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30 07/03/2015 16:30





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB2-6'	1507086-005A	Soil	07/02/2015 10:25 GC19	107144
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/03/2015 17:01
MTBE			0.050 1	07/03/2015 17:01
Benzene			0.0050 1	07/03/2015 17:01
Toluene			0.0050 1	07/03/2015 17:01
Ethylbenzene			0.0050 1	07/03/2015 17:01
Xylenes			0.0050 1	07/03/2015 17:01
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
2-Fluorotoluene	107		70-130	07/03/2015 17:01
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB3-2'	Lab ID 1507086-007A	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19	Batch ID 107144
Client ID SB3-2' Analytes	Lab ID 1507086-007A <u>Result</u>	Matrix Soil	Date CollectedInstrument07/02/2015 11:10GC19RLDE	Batch ID 107144 Date Analyzed
Client ID SB3-2' Analytes TPH(g)	Lab ID 1507086-007A <u>Result</u> ND	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE	Lab ID 1507086-007A <u>Result</u> ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-007A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-007A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-007A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-007A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-007A Result ND REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32
Client ID SB3-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-007A Result ND REC (%) 101	Matrix Soil	Date Collected Instrument 07/02/2015 11:10 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32 07/03/2015 17:32





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB3-6'	1507086-008A	Soil	07/02/2015 11:15 GC7	107144
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/06/2015 16:20
MTBE			0.050 1	07/06/2015 16:20
Benzene			0.0050 1	07/06/2015 16:20
Toluene			0.0050 1	07/06/2015 16:20
Ethylbenzene			0.0050 1	07/06/2015 16:20
Xylenes			0.0050 1	07/06/2015 16:20
Surrogates	<u>REC (%)</u>		Limits	
2-Fluorotoluene	97		70-130	07/06/2015 16:20
Analyst(s): IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB5-2'	Lab ID 1507086-010A	Matrix Soil	Date Collected Instrument 07/02/2015 13:40 GC19	Batch ID 107144
Client ID SB5-2' Analytes	Lab ID 1507086-010A <u>Result</u>	Matrix Soil	Date Collected Instrument 07/02/2015 13:40 GC19 RL DE	Batch ID 107144 Date Analyzed
Client ID SB5-2' Analytes TPH(g)	Lab ID 1507086-010A Result ND	Matrix Soil	Date Collected Instrument 07/02/2015 13:40 GC19 RL DF 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36
Client ID SB5-2' <u>Analytes</u> TPH(g) MTBE	Lab ID 1507086-010A <u>Result</u> ND 	Matrix Soil	Date Collected Instrument 07/02/2015 13:40 GC19 RL DF 1.0 1 0.050 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-010A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 3:40 GC19 RL DF 1.0 1 0.050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-010A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 3:40 GC19 RL DF 1.0 1 1.0 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-010A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 3:40 GC19 RL DE 1.0 1 1.0 1 1 0.0050 1 0.0050 1 1 1 0.0050 1 1 0.0050 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 </td <td>Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36</td>	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-010A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 400 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-010A Result ND REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 3:40 GC19 RL DF 1.0 1.0 1 1.0 0.050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0 0.0050 1 1.0	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36
Client ID SB5-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-010A Result ND REC (%) 102	Matrix Soil	Date Collected Instrument 07/02/2015 3:40 GC19 RL DF 1.0 1.0 1 - 0.050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 0.0050 1 - 1.00050 1 - 0.0050 1 - 0.0050 1 - 1.00050 1 - 1.00050 1 - 1.00050 1 - 1.00050 1 - 1.00050 1 - 1.00050 1 - 1	Batch ID 107144 Date Analyzed 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36 07/03/2015 19:36





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Col	lected Instrument	Batch ID
SB5-6'	1507086-011A	Soil	07/02/2015	513:45 GC19	107144
Analytes	Result		<u>RL</u>	DF	Date Analyzed
TPH(g)	ND		1.0	1	07/03/2015 20:06
MTBE			0.050	1	07/03/2015 20:06
Benzene			0.0050	1	07/03/2015 20:06
Toluene			0.0050	1	07/03/2015 20:06
Ethylbenzene			0.0050	1	07/03/2015 20:06
Xylenes			0.0050	1	07/03/2015 20:06
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	104		70-130		07/03/2015 20:06
<u>Analyst(s):</u> IA					
Client ID	Lab ID	Matrix	Date Col	lected Instrument	Batch ID
Client ID SB7-2'	Lab ID 1507086-013A	Matrix Soil	Date Col 07/02/2015	lected Instrument 5 13:00 GC19	Batch ID 107144
Client ID SB7-2' Analytes	Lab ID 1507086-013A <u>Result</u>	Matrix Soil	Date Coll 07/02/2015 <u>RL</u>	ected Instrument i 13:00 GC19 DE	Batch ID 107144 Date Analyzed
Client ID SB7-2' <u>Analytes</u> TPH(g)	Lab ID 1507086-013A <u>Result</u> ND	Matrix Soil	Date Coll 07/02/2015 RL 1.0	ected Instrument 13:00 GC19 DE 1	Batch ID 107144 Date Analyzed 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE	Lab ID 1507086-013A <u>Result</u> ND 	Matrix Soil	Date Coll 07/02/2015 <u>RL</u> 1.0 0.050	lectedInstrument13:00GC19DF111	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-013A Result ND 	Matrix Soil	Date Coll 07/02/2015 RL 1.0 0.050 0.0050	lectedInstrument13:00GC19DF11111	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-013A Result ND 	Matrix Soil	Date Coll 07/02/2015 RL 1.0 0.050 0.0050 0.0050	lectedInstrument13:00GC19DE111111111	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-013A Result ND 	Matrix Soil	Date Coll 07/02/2015 RL 1.0 0.050 0.0050 0.0050 0.0050 0.0050	lected Instrument 13:00 GC19 DE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-013A Result ND 	Matrix Soil	Bate Coll 07/02/2015 RL 1.0 0.050 0.0050 0.0050 0.0050 0.0050 0.0050	lected Instrument 5 13:00 GC19 DF	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-013A Result ND REC (%)	Matrix Soil	Bate Coll 07/02/2015 RL 1.0 0.050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 Limits	lected Instrument 13:00 GC19 DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36
Client ID SB7-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-013A Result ND REC (%) 109	Matrix Soil	Bate Coll 07/02/2015 RL 1.0 0.050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050	Instrument 13:00 GC19 DE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36 07/03/2015 20:36





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB7-6'	1507086-014A	Soil	07/02/2015 13:05 GC19	107144
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/03/2015 21:07
MTBE			0.050 1	07/03/2015 21:07
Benzene			0.0050 1	07/03/2015 21:07
Toluene			0.0050 1	07/03/2015 21:07
Ethylbenzene			0.0050 1	07/03/2015 21:07
Xylenes			0.0050 1	07/03/2015 21:07
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
2-Fluorotoluene	106		70-130	07/03/2015 21:07
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB8-2'	Lab ID 1507086-016A	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19	Batch ID 107144
Client ID SB8-2' Analytes	Lab ID 1507086-016A <u>Result</u>	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DF	Batch ID 107144 Date Analyzed
Client ID SB8-2' Analytes TPH(g)	Lab ID 1507086-016A Result ND	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DE 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE	Lab ID 1507086-016A <u>Result</u> ND 	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DE 1.0 1 0.050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-016A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DF 1.0 1 0.050 1 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-016A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DF 1.0 1.0 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-016A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DF 1.0 1.0 1 0.0050 1 0.0050 1 1 0.0050 0.0050 1 0.0050 1 0.0050 1 1 1 0.0050 1 1 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-016A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DE 1.0 1 0.050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1 0.0050 1 1 1	Datch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-016A Result ND REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits	Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37
Client ID SB8-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-016A Result ND REC (%) 104	Matrix Soil	Date Collected Instrument 07/02/2015 10:45 GC19 RL DE 100 1.0 1 100 0.050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1 100 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37 07/03/2015 21:37





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB8-6'	1507086-017A	Soil	07/02/2015 10:50 GC19	107144
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/03/2015 22:37
MTBE			0.050 1	07/03/2015 22:37
Benzene			0.0050 1	07/03/2015 22:37
Toluene			0.0050 1	07/03/2015 22:37
Ethylbenzene			0.0050 1	07/03/2015 22:37
Xylenes			0.0050 1	07/03/2015 22:37
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
2-Fluorotoluene	108		70-130	07/03/2015 22:37
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
Client ID SB9-2'	Lab ID 1507086-019A	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19	Batch ID 107144
Client ID SB9-2' Analytes	Lab ID 1507086-019A <u>Result</u>	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DE	Batch ID 107144 Date Analyzed
Client ID SB9-2' Analytes TPH(g)	Lab ID 1507086-019A <u>Result</u> ND	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DF 1.0 1	Batch ID 107144 Date Analyzed 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE	Lab ID 1507086-019A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DE 1.0 1 0.050 1	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene	Lab ID 1507086-019A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL<	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene Toluene	Lab ID 1507086-019A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1507086-019A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1507086-019A Result ND 	Matrix Soil	Date Collected Instrument 07/02/2011 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1507086-019A Result ND REC (%)	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits Limits	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07
Client ID SB9-2' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1507086-019A Result ND REC (%) 103	Matrix Soil	Date Collected Instrument 07/02/2015 11:40 GC19 RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits 70-130	Batch ID 107144 Date Analyzed 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07 07/03/2015 23:07





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW5030B
Date Received:	7/2/15 17:52	Analytical Method:	SW8021B/8015Bm
Date Prepared:	7/2/15-7/6/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB9-6'	1507086-020A	Soil	07/02/2015 11:45 GC19	107144
Analytes	<u>Result</u>		<u>RL DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	07/04/2015 00:07
MTBE			0.050 1	07/04/2015 00:07
Benzene			0.0050 1	07/04/2015 00:07
Toluene			0.0050 1	07/04/2015 00:07
Ethylbenzene			0.0050 1	07/04/2015 00:07
Xylenes			0.0050 1	07/04/2015 00:07
Surrogates	<u>REC (%)</u>		Limits	
2-Fluorotoluene	104		70-130	07/04/2015 00:07
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB9-10'	1507086-021A	Soil	07/02/2015 11:50 GC19	107144
SB9-10' Analytes	1507086-021A <u>Result</u>	Soil	07/02/2015 11:50 GC19 RL DF	107144 Date Analyzed
SB9-10' Analytes TPH(g)	1507086-021A <u>Result</u> ND	Soil	07/02/2015 11:50 GC19 <u>RL DF</u> 1.0 1	107144 Date Analyzed 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE	1507086-021A <u>Result</u> ND 	Soil	07/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1	107144 Date Analyzed 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene	1507086-021A <u>Result</u> ND 	Soil	07/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene Toluene	1507086-021A <u>Result</u> ND 	Soil	07/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	1507086-021A <u>Result</u> ND 	Soil	07/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	1507086-021A Result ND 	Soil	07/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	1507086-021A <u>Result</u> ND REC (%)	Soil	O7/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37
SB9-10' Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	1507086-021A <u>Result</u> ND <u></u> <u>REC (%)</u> 106	Soil	NOT/02/2015 11:50 GC19 RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits 70-130	107144 <u>Date Analyzed</u> 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37 07/04/2015 00:37



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3050B
Date Received:	7/2/15 17:52	Analytical Method:	SW6010B
Date Prepared:	7/2/15	Unit:	mg/Kg

Lead

	LID	Matala	Dete Cel	1	Tendenser	D-4-k ID
		Matrix	Date Col		Instrument	Batch ID
SB1-6'	1507086-002A	Soil	07/02/201	5 09:50	ICP-JY	107111
Analytes	Result		<u>RL</u>	<u>DF</u>		Date Analyzed
Lead	9.6		5.0	1		07/06/2015 14:47
Surrogates	<u>REC (%)</u>		<u>Limits</u>			
Tb 350.917	98		70-130			07/06/2015 14:47
<u>Analyst(s):</u> BBO						
Client ID	Lab ID	Matrix	Date Col	llected	Instrument	Batch ID
SB1-10'	1507086-003A	Soil	07/02/201	5 09:55	ICP-JY	107111
Analytes	Result		<u>RL</u>	<u>DF</u>		Date Analyzed
Lead	8.7		5.0	1		07/06/2015 16:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Tb 350.917	97		70-130			07/06/2015 16:13
<u>Analyst(s):</u> BBO						
Client ID	Lab ID	Matrix	Date Col	llected	Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/201	5 10:20	ICP-JY	107146
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>		Date Analyzed
Lead	950		5.0	1		07/06/2015 16:15
Surrogates	<u>REC (%)</u>		Limits			
Tb 350.917	99		70-130			07/06/2015 16:15
Analyst(s): BBO						

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB2-6'	1507086-005A	Soil	07/02/20	15 10:25 ICP-JY	107146
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Lead	9.7		5.0	1	07/06/2015 16:18
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	101		70-130		07/06/2015 16:18
<u>Analyst(s):</u> BBO					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3050B
Date Received:	7/2/15 17:52	Analytical Method:	SW6010B
Date Prepared:	7/2/15	Unit:	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/2015 11:10 ICP-JY	107146
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	220		5.0 1	07/06/2015 16:20
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
Tb 350.917	97		70-130	07/06/2015 16:20
<u>Analyst(s):</u> BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB3-6'	1507086-008A	Soil	07/02/2015 11:15 ICP-JY	107146
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	12		5.0 1	07/06/2015 16:23
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	94		70-130	07/06/2015 16:23
<u>Analyst(s):</u> BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB5-2'	1507086-010A	Soil	07/02/2015 13:40 ICP-JY	107146
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	200		5.0 1	07/06/2015 16:25
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	95		70-130	07/06/2015 16:25
<u>Analyst(s):</u> BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB5-6'	1507086-011A	Soil	07/02/2015 13:45 ICP-JY	107146
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	12		5.0 1	07/06/2015 16:28
Surrogates	<u>REC (%)</u>		Limits	

70-130

Tb 350.917 Analyst(s): BBO

98



07/06/2015 16:28



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3050B
Date Received:	7/2/15 17:52	Analytical Method:	SW6010B
Date Prepared:	7/2/15	Unit:	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/2015 13:00 ICP-JY	107146
Analytes	<u>Result</u>		<u>RL DF</u>	Date Analyzed
Lead	90		5.0 1	07/06/2015 16:30
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	101		70-130	07/06/2015 16:30
<u>Analyst(s):</u> BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB7-6'	1507086-014A	Soil	07/02/2015 13:05 ICP-JY	107146
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	11		5.0 1	07/06/2015 16:37
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	99		70-130	07/06/2015 16:37
Analyst(s): BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/2015 10:45 ICP-JY	107146

Analytes	Result		RL	DF	Date Analyzed
Lead	120		5.0	1	07/06/2015 16:40
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	100		70-130		07/06/2015 16:40
<u>Analyst(s):</u> BBO					
Client ID	Lab ID	Matrix	Date C	ollected Instrument	Batch ID
SB8-6'	1507086-017A	Soil	07/02/20	015 10:50 ICP-JY	107146
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Lead	15		5.0	1	07/10/2015 14:41

Limits

70-130

<u>REC (%)</u>

102

<u>Surrogates</u> Tb 350.917 <u>Analyst(s):</u> DB

07/10/2015 14:41



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3050B
Date Received:	7/2/15 17:52	Analytical Method:	SW6010B
Date Prepared:	7/2/15	Unit:	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB9-2'	1507086-019A	Soil	07/02/2015 11:40 ICP-JY	107146
Analytes	Result		<u>RL DF</u>	Date Analyzed
Lead	60		17 1	07/10/2015 14:44
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	100		70-130	07/10/2015 14:44
<u>Analyst(s):</u> DB				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB9-6'	1507086-020A	Soil	07/02/2015 11:45 ICP-JY	107146
Analytes	<u>Result</u>		<u>RL DF</u>	Date Analyzed
Lead	9.3		5.0 1	07/06/2015 16:42
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	102		70-130	07/06/2015 16:42
Analyst(s): BBO				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB9-10'	1507086-021A	Soil	07/02/2015 11:50 ICP-JY	107146
Analytes	Result		RL DF	Date Analyzed
Lead	8.4		5.0 1	07/06/2015 12:39
Surrogates	<u>REC (%)</u>		Limits	
Tb 350.917	106		70-130	07/06/2015 12:39
Analyst(s): BBO				



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 09:45	GC2B	107129
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	19		10 10		07/03/2015 07:06
TPH-Motor Oil (C18-C36)	140		50 10		07/03/2015 07:06
Surrogates	<u>REC (%)</u>		Limits		
C9	73		70-130		07/03/2015 07:06
<u>Analyst(s):</u> TK			Analytical Comments: e7	7,e2	
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB1-6'	1507086-002A	Soil	07/02/2015 09:50	GC11A	107129
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 06:53
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 06:53
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	94		70-130		07/03/2015 06:53
Analyst(s): TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB1-10'	1507086-003A	Soil	07/02/2015 09:55	GC2A	107129
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 02:05
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 02:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	87		70-130		07/03/2015 02:05
<u>Analyst(s):</u> TK					


Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected Instrume	ent Batch ID
SB2-2'	1507086-004A	Soil	07/02/2015 10:20 GC2B	107129
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH-Diesel (C10-C23)	51		20 20	07/06/2015 13:17
TPH-Motor Oil (C18-C36)	560		100 20	07/06/2015 13:17
Surrogates	<u>REC (%)</u>		Limits	
C9	75		70-130	07/06/2015 13:17
<u>Analyst(s):</u> TK			Analytical Comments: e7,e2	
Client ID	Lab ID	Matrix	Date Collected Instrume	ent Batch ID
SB2-6'	1507086-005A	Soil	07/02/2015 10:25 GC6A	107129
Analytes	Result		<u>RL</u> DF	Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1	07/03/2015 07:44
TPH-Motor Oil (C18-C36)	ND		5.0 1	07/03/2015 07:44
Surrogates	<u>REC (%)</u>		Limits	
C9	97		70-130	07/03/2015 07:44
Analyst(s): TK				
Client ID	Lab ID	Matrix	Date Collected Instrume	ent Batch ID
SB3-2'	1507086-007A	Soil	07/02/2015 11:10 GC11B	107129
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
TPH-Diesel (C10-C23)	3.5		2.0 2	07/06/2015 11:54
TPH-Motor Oil (C18-C36)	41		10 2	07/06/2015 11:54
<u>Surrogates</u>	<u>REC (%)</u>		Limits	
C9	98		70-130	07/06/2015 11:54
<u>Analyst(s):</u> TK			Analytical Comments: e7,e2	





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collecte	d Instrument	Batch ID
SB3-6'	1507086-008A	Soil	07/02/2015 11:1	5 GC2A	107129
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 04:35
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 04:35
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	87		70-130		07/03/2015 04:35
<u>Analyst(s):</u> TK					
Client ID	Lab ID	Matrix	Date Collecte	d Instrument	Batch ID
SB5-2'	1507086-010A	Soil	07/02/2015 13:4	0 GC2A	107129
Analytes	<u>Result</u>		<u>RL</u> DF		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 07:06
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 07:06
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	87		70-130		07/03/2015 07:06
Analyst(s): TK					
Client ID	Lab ID	Matrix	Date Collecte	d Instrument	Batch ID
SB5-6'	1507086-011A	Soil	07/02/2015 13:4	5 GC2A	107129
Analytes	Result		<u>RL</u> DF		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 09:36
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 09:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	87		70-130		07/03/2015 09:36
<u>Analyst(s):</u> TK					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/2015 13:00	GC11B	107129
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	1.4		1.0 1		07/03/2015 01:10
TPH-Motor Oil (C18-C36)	17		5.0 1		07/03/2015 01:10
Surrogates	<u>REC (%)</u>		Limits		
C9	101		70-130		07/03/2015 01:10
<u>Analyst(s):</u> TK			Analytical Comments: e	7,e2	
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB7-6'	1507086-014A	Soil	07/02/2015 13:05	GC6A	107129
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 18:40
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 18:40
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		07/03/2015 18:40
Analyst(s): TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/2015 10:45	GC6B	107129
Analytes	Result		<u>RL DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	2.0		1.0 1		07/03/2015 07:44
TPH-Motor Oil (C18-C36)	70		5.0 1		07/03/2015 07:44
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	83		70-130		07/03/2015 07:44
<u>Analyst(s):</u> TK			Analytical Comments: e	7,e2	



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB8-6'	1507086-017A	Soil	07/02/2015 10:50	GC11B	107129
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 05:44
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 05:44
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		07/03/2015 05:44
<u>Analyst(s):</u> TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB9-2'	1507086-019A	Soil	07/02/2015 11:40	GC11B	107129
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 08:01
TPH-Motor Oil (C18-C36)	15		5.0 1		07/03/2015 08:01
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	99		70-130		07/03/2015 08:01
Analyst(s): TK			Analytical Comments:	27	
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB9-6'	1507086-020A	Soil	07/02/2015 11:45	GC11B	107129
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		07/03/2015 03:27
TPH-Motor Oil (C18-C36)	ND		5.0 1		07/03/2015 03:27
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	101		70-130		07/03/2015 03:27
<u>Analyst(s):</u> TK					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Project:	94th & International	Extraction Method:	SW3550B
Date Received:	7/2/15 17:52	Analytical Method:	SW8015B
Date Prepared:	7/2/15	Unit:	mg/Kg

Client ID	Lab ID	Matrix	Date C	ollected Instrument	Batch ID
SB9-10'	1507086-021A	Soil	07/02/20	015 11:50 GC2A	107129
Analytes	Result		<u>RL</u>	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0	1	07/02/2015 22:20
TPH-Motor Oil (C18-C36)	ND		5.0	1	07/02/2015 22:20
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	89		70-130		07/02/2015 22:20
Analyst(s): TK					





Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107113
Date Analyzed:	7/2/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A/8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107113 1507041-004AMS/MSD

QC Summary Report for SW8081A/8082							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0424	0.0010	0.050	-	85	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0465	0.0010	0.050	-	93	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0360	0.0010	0.050	-	72	70-130
Dieldrin	ND	0.0540	0.0010	0.050	-	108	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0455	0.0010	0.050	-	91	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0445	0.0010	0.050	-	89	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0541	0.0519		0.050	108	104	70-130

QA/QC Officer Page 44 of 81



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107113
Date Analyzed:	7/2/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A/8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107113 1507041-004AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	NR	NR		ND<0.002	NR	NR	-	NR	
g-BHC	NR	NR		ND<0.002	NR	NR	-	NR	
p,p-DDT	NR	NR		ND<0.002	NR	NR	-	NR	
Dieldrin	NR	NR		ND<0.002	NR	NR	-	NR	
Endrin	NR	NR		ND<0.002	NR	NR	-	NR	
Heptachlor	NR	NR		ND<0.002	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	

_____QA/QC Officer Page 45 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107184
Date Analyzed:	7/7/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A/8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107184 1507086-001AMS/MSD

	QC Summary Report for SW8081A/8082						
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0384	0.0010	0.050	-	77	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0430	0.0010	0.050	-	86	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0477	0.0010	0.050	-	95	70-130
Dieldrin	ND	0.0518	0.0010	0.050	-	103	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0522	0.0010	0.050	-	104	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0424	0.0010	0.050	-	85	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0480	0.0544		0.050	96	109	70-130

QA/QC Officer Page 46 of 81



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107184
Date Analyzed:	7/7/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A/8082
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107184 1507086-001AMS/MSD

QC Summary Report for SW8081A/8082

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	NR	NR		ND<0.01	NR	NR	-	NR	
g-BHC	NR	NR		ND<0.01	NR	NR	-	NR	
p,p-DDT	NR	NR		ND<0.01	NR	NR	-	NR	
Dieldrin	NR	NR		ND<0.01	NR	NR	-	NR	
Endrin	NR	NR		ND<0.01	NR	NR	-	NR	
Heptachlor	NR	NR		ND<0.01	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	

_____QA/QC Officer Page 47 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107113
Date Analyzed:	7/2/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107113 1507041-004AMS/MSD

QC Summary Report for SW8081A							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0424	0.0010	0.050	-	85	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0465	0.0010	0.050	-	93	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0360	0.0010	0.050	-	72	70-130
Dieldrin	ND	0.0540	0.0010	0.050	-	108	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0455	0.0010	0.050	-	91	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0445	0.0010	0.050	-	89	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
PCBs, total	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0541	0.0519		0.050	108	104	70-130

_____QA/QC Officer Page 48 of 81



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107113
Date Analyzed:	7/2/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107113 1507041-004AMS/MSD

QC Summary Report for SW8081A

			-						
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	NR	NR		ND<0.002	NR	NR	-	NR	
g-BHC	NR	NR		ND<0.002	NR	NR	-	NR	
p,p-DDT	NR	NR		ND<0.002	NR	NR	-	NR	
Dieldrin	NR	NR		ND<0.002	NR	NR	-	NR	
Endrin	NR	NR		ND<0.002	NR	NR	-	NR	
Heptachlor	NR	NR		ND<0.002	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	

_____QA/QC Officer Page 49 of 81



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107108
Date Analyzed:	7/2/15	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107108 1507041-003AMS/MSD

QC Summary Report for SW8260B							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	_	_	-	_
tert-Amyl methyl ether (TAME)	ND	0.0392	0.0050	0.050	-	78	53-116
Benzene	ND	0.0483	0.0050	0.050	-	97	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.157	0.050	0.20	-	78	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0470	0.0050	0.050	-	94	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0442	0.0040	0.050	-	88	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0468	0.0040	0.050	-	94	58-135
1,1-Dichloroethene	ND	0.0484	0.0050	0.050	-	97	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107108
Date Analyzed:	7/2/15	Extraction Method:	SW5030B
Instrument:	GC16	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107108 1507041-003AMS/MSD

QC Summary Report for SW8260B MB LCS RL SPK MB SS LCS LCS Analyte Result Result Val %REC %REC Limits Diisopropyl ether (DIPE) ND 0.0434 0.0050 0.050 87 52-129 _ Ethylbenzene ND 0.0050 _ _ Ethyl tert-butyl ether (ETBE) ND 0.0420 0.0050 0.050 53-125 _ 84 Freon 113 ND 0.0050 _ ND 0.0050 Hexachlorobutadiene _ -_ _ Hexachloroethane ND 0.0050 --_ _ _ 2-Hexanone ND -0.0050 ----Isopropylbenzene ND 0.0050 _ _ _ _ _ 4-Isopropyl toluene ND 0.0050 _ _ 0.050 Methyl-t-butyl ether (MTBE) ND 0.0405 0.0050 81 58-122 -Methylene chloride ND -0.0050 -_ _ _ ND 0.0050 4-Methyl-2-pentanone (MIBK) -_ _ _ _ Naphthalene ND 0.0050 _ _ _ _ _ n-Propyl benzene ND 0.0050 --_ _ -Styrene ND _ 0.0050 _ _ _ _ 1,1,1,2-Tetrachloroethane ND 0.0050 _ _ _ _ _ 1,1,2,2-Tetrachloroethane ND 0.0050 ---_ -Tetrachloroethene ND 0.0050 -_ Toluene ND 0.0524 0.0050 0.050 105 76-130 _ 1,2,3-Trichlorobenzene ND 0.0050 ND 0.0050 1,2,4-Trichlorobenzene -_ _ _ _ ND 0.0050 1,1,1-Trichloroethane _ _ _ _ _ 1,1,2-Trichloroethane ND 0.0050 _ _ _ Trichloroethene ND 0.0480 0.0050 0.050 96 72-132 _ Trichlorofluoromethane ND _ 0.0050 -_ _ _ 1,2,3-Trichloropropane ND _ 0.0050 _ _ _ _ 1,2,4-Trimethylbenzene ND 0.0050 _ _ _ _ 1,3,5-Trimethylbenzene ND 0.0050 _ --_ _ Vinyl Chloride ND 0.0050 _ _ _ _ _ ND Xylenes, Total 0.0050 _ _ _ _ _ Surrogate Recovery Dibromofluoromethane 0.120 0.124 0.12 96 99 70-130 Toluene-d8 0.132 0.131 0.12 106 105 70-130 4-BFB 0.0129 0.0134 0.012 103 107 70-130 0.0921 0.0966 0.10 97 60-140 Benzene-d6 92 Ethylbenzene-d10 0.0980 0.107 0.10 98 107 60-140

0.0758

0.0811

1,2-DCB-d4

A _____QA/QC Officer Page 51 of 81

60-140

0.10

76

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Client:	Applied Remedial Services, Inc.
Date Prepared:	7/2/15
Date Analyzed:	7/2/15
Instrument:	GC16
Matrix:	Soil
Project:	94th & International

	1507006
WorkOrder:	150/086
BatchID:	107108
Extraction Method:	SW5030B
Analytical Method:	SW8260B
Unit:	mg/Kg
Sample ID:	MB/LCS-107108
-	1507041-003AMS/MSD

QC Summary Report for SW8260B									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0489	0.0458	0.050	ND	98	92	70-130	6.44	20
Benzene	0.0475	0.0444	0.050	ND	95	89	70-130	6.72	20
t-Butyl alcohol (TBA)	0.190	0.169	0.20	ND	95	84	70-130	12.0	20
Chlorobenzene	0.0476	0.0444	0.050	ND	95	89	70-130	6.96	20
1,2-Dibromoethane (EDB)	0.0442	0.0421	0.050	ND	88	84	70-130	4.75	20
1,2-Dichloroethane (1,2-DCA)	0.0497	0.0476	0.050	ND	99	95	70-130	4.15	20
1,1-Dichloroethene	0.0428	0.0407	0.050	ND	86	81	70-130	4.86	20
Diisopropyl ether (DIPE)	0.0534	0.0501	0.050	ND	107	100	70-130	6.39	20
Ethyl tert-butyl ether (ETBE)	0.0513	0.0479	0.050	ND	103	96	70-130	6.93	20
Methyl-t-butyl ether (MTBE)	0.0486	0.0456	0.050	ND	97	91	70-130	6.43	20
Toluene	0.0456	0.0426	0.050	ND	91	85	70-130	6.78	20
Trichloroethene	0.0428	0.0398	0.050	ND	86	80	70-130	7.21	20
Surrogate Recovery									
Dibromofluoromethane	0.138	0.140	0.12		110	112	70-130	1.17	20
Toluene-d8	0.142	0.140	0.12		113	112	70-130	1.07	20
4-BFB	0.0145	0.0144	0.012		116	115	70-130	0.972	20
Benzene-d6	0.112	0.105	0.10		112	105	60-140	6.20	20
Ethylbenzene-d10	0.126	0.113	0.10		126	113	60-140	11.0	20
1,2-DCB-d4	0.0929	0.0896	0.10		93	90	60-140	3.63	20



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107183
Date Analyzed:	7/7/15	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107183 1507086-019AMS/MSD

QC Summary Report for SW8260B							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	_	_	-	_
tert-Amyl methyl ether (TAME)	ND	0.0378	0.0050	0.050	-	76	53-116
Benzene	ND	0.0496	0.0050	0.050	-	99	63-137
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.171	0.050	0.20	-	86	41-135
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0468	0.0050	0.050	-	94	77-121
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0414	0.0040	0.050	-	83	67-119
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0457	0.0040	0.050	-	91	58-135
1,1-Dichloroethene	ND	0.0484	0.0050	0.050	-	97	42-145
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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QA/QC Officer Page Page 53 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107183
Date Analyzed:	7/7/15	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107183 1507086-019AMS/MSD

QC Summary Report for SW8260B							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0462	0.0050	0.050	-	92	52-129
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0434	0.0050	0.050	-	87	53-125
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0419	0.0050	0.050	-	84	58-122
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0476	0.0050	0.050	-	95	76-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0489	0.0050	0.050	-	98	72-132
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
Surrogate Recovery							
Dibromofluoromethane	0.132	0.138		0.12	106	110	70-130
Toluene-d8	0.125	0.123		0.12	100	98	70-130
4-BFB	0.0149	0.0133		0.012	119	107	70-130
Benzene-d6	0.0946	0.102		0.10	95	102	60-140
Ethylbenzene-d10	0.110	0.123		0.10	110	123	60-140
1,2-DCB-d4	0.0876	0.0858		0.10	88	86	60-140

_____QA/QC Officer Page 54 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107183
Date Analyzed:	7/7/15	Extraction Method:	SW5030B
Instrument:	GC10	Analytical Method:	SW8260B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107183 1507086-019AMS/MSD

QC Summary Report for SW8260B									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0471	0.0473	0.050	ND	94	95	70-130	0.281	20
Benzene	0.0469	0.0460	0.050	ND	94	92	70-130	1.85	20
t-Butyl alcohol (TBA)	0.179	0.189	0.20	ND	89	95	70-130	5.50	20
Chlorobenzene	0.0465	0.0458	0.050	ND	93	92	70-130	1.33	20
1,2-Dibromoethane (EDB)	0.0441	0.0443	0.050	ND	88	89	70-130	0.352	20
1,2-Dichloroethane (1,2-DCA)	0.0504	0.0500	0.050	ND	101	100	70-130	0.832	20
1,1-Dichloroethene	0.0416	0.0412	0.050	ND	83	82	70-130	0.889	20
Diisopropyl ether (DIPE)	0.0535	0.0527	0.050	ND	107	105	70-130	1.48	20
Ethyl tert-butyl ether (ETBE)	0.0506	0.0500	0.050	ND	101	100	70-130	1.10	20
Methyl-t-butyl ether (MTBE)	0.0477	0.0474	0.050	ND	95	95	70-130	0	20
Toluene	0.0433	0.0431	0.050	ND	87	86	70-130	0.459	20
Trichloroethene	0.0422	0.0413	0.050	ND	84	83	70-130	2.29	20
Surrogate Recovery									
Dibromofluoromethane	0.138	0.138	0.12		111	110	70-130	0.269	20
Toluene-d8	0.137	0.136	0.12		109	109	70-130	0	20
4-BFB	0.0136	0.0135	0.012		108	108	70-130	0	20
Benzene-d6	0.113	0.110	0.10		113	110	60-140	2.28	20
Ethylbenzene-d10	0.129	0.125	0.10		129	125	60-140	3.47	20
1,2-DCB-d4	0.0975	0.0981	0.10		98	98	60-140	0	20

_____QA/QC Officer Page 55 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/7/15	BatchID:	107269
Date Analyzed:	7/7/15	Extraction Method:	SW3550B
Instrument:	GC35	Analytical Method:	SW8270C-SIM
Matrix:	Soil	Unit:	mg/kg
Project:	94th & International	Sample ID:	MB/LCS-107269 1507086-007AMS/MSD

QC Summary Report for SW8270C							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	-	0.010	-	-	-	-
Acenaphthylene	ND	-	0.010	-	-	-	-
Anthracene	ND	-	0.010	-	-	-	-
Benzo (a) anthracene	ND	-	0.010	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.010	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.010	-	-	-	-
Benzo (a) pyrene	ND	0.187	0.010	0.20	-	93	30-130
Chrysene	ND	0.156	0.010	0.20	-	78	30-130
Dibenzo (a,h) anthracene	0.0112	-	0.010	-	-	-	-
Fluoranthene	ND	-	0.010	-	-	-	-
Fluorene	ND	-	0.010	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.010	-	-	-	-
1-Methylnaphthalene	ND	0.182	0.010	0.20	-	91	30-130
2-Methylnaphthalene	ND	0.180	0.010	0.20	-	90	30-130
Naphthalene	ND	-	0.010	-	-	-	-
Phenanthrene	ND	0.171	0.010	0.20	-	86	30-130
Pyrene	ND	0.148	0.010	0.20	-	74	30-130
Surrogate Recovery							
1-Fluoronaphthalene	0.332	0.356		0.50	66	71	30-130
2-Fluorobiphenyl	0.300	0.329		0.50	60	66	30-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzo (a) pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Chrysene	NR	NR		ND<0.05	NR	NR	-	NR	
1-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
2-Methylnaphthalene	NR	NR		ND<0.05	NR	NR	-	NR	
Phenanthrene	NR	NR		ND<0.05	NR	NR	-	NR	
Pyrene	NR	NR		ND<0.05	NR	NR	-	NR	
Surrogate Recovery									
1-Fluoronaphthalene	NR	NR			NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR			NR	NR	-	NR	

QA/QC Officer Page 56 of 81



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107203
Date Analyzed:	7/6/15	Extraction Method:	SW3550B
Instrument:	GC17	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107203 1507104-001AMS/MSD

QC Summary Report for SW8270C							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	4.36	0.25	5	-	87	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.50	-	-	-	-
4-Chloro-3-methylphenol	ND	5.54	0.25	5	-	111	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	5.00	0.25	5	-	100	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	4.27	0.25	5	-	85	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.79	0.25	5	-	96	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107203
Date Analyzed:	7/6/15	Extraction Method:	SW3550B
Instrument:	GC17	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107203 1507104-001AMS/MSD

QC Summary Report for SW8270C							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.94	1.3	5	-	79	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	4.15	0.25	5	-	83	30-130
Pentachlorophenol	ND	3.15	1.3	5	-	63	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	4.84	0.25	5	-	97	30-130
Pyrene	ND	4.58	0.25	5	-	92	30-130
1,2,4-Trichlorobenzene	ND	4.79	0.25	5	-	96	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-
Surrogate Recovery							
2-Fluorophenol	4.01	4.39		5	80	88	30-130
Phenol-d5	4.38	4.71		5	88	94	30-130
Nitrobenzene-d5	3.84	4.33		5	77	87	30-130
2-Fluorobiphenyl	3.69	4.20		5	74	84	30-130
2,4,6-Tribromophenol	1.98	3.31		5	40	66	16-130
4-Terphenyl-d14	3.54	4.27		5	71	85	30-130

_____QA/QC Officer Page 58 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107203
Date Analyzed:	7/6/15	Extraction Method:	SW3550B
Instrument:	GC17	Analytical Method:	SW8270C
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107203 1507104-001AMS/MSD

QC Summary Report for SW8270C									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	4.95	4.47	5	ND	99	89	30-130	10.1	30
4-Chloro-3-methylphenol	5.24	4.98	5	ND	105	100	30-130	5.14	30
2-Chlorophenol	4.99	4.83	5	ND	100	97	30-130	3.25	30
1,4-Dichlorobenzene	4.40	4.18	5	ND	88	84	30-130	5.19	30
2,4-Dinitrotoluene	5.00	4.68	5	ND	100	94	30-130	6.61	30
4-Nitrophenol	4.81	4.44	5	ND	96	89	30-130	8.03	30
N-Nitrosodi-n-propylamine	4.60	4.37	5	ND	92	87	30-130	5.15	30
Pentachlorophenol	4.98	4.69	5	ND	100	94	30-130	6.12	30
Phenol	4.82	4.77	5	ND	96	95	30-130	0.971	30
Pyrene	4.90	4.33	5	ND	98	87	30-130	12.3	30
1,2,4-Trichlorobenzene	4.73	4.35	5	ND	95	87	30-130	8.43	30
Surrogate Recovery									
2-Fluorophenol	4.84	4.68	5		97	94	30-130	3.48	30
Phenol-d5	5.14	5.01	5		103	100	30-130	2.54	30
Nitrobenzene-d5	4.69	4.34	5		94	87	30-130	7.54	30
2-Fluorobiphenyl	4.69	4.22	5		94	84	30-130	10.4	30
2,4,6-Tribromophenol	3.97	3.52	5		79	70	16-130	12.0	30
4-Terphenyl-d14	4.63	4.12	5		93	82	30-130	11.5	30

QA/QC Officer Page 59 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107185
Date Analyzed:	7/7/15	Extraction Method:	SW3050B
Instrument:	ICP-MS2	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107185 1507125-002AMS/MSD

QC Summary Report for Metals							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Antimony	ND	53.6	0.50	50	-	107	75-125
Arsenic	ND	51.6	0.50	50	-	103	75-125
Barium	ND	548	5.0	500	-	110	75-125
Beryllium	ND	53.2	0.50	50	-	106	75-125
Cadmium	ND	51.8	0.25	50	-	104	75-125
Chromium	ND	53.7	0.50	50	-	107	75-125
Cobalt	ND	53.7	0.50	50	-	107	75-125
Copper	ND	54.0	0.50	50	-	108	75-125
Lead	ND	53.5	0.50	50	-	107	75-125
Mercury	ND	1.27	0.050	1.25	-	101	75-125
Molybdenum	ND	50.7	0.50	50	-	101	75-125
Nickel	ND	52.8	0.50	50	-	106	75-125
Selenium	ND	52.1	0.50	50	-	104	75-125
Silver	ND	52.0	0.50	50	-	104	75-125
Thallium	ND	49.3	0.50	50	-	99	75-125
Vanadium	ND	53.2	0.50	50	-	106	75-125
Zinc	ND	536	5.0	500	-	107	75-125
Surrogate Recovery							
Terbium	560	543		500	112	109	70-130



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107185
Date Analyzed:	7/7/15	Extraction Method:	SW3050B
Instrument:	ICP-MS2	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107185 1507125-002AMS/MSD

QC Summary Report for Metals									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Antimony	50.0	51.3	50	ND	99	102	75-125	2.57	20
Arsenic	54.6	52.5	50	4.721	100	96	75-125	3.94	20
Barium	751	749	500	202.2	110	109	75-125	0.307	20
Beryllium	42.6	43.2	50	0.5259	84	85	75-125	1.42	20
Cadmium	48.0	49.1	50	ND	96	98	75-125	2.14	20
Chromium	NR	NR	50	68.17	NR	NR	75-125	NR	20
Cobalt	69.4	70.7	50	24.78	89	92	75-125	1.93	20
Copper	NR	NR	50	69.66	NR	NR	75-125	NR	20
Lead	109	75.0	50	44.01	129,F1	62,F1	75-125	36.7,F1	20
Mercury	1.28	1.23	1.25	ND	100	95	75-125	4.30	20
Molybdenum	48.1	49.4	50	1.008	94	97	75-125	2.77	20
Nickel	NR	NR	50	101.1	NR	NR	75-125	NR	20
Selenium	49.6	48.4	50	ND	99	97	75-125	2.49	20
Silver	47.9	49.0	50	ND	96	98	75-125	2.17	20
Thallium	44.6	46.2	50	ND	89	92	75-125	3.68	20
Vanadium	NR	NR	50	84.06	NR	NR	75-125	NR	20
Zinc	594	556	500	77.23	103	96	75-125	6.64	20
Surrogate Recovery									
Terbium	498	520	500		100	104	70-130	4.32	20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107144
Date Analyzed:	7/3/15	Extraction Method:	SW5030B
Instrument:	GC19	Analytical Method:	SW8021B/8015Bm
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107144 1507093-002AMS/MSD

QC Summary Report for SW8021B/8015Bm												
Analyte	MB Result	LCS Result		RL	SPK Val	MI %	B SS LC: REC %R	S EC	LCS Limits			
TPH(btex)	ND	0.533		0.40	0.60	_	89		70-130			
MTBE	ND	0.0938		0.050	0.10	-	94		70-130			
Benzene	ND	0.113		0.0050	0.10	-	113		70-130			
Toluene	ND	0.113		0.0050	0.10	-	113		70-130			
Ethylbenzene	ND	0.117		0.0050	0.10	-	117		70-130			
Xylenes	ND	0.373		0.0050	0.30	-	124		70-130			
Surrogate Recovery												
2-Fluorotoluene	0.117	0.116			0.10	11	7 116	i	70-130			
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit			
TPH(btex)	0.464	0.421	0.60	ND	77	70	70-130	9.61	20			
MTBE	0.0828	0.0767	0.10	ND	83	77	70-130	7.68	20			
Benzene	0.0968	0.0935	0.10	ND	97	93	70-130	3.46	20			
Toluene	0.0981	0.0953	0.10	ND	98	95	70-130	2.91	20			
Ethylbenzene	0.102	0.0992	0.10	ND	102	99	70-130	2.59	20			
Xylenes	0.328	0.321	0.30	ND	109	107	70-130	2.11	20			
Surrogate Recovery												
2-Fluorotoluene	0.101	0.0988	0.10		101	99	70-130	2.20	20			

QA/QC Officer Page 62 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107187
Date Analyzed:	7/7/15	Extraction Method:	SW5030B
Instrument:	GC7	Analytical Method:	SW8021B/8015Bm
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107187 1507125-002AMS/MSD

QC Summary Report for SW8021B/8015Bm													
Analyte	MB Result	LCS Result		RL	SPK Val	MI %I	B SS REC	LCS %REC		LCS Limits			
TPH(btex)	ND	0.546		0.40	0.60	-		91		70-130			
MTBE	ND	0.101		0.050	0.10	-		93		70-130			
Benzene	ND	0.108		0.0050	0.10	-		108		70-130			
Toluene	ND	0.108		0.0050	0.10	-		108		70-130			
Ethylbenzene	ND	0.113		0.0050	0.10	-		113		70-130			
Xylenes	ND	0.353		0.0050	0.30	-		118		70-130			
Surrogate Recovery													
2-Fluorotoluene	0.114	0.117			0.10	11	4	117		70-130			
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/N Limit	ISD I s	RPD	RPD Limit			
TPH(btex)	NR	NR		ND	NR	NR	-	1	NR				
MTBE	NR	NR		ND	NR	NR	-	1	NR				
Benzene	NR	NR		ND	NR	NR	-	1	NR				
Toluene	NR	NR		ND	NR	NR	-	1	NR				
Ethylbenzene	NR	NR		ND	NR	NR	-	1	NR				
Xylenes	NR	NR		ND	NR	NR	-	1	NR				
Surrogate Recovery													
2-Fluorotoluene	NR	NR			NR	NR	-	1	NR				

QA/QC Officer Page 63 of 81



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107111
Date Analyzed:	7/6/15	Extraction Method:	SW3050B
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107111 1507086-002AMS/MSD

	QC Su	mmary I	Report	for Lead					
Analyte	MB Result	LCS Result		RL	SPK Val	M %	BSSL REC %	CS 6REC	LCS Limits
Lead	ND	48.3		5.0	50	-	9	7	75-125
Surrogate Recovery									
Tb 350.917	478	488			500	96	6 9	8	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MS Limits	D RPD	RPD Limit
Lead	60.4	60.3	50	9.645	101	101	75-125	0	25
Surrogate Recovery									
Tb 350.917	498	508	500		100	102	70-130	1.89	20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107146
Date Analyzed:	7/6/15	Extraction Method:	SW3050B
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107146 1507086-021AMS/MSD

	QC Su	mmary I	Report f	for Lead					
Analyte	MB Result	LCS Result		RL	SPK Val	M %	B SS LC REC %I	:S REC	LCS Limits
Lead	ND	56.2		5.0	50	-	11	2	75-125
Surrogate Recovery									
Tb 350.917	496	509			500	99	10	2	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	60.2	61.2	50	8.392	104	106	75-125	1.57	25
Surrogate Recovery									
Tb 350.917	498	527	500		100	105	70-130	5.56	20



Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/2/15	BatchID:	107129
Date Analyzed:	7/3/15	Extraction Method:	SW3550B
Instrument:	GC2B	Analytical Method:	SW8015B
Matrix:	Soil	Unit:	mg/Kg
Project:	94th & International	Sample ID:	MB/LCS-107129 1507086-001AMS/MSD

	QC Report for	r SW801	5B w/ou	ut SG Cle	an-Up					
Analyte	MB Result	LCS Result		RL	SPK Val	MI %I	B SS REC	LCS %REC		LCS Limits
TPH-Diesel (C10-C23)	ND	35.7		1.0	40	_		89		70-130
TPH-Motor Oil (C18-C36)	ND	-		5.0	-	-		-		-
Surrogate Recovery										
C9	19.1	19.0			25	76	i	76		70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/I Limi	MSD I ts	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR		19	NR	NR	-		NR	
Surrogate Recovery										
C9	NR	NR			NR	NR	-	I	NR	

QA/QC Officer Page 66 of 81

McCampbell Analytical, Inc.



1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 2

•	Pittsburg, CA 94565-1701 (925) 252-9262				V	VorkO	rder:	150708	6	Cli	ientC	ode: AR	SB				
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Rep	ort to:					В	ill to:						Reques	ted TA	Г:	5 c	lavs
N A F V 7	Aichael F. Kara Applied Remedial Services, Inc. P.O. Box 5086 Valnut Creek, CA 94596-1086 07-748-4205 FAX: 707-748-420	Email: cc/3rd P PO: Project	arty: No: 94th & Interna)aol.com ational			Accou Applie P.O. E Walnu	nts Pay d Reme sox 5086 t Creek	able dial S 3 , CA 9	ervices, 4596-1(Inc. 086		Date R Date P	eceive rinted:	d:	07/02/2 07/10/2	015 015
									Re	equeste	d Test	s (See leg	end bel	ow)			
Lab	D D Client	ID	Matrix	Collection Date	e Hold	1	2	3	4	5	6	7	8	9	10	11	12
150	7086-001 SB1-	2'	Soil	7/2/2015 9:45			Α	Α			A	A	А	А	Α	A	А
150	7086-002 SB1-	6'	Soil	7/2/2015 9:50									А	Α			Α
150	7086-003 SB1-1	10'	Soil	7/2/2015 9:55									А	Α			Α
150	7086-004 SB2-	2'	Soil	7/2/2015 10:20)						Α		А	Α	Α	Α	Α
150	7086-005 SB2-	6'	Soil	7/2/2015 10:25	5						Α		А	Α			Α
150	7086-007 SB3-	2'	Soil	7/2/2015 11:10)	Α		Α	Α		Α		А	Α	Α	A	Α
150	7086-008 SB3-	6'	Soil	7/2/2015 11:15	5	А		Α					А	А			Α
150	7086-010 SB5-	2'	Soil	7/2/2015 13:40)						Α		А	А	А	Α	Α
150	7086-011 SB5-	6'	Soil	7/2/2015 13:45	5								А	А			А
150	7086-013 SB7-	2'	Soil	7/2/2015 13:00)		Α			А	Α		А	Α	Α		Α
150	7086-014 SB7-	6'	Soil	7/2/2015 13:05	5	А							А	Α			Α
150	7086-016 SB8-	2'	Soil	7/2/2015 10:45									А	А	Α	А	Α
150	7086-017 SB8-	6'	Soil	7/2/2015 10:50									А	А			Α
150	7086-019 SB9-	2'	Soil	7/2/2015 11:40)		Α	Α			Α		Α	Α			Α
150	7086-020 SB9-	6'	Soil	7/2/2015 11:45	5						A		A	A	_		A
Tes	t Legend:																
1	8081_S	2 808	81PCB_S	3	8260B_S	6		4		8270_PI	NA_S		5		827	′0_S	
6	ASBESTOS_E600PLM_S	7 CA	M17MS_S	8 G	-MBTEX	_S		9		PB_	S		10		STLC	_PB_S	
11	TCLP_PB_S	12 TPH	I(DMO)_S														

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 007A, 008A, 010A, 011A, 013A, 014A, 016A, 017A, 019A, 020A, 021A contain testgroup.

Prepared by: Erika Santos

Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, **Comments:** 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

	bell Analytical, ^{Ilow Pass Rd}	Inc.			СН	AIN	N-OF	-CL	IST(ODY	' RE	COR	D		Page	2 of	2
Pittsburg (925) 252	g, CA 94565-1701 2-9262				V	VorkC	Order:	150708	6	Cli	entCo	de: ARS	SB				
		WaterTrax	WriteOn	EDF	E	Excel		EQuIS	✓	Email		HardCo	ру		arty	☐ J-fla	ag
Report to:						B	Bill to:					F	Reque	sted TAT:	:	5 (days
Michael F. Ka Applied Reme P.O. Box 5086	ra edial Services, Inc. 6	Email: m cc/3rd Party: PO:	nmkara707@a	ol.com			Accou Applie P.O. E	nts Pay d Reme Sox 5086	able dial Se	ervices,	Inc.	1	Date 1	Received	:	07/02/2	2015
Walnut Creek 707-748-4205	, CA 94596-1086 FAX: 707-748-4207	ProjectNo: 9	4th & Internation	onal			Walnu	it Creek	, CA 94	4596-10	86	1	Date 1	Printed:		07/10/2	2015
									Re	quested	l Tests	(See lege	nd be	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1507086-021	SB9-10'		Soil	7/2/2015 11:50									A	A			А

Test Legend:

1	8081_S	2	8081PCB_S	3	8260B_S	4	8270_PNA_S	5	8270_S
6	ASBESTOS_E600PLM_S	7	CAM17MS_S	8	G-MBTEX_S	9	PB_S	10	STLC_PB_S
11	TCLP_PB_S	1:	2 TPH(DMO)_S						

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 007A, 008A, 010A, 011A, 013A, 014A, 016A, 017A, 019A, 020A, 021A contain testgroup.

Prepared by: Erika Santos

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

		''When Quality	v Counts''				http://www.m	ccampbell.com / E-n	nail: main@mccampbell.	com		
				WO	ORK ORD	ER SI	U MMARY					
Client Name	: APPLIED F	REMEDIAL SERVICES	S, INC.		QC Le	vel: LE	VEL 2			Wor	k Order:	1507086
Project:	94th & Inter	rnational			Client Cont	act: Mi	chael F. Kara			Date F	Received:	7/2/2015
Comments:	Pb STLC: 15 7/6/15 5D TA	07086-001A, -004A, -007 AT. 001 Not enough samp	A, -010A, -013 le remaining for	A, -016A. anything!	Contact's Em	ail: mn	nkara707@aol.com					
		WaterTrax	WriteOn	EDF	Excel		Fax 🖌 Email	HardC	opy	ty 🗌	J-flag	
Lab ID	Client ID	Matrix	Test Name		Con /Con	tainers nposites	Bottle & Preservative	e De- chlorinated	Collection Date & Time	ТАТ	Sedimen Content	t Hold SubOut t
1507086-001A	SB1-2'	Soil	SW6010B (Le	ad) (TCLP)		1	Acetate Liner		7/2/2015 9:45	1 day*		
			SW6010B (Le	ad) (STLC)						1 day*		
			SW6010B (Le	ad)						5 days		
			Multi-Range T	TPH(g,d,mo)						5 days		
			SW6020 (CAN	M 17)						5 days		
			Asbestos - PLI	М						5 days		SubOut
			SW8260B (V0	DCs)						5 days		
			SW8081A/808	32 (OC Pestici	ides+PCBs)					5 days		
1507086-002A	SB1-6'	Soil	SW6010B (Le	ad)		1	Acetate Liner		7/2/2015 9:50	5 days		
			Multi-Range T	TPH(g,d,mo)						5 days		
1507086-003A	SB1-10'	Soil	SW6010B (Le	ad)		1	Acetate Liner		7/2/2015 9:55	5 days		
			Multi-Range T	TPH(g,d,mo)						5 days		
1507086-004A	SB2-2'	Soil	SW6010B (Le	ad) (TCLP)		1	Acetate Liner		7/2/2015 10:20	1 day*		
			SW6010B (Le	ad) (STLC)						1 day*		
			SW6010B (Le	ad)						5 days		
			Multi-Range 7	TPH(g,d,mo)						5 days		

McCampbell Analytical, Inc.

1534 Willow Pass Road, Pittsburg, CA 94565-1701

Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

		''When Quality	Counts"		http://w	ww.mccampbell.com / E	-mail: main@mccampbell	.com			
			W	ORK ORDEH	R SUMMARY						
Client Name	e: APPLIED REM	IEDIAL SERVICES	S, INC.	QC Level	: LEVEL 2			Wor	k Order: 15	507086	5
Project:	94th & Internat	ional		Client Contact	: Michael F. Kara			Date F	Received: 7/	2/2015	5
Comments:	Pb STLC: 15070 7/6/15 5D TAT. (86-001A, -004A, -007 001 Not enough sampl	A, -010A, -013A, -016A. le remaining for anything!	Contact's Email	: mmkara707@aol.co	m					
		WaterTrax	WriteOn EDF	Excel	Fax Fax	nail Hard	Copy ThirdPa	rty	J-flag		
Lab ID	Client ID	Matrix	Test Name	Contain /Compo	ners Bottle & Preserv osites	ative De- chlorinated	Collection Date d & Time	ТАТ	Sediment H Content	fold S	ubOut
1507086-004A	SB2-2'	Soil	Asbestos - PLM	1	Acetate Liner		7/2/2015 10:20	5 days		✓ S	SubOut
1507086-005A	SB2-6'	Soil	SW6010B (Lead)	1	Acetate Liner		7/2/2015 10:25	5 days			
			Multi-Range TPH(g,d,mo)					5 days			
			Asbestos - PLM					5 days		S S	SubOut
1507086-006A	SB2-10'	Soil		1	Acetate Liner		7/2/2015 10:30			✓	
1507086-007A	SB3-2'	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner		7/2/2015 11:10	1 day*			
			SW6010B (Lead) (STLC)					1 day*			
			SW6010B (Lead)					5 days			
			Multi-Range TPH(g,d,mo)					5 days			
			Asbestos - PLM					5 days		✓ S	SubOut
			SW8270C (PAHs/PNAs)					5 days			
			SW8260B (VOCs)					5 days			
			SW8081A (OC Pesticides)					5 days			
1507086-008A	SB3-6'	Soil	SW6010B (Lead)	1	Acetate Liner		7/2/2015 11:15	5 days			
			Multi-Range TPH(g,d,mo)					5 days			
			SW8260B (VOCs)					5 days			

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- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

	<u>Mc</u>	Campbell Ar	nalytical, Inc. Counts"			1534 Willo Toll Free Telep http://www.mcc	w Pass Road, Pitts bhone: (877) 252-9 ampbell.com / E-n	burg, CA 94565-1701 262 / Fax: (925) 252-920 ail: main@mccampbell.	59 com			
			WO	ORK ORD	DER SU	U MMARY						
Client Name	: APPLIED RI	EMEDIAL SERVICES	S, INC.	QC L	evel: LE	VEL 2			Wor	k Order:	150708	86
Project:	94th & Interr	national		Client Con	tact: Mi	chael F. Kara			Date F	Received:	7/2/20	15
Comments:	Pb STLC: 150 7/6/15 5D TAT	7086-001A, -004A, -007 T. 001 Not enough sampl	A, -010A, -013A, -016A. e remaining for anything!	Contact's E	mail: mn	nkara707@aol.com						
		WaterTrax	WriteOn EDF	Excel		Fax 🖌 Email		opy ThirdPar	ty 🗌	J-flag		
Lab ID	Client ID	Matrix	Test Name	Co /Co	ntainers mposites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1507086-008A	SB3-6'	Soil	SW8081A (OC Pesticides)		1	Acetate Liner		7/2/2015 11:15	5 days			
1507086-009A	SB3-10	Soil			1	Acetate Liner		7/2/2015 11:20			✓	
1507086-010A	SB5-2'	Soil	SW6010B (Lead) (TCLP)		1	Acetate Liner		7/2/2015 13:40	1 day*			
			SW6010B (Lead) (STLC)						1 day*			
			SW6010B (Lead)						5 days			
			Multi-Range TPH(g,d,mo)						5 days			
			Asbestos - PLM						5 days		✓	SubOut
1507086-011A	SB5-6'	Soil	SW6010B (Lead)		1	Acetate Liner		7/2/2015 13:45	5 days			
			Multi-Range TPH(g,d,mo)						5 days			
1507086-012A	SB5-10'	Soil			1	Acetate Liner		7/2/2015 13:50			✓	
1507086-013A	SB7-2'	Soil	Multi-Range TPH(g,d,mo)		1	Acetate Liner		7/2/2015 13:00	5 days			
			SW6010B (Lead) (STLC)						1 day*			
			SW6010B (Lead)						5 days			
			Asbestos - PLM						5 days		✓	SubOut
			SW8270C (SVOCs)						5 days			
			SW8081A/8082 (OC Pestic	ides+PCBs)					5 days			

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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	<u>IV</u>	<u>ACCOMPDEILA</u> ''When Qualit	<u>ty Counts''</u>	<u>, INC.</u>				Toll Free Telep http://www.mcc	phone: (877) 252-9 ampbell.com / E-m	262 / Fax: (925) 252-92 nail: main@mccampbell.	59 20m			
				WO	ORK OR	DER SI	UMMA	RY						
Client Name	e: APPLIED	REMEDIAL SERVICE	ES, INC.		QC	Level: LF	EVEL 2				Wor	k Order:	15070	86
Project:	94th & Inte	ernational			Client Co	ontact: M	ichael F. K	lara			Date F	Received:	7/2/20	15
Comments:	Pb STLC: 1: 7/6/15 5D T	507086-001A, -004A, -00 AT. 001 Not enough samp	07A, -010A, -013 ple remaining for	A, -016A. anything!	Contact's	E mail: mr	mkara707@	aol.com						
		WaterTrax	WriteOn	EDF	Exc	el	Fax	🖌 Email	HardCo	opyThirdPar	ty 🗌 🤇	J-flag		
Lab ID	Client ID	Matrix	Test Name		C /('ontainers Composites	Bottle &	Preservative	De- chlorinated	Collection Date & Time	ТАТ	Sediment Content	Hold	SubOut
1507086-014A	SB7-6'	Soil	SW6010B (Le	ad)		1	Acet	ate Liner		7/2/2015 13:05	5 days			
			Multi-Range T	PH(g,d,mo)							5 days			
			SW8081A (OG	C Pesticides)							5 days			
1507086-015A	SB7-10'	Soil				1	Acet	ate Liner		7/2/2015 13:10			✓	
1507086-016A	SB8-2'	Soil	SW6010B (Le	ad) (TCLP)		1	Acet	ate Liner		7/2/2015 10:45	1 day*			
			SW6010B (Le	ad) (STLC)							1 day*			
			SW6010B (Le	ad)							5 days			
			Multi-Range T	PH(g,d,mo)							5 days			
1507086-017A	SB8-6'	Soil	SW6010B (Le	ad)		1	Acet	ate Liner		7/2/2015 10:50	5 days			
			Multi-Range T	PH(g,d,mo)							5 days			
1507086-018A	SB8-10'	Soil				1	Acet	ate Liner		7/2/2015 10:55			✓	
1507086-019A	SB9-2'	Soil	Multi-Range T	PH(g,d,mo)		1	Acet	ate Liner		7/2/2015 11:40	5 days			
			SW6010B (Le	ad)							5 days			
			Asbestos - PLN	M							5 days		✓	SubOut
			SW8260B (VC	DCs)							5 days			
			SW8081A/808	32 (OC Pestici	des+PCBs)						5 days			

1534 Willow Pass Road, Pittsburg, CA 94565-1701

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McCampbell Analytical, Inc.

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

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	MC	Campbell Ar	nalytical, Inc. ^{Counts} "			1534 Willo Toll Free Telep http://www.mcc	w Pass Road, Pitts bhone: (877) 252-9 ampbell.com / E-m	burg, CA 94565-1701 262 / Fax: (925) 252-926 ail: main@mccampbell.c	59 com			
			WC	ORK ORDE	R SU	MMARY						
Client Name	: APPLIED REI	MEDIAL SERVICES	S, INC.	QC Leve	el: LEV	VEL 2			Worl	Corder: 1	50708	86
Project:	94th & Interna	tional		Client Contac	et: Mic	hael F. Kara			Date R	eceived: 7	/2/20	15
Comments:	Pb STLC: 1507 7/6/15 5D TAT.	086-001A, -004A, -007 001 Not enough sampl	A, -010A, -013A, -016A. e remaining for anything! WriteOn EDF	Contact's Ema	il: mm □	kara707@aol.com Fax ∢ Email	HardCo	opy ⊡ThirdPart	y 🗍 J	-flag		
Lab ID	Client ID	Matrix	Test Name	Conta /Comp	iners osites	Bottle & Preservative	De- chlorinated	Collection Date & Time	ТАТ	Sediment Content	Hold	SubOut
1507086-020A	SB9-6'	Soil	SW6010B (Lead)	1		Acetate Liner		7/2/2015 11:45	5 days			
			Multi-Range TPH(g,d,mo)						5 days			
			Asbestos - PLM						5 days		✓	SubOut
1507086-021A	SB9-10'	Soil	SW6010B (Lead)	1		Acetate Liner		7/2/2015 11:50	5 days			
			Multi-Range TPH(g,d,mo)						5 days			

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

	IcCAMP	BELL 1534 WI PITTSBU	LLOW PA JRG, CA 94	LYT SS RO	AD 701	AL	., I	[N (m				ו	ГUF	RN .	AR	C DU	HAND	IN TIN	I O ME	F	CU R		T(DD [24)Y] HR	R	EC □ 48 F	¦OH I IR	₹D □ 72 H	R 5D	AY
Tel	ephone: (877	() 252-92	262	ian. n	Fax	: (92	25)	252	-92	6 9				0	Geo'	Tra	icke	r E	DF		P	DF	'⊑ kif]	Ex	cel	offl	I V	Vri t an	te O	n (D	W)	red
Report To: Ní	chael Kara	C	E	ill To):	AR	s,	In	٤.	4									An	alys	is R	equ	est	541	npi	C 13	em	uen		O	ther	Comn	nen
Company: AR	Box 508	6	<i>ca</i> , 1	E Mo					-	2.0				MTBE	J	E/B&F)					ongeners									14 1 YAIA	1	Filter Sampl	les
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Project Location:	gyth & Int	ternatio	mal (94	00 -	9500	Ī	te	nati	mal	BI	vd,	Oakla	md)	8021	1	se (16	ons (4		602		V; Al	(s)	Her	(s)	Cs)	S / P	(0	8 / 60	020)	Y			
Sampler Signatur	e: M.Ros	som an												602 /	÷	Grea	carb		(EPA			suci		Ň	(SVO	HYA	/ 602	200.	10/6	20			
	LOCATION/	SAM	PLING	lers	ainers		MA	ATR	IX		MI PRE	ETHO	OD VED	I as Gas ((S108)	ım Oil &	um Hydro	IV0Cs)	X ONLY) 1000 (C	AL MD B	11 INI) 14	DIDE) ICIG	24 / 8260	25 / 8270	M/8310(als (200.8	ls (200.7 /	200.8 / 60	tos .			
SAMPLE ID	Field Point Name	Date	Time	# Contain	Type Cont	Water	Soil	Air	Sludge	Other	ICE	HCL HNO,	Other	BTEX & TPH	TPH as Diese	Total Petrole	Total Petrole	EPA 8260 (F	MTBE / BTE	600 /CUC FT3	EPA 008 / 808	10 / / AC ELS TOS	2 / C.CIC ATA	EPA 524.2 / 6	EPA 525.2 / 6	EPA 8270 SI	CAM 17 Meti	LUFT 5 Meta	Lead (200.7 /	AS bes			
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5828-61			1025												+														×	イ			
SB2 - 101			1030																													Hot d	
5 B3 - 2'			1110												+	-				5				×		イ			×	4			
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* SBS-10' Placed on Hold Page 74 of 81
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Blake Brown

From:	Blake Brown <blake.brown@mccampbell.com></blake.brown@mccampbell.com>
Sent:	Monday, July 06, 2015 9:54 AM
То:	'Michael Kara'; 'main@mccampbell.com'
Subject:	RE: WorkOrder Summary for Project: 94th & International [MAI WO#: 1507086]

Michael-

We will do the following:

MS/MSD

Add-on 8260 to 1507086-019A (SB9-2')

• Cancel 8081 on 1507086-020A (SB9-6') √ €.5

• Add-on 8260, 8081/8082, CAM17 to 1507086-001A (SB1-2')

MS/MSD US/MSD

We have also re-directed your subbed Asbestos work to Micro Analytical. We will have them bill and report to you directly since it seems that you have worked out special pricing with them.

Thanks,

Blake

From: Michael Kara [mailto:mmkara707@aol.com]
Sent: Sunday, July 05, 2015 6:14 PM
To: main@mccampbell.com; blake.brown@mccampbell.com
Subject: Re: WorkOrder Summary for Project: 94th & International [MAI WO#: 1507086]

Blake:

- 1. Please add VOCs 8260 to sample SB-9-2' and delete Chlorinated pesticides from sample SB-9-6'.
- 2. Please add VOCs, Chlorinated Pesticides, CAM 17 & PCB's to Sample SB-1-2'.

I am sorry about these changes. Thanks, Michael

Michael F. Kara / Principal Toxicologist ARS, Inc. P.O. Box 5086 Walnut Creek, CA 94596

Ph: 925-943-7742 Cell: 707-567-2202 Fax: 925-943-7714

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-----Original Message-----From: main <<u>main@mccampbell.com</u>> To: mmkara707 <<u>mmkara707@aol.com</u>> Sent: Thu, Jul 2, 2015 7:21 pm Subject: WorkOrder Summary for Project: 94th & International [MAI WO#: 1507086]

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McCampto 1534 Wi Pittsburg Phone: Fax:	Dell Analytical, Inc. Illow Pass Rd g, CA 94565-1701 (925) 252-9262 (925) 252-9269			SUB CH WorkOrder: 150	AIN-C 7086)F-CUS ClientCo	TODY R	ECORD	Page 1 of 1
Subcontractor: MICRO AND 5900 HOUR Emeryy	alytical laboratories 15 St i IIL, CA	TEL: FAX: ProjectNo: Acct #:	く らいの しちる 94th & Internation #A31409	-0824 M	111 TO 1chael 20.85, 11 2.0.80 Wain (92)	F. Kara nc. ox 5086	Subcontra	actor Standard TAT: Date Received:	48Hr 07/02/2015
						1	Re	quested Tests	
Lab ID	Client ID		Matrix	Collection Date	TAT	Asbestos			
1507086-001A	SB1-2'		Soil	7/2/2015 9:45	Zday(s)	1			
1507086-004A	SB2-2'		Soil	7/2/2015 10:20	2 day(s)	1			
1507086-005A	SB2-6'		Soil	7/2/2015 10:25	Z day(s)	1			
1507086-007A	SB3-2'		Soil	7/2/2015 11:10	2 day(s)	1			
1507086-010A	SB5-2'		Soil	7/2/2015 13:40	2 day(s)	1			
1507086-013A	SB7-2'	8	Soil	7/2/2015 13:00	2 day(s)	1			
1507086-019A	SB9-2'		Soil	7/2/2015 11:40	2.day(s)	1			
1507086-020A	SB9-6'	1	Soil	7/2/2015 11:45	2day(s)	1			

Comments: PLEASE USE 'CLIENT ID' AS THE SAMPLE ID AND EMAIL ASAP!

Please email results to Erika Santos at subdata@mccampbell.com upon completion.

222	Date/Time]	Date/Time
Relinquished by: Malla V	7/6/15	Received by:	
Relinquished by:		Received by:	

Mccampbell Analytical, Inc.

From:	Michael Kara <mmkara707@aol.com></mmkara707@aol.com>
Sent:	Monday, July 06, 2015 9:44 AM
То:	main@mccampbell.com
Subject:	94th & International
Subject:	94th & International

Dear Erica:

Can you please take a small portion of the designated samples to be tested for **Bulk Asbestos via PLM** to Micro Analytical laboratories, Inc. they are at 5900 Hollis Street in Emeryville (510) 653-0824. If one of the couriers is in the area, I would be very grateful if they can drop the samples of between **now and wednesday** and request **48 hour turnaround.** Thank you in advance for your assistance. We have an account with Micro Analytical, so they will bill us. Michael

Michael F. Kara / Principal Toxicologist ARS, Inc. P.O. Box 5086 Walnut Creek, CA 94596

Ph: 925-943-7742 Cell: 707-567-2202 Fax: 925-943-7714

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Sample Receipt Checklist

Client Name:	Applied Remedial S	ervices, Inc.			Date and T	ime Received:	7/2/2015 5:52:53 PM
Project Name:	94th & International				LogIn Revi	ewed by:	Erika Santos
WorkOrder №:	1507086	Matrix: <u>Soil</u>			Carrier:	Client Drop-In	
		Chain of C	ustody	/ (COC) lı	nformation		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinquis	shed and received?	Yes	✓	No 🗌		
Chain of custody	agrees with sample la	abels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC?		Yes	✓	No 🗌		
Date and Time of	f collection noted by C	lient on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No 🗌		
		Sample	e Rece	eipt Inforr	<u>nation</u>		
Custody seals int	act on shipping conta	iner/cooler?	Yes		No 🗌		NA 🗹
Shipping containe	er/cooler in good cond	lition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottles?		Yes	✓	No 🗌		
Sample containe	rs intact?		Yes	✓	No 🗌		
Sufficient sample	volume for indicated	test?	Yes	✓	No 🗌		
		Sample Preservatio	on and	Hold Tin	<u>ne (HT) Info</u>	rmation	
All samples recei	ved within holding tim	e?	Yes	✓	No		
Sample/Temp Bla	ank temperature			Temp:	2.4°C		
Water - VOA vial	s have zero headspac	e / no bubbles?	Yes		No		NA 🗹
Sample labels ch	ecked for correct pres	servation?	Yes	✓	No		
pH acceptable up	oon receipt (Metal: <2;	522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ісе Туре	: WE	TICE)			
UCMR3 Samples	:: ested and accentable	upon receipt for EPA 5222	Yee		No		
Free Chlorine t	ested and accentable	upon receipt for EPA 218.7	Yes				
300.1, 537, 539)?		100				

* NOTE: If the "No" box is checked, see comments below.

Comments:



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1506A62
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	#15-34-001; 94th + International
Project Received:	06/24/2015

Analytical Report reviewed & approved for release on 06/30/2015 by:

Angela Rydelius, Laboratory Manager

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1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
Project:	#15-34-001; 94th + International
WorkOrder:	1506A62

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

 S
 spike recovery outside accepted recovery limits

 c11
 The surrogate recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data has been reported.



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3550B
Date Received:	6/24/15 20:51	Analytical Method:	SW8081A
Date Prepared:	6/24/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix	Date Col	llected	Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/201	5 13:35	GC22	106771
Analytes	Result		<u>RL</u>	DF		Date Analyzed
Aldrin	ND		0.0010	1		06/26/2015 02:48
a-BHC	ND		0.0010	1		06/26/2015 02:48
b-BHC	ND		0.0010	1		06/26/2015 02:48
d-BHC	ND		0.0010	1		06/26/2015 02:48
g-BHC	ND		0.0010	1		06/26/2015 02:48
Chlordane (Technical)	ND		0.025	1		06/26/2015 02:48
a-Chlordane	ND		0.0010	1		06/26/2015 02:48
g-Chlordane	ND		0.0010	1		06/26/2015 02:48
p,p-DDD	ND		0.0010	1		06/26/2015 02:48
p,p-DDE	ND		0.0010	1		06/26/2015 02:48
p,p-DDT	ND		0.0010	1		06/26/2015 02:48
Dieldrin	ND		0.0010	1		06/26/2015 02:48
Endosulfan I	ND		0.0010	1		06/26/2015 02:48
Endosulfan II	ND		0.0010	1		06/26/2015 02:48
Endosulfan sulfate	ND		0.0010	1		06/26/2015 02:48
Endrin	ND		0.0010	1		06/26/2015 02:48
Endrin aldehyde	ND		0.0010	1		06/26/2015 02:48
Endrin ketone	ND		0.0010	1		06/26/2015 02:48
Heptachlor	ND		0.0010	1		06/26/2015 02:48
Heptachlor epoxide	ND		0.0010	1		06/26/2015 02:48
Hexachlorobenzene	ND		0.010	1		06/26/2015 02:48
Hexachlorocyclopentadiene	ND		0.020	1		06/26/2015 02:48
Methoxychlor	ND		0.0010	1		06/26/2015 02:48
Toxaphene	ND		0.050	1		06/26/2015 02:48
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Decachlorobiphenyl	121		70-130			06/26/2015 02:48
<u>Analyst(s):</u> CK						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3550B
Date Received:	6/24/15 20:51	Analytical Method:	SW8081A
Date Prepared:	6/24/15	Unit:	mg/kg

Organochlorine Pesticides (Basic Target List)

Client ID	Lab ID	Matrix	Date Col	llected	Instrument	Batch ID
SB-6-3.0	1506A62-004A	Soil	06/24/201	5 15:05	GC22	106771
Analytes	<u>Result</u>		<u>RL</u>	DF		Date Analyzed
Aldrin	ND		0.0010	1		06/26/2015 03:22
a-BHC	ND		0.0010	1		06/26/2015 03:22
b-BHC	ND		0.0010	1		06/26/2015 03:22
d-BHC	ND		0.0010	1		06/26/2015 03:22
g-BHC	ND		0.0010	1		06/26/2015 03:22
Chlordane (Technical)	ND		0.025	1		06/26/2015 03:22
a-Chlordane	ND		0.0010	1		06/26/2015 03:22
g-Chlordane	ND		0.0010	1		06/26/2015 03:22
p,p-DDD	ND		0.0010	1		06/26/2015 03:22
p,p-DDE	ND		0.0010	1		06/26/2015 03:22
p,p-DDT	ND		0.0010	1		06/26/2015 03:22
Dieldrin	ND		0.0010	1		06/26/2015 03:22
Endosulfan I	ND		0.0010	1		06/26/2015 03:22
Endosulfan II	ND		0.0010	1		06/26/2015 03:22
Endosulfan sulfate	ND		0.0010	1		06/26/2015 03:22
Endrin	ND		0.0010	1		06/26/2015 03:22
Endrin aldehyde	ND		0.0010	1		06/26/2015 03:22
Endrin ketone	ND		0.0010	1		06/26/2015 03:22
Heptachlor	ND		0.0010	1		06/26/2015 03:22
Heptachlor epoxide	ND		0.0010	1		06/26/2015 03:22
Hexachlorobenzene	ND		0.010	1		06/26/2015 03:22
Hexachlorocyclopentadiene	ND		0.020	1		06/26/2015 03:22
Methoxychlor	ND		0.0010	1		06/26/2015 03:22
Toxaphene	ND		0.050	1		06/26/2015 03:22
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Decachlorobiphenyl	114		70-130			06/26/2015 03:22
<u>Analyst(s):</u> CK						



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW5030B
Date Received:	6/24/15 20:51	Analytical Method:	SW8021B/8015Bm
Date Prepared:	6/24/15	Unit:	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/2015 13:35	GC19	106784
<u>Analytes</u>	Result		<u>RL DF</u>		Date Analyzed
TPH(g)	ND		1.0 1		06/27/2015 00:07
MTBE			0.050 1		06/27/2015 00:07
Benzene			0.0050 1		06/27/2015 00:07
Toluene			0.0050 1		06/27/2015 00:07
Ethylbenzene			0.0050 1		06/27/2015 00:07
Xylenes			0.0050 1		06/27/2015 00:07
<u>Surrogates</u>	<u>REC (%)</u>		Limits		
2-Fluorotoluene	106		70-130		06/27/2015 00:07
Analyst(s): IA					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Client ID SB-4-6.0	Lab ID 1506A62-002A	Matrix Soil	Date Collected 06/24/2015 13:45	Instrument GC19	Batch ID 106784
Client ID SB-4-6.0 <u>Analytes</u>	Lab ID 1506A62-002A <u>Result</u>	Matrix Soil	Date Collected 06/24/2015 13:45 RL DF	Instrument GC19	Batch ID 106784 Date Analyzed
Client ID SB-4-6.0 Analytes TPH(g)	Lab ID 1506A62-002A <u>Result</u> ND	Matrix Soil	Date Collected 06/24/2015 13:45 RL DF 1.0 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36
Client ID SB-4-6.0 Analytes TPH(g) MTBE	Lab ID 1506A62-002A Result ND 	Matrix Soil	Date Collected 06/24/2015 13:45 RL DF 1.0 1 0.050 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 Analytes TPH(g) MTBE Benzene	Lab ID 1506A62-002A Result ND 	Matrix Soil	Date Collected 06/24/2015 13:45 RL DE 1.0 1 0.050 1 0.0050 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 <u>Analytes</u> TPH(g) MTBE Benzene Toluene	Lab ID 1506A62-002A Result ND 	Matrix Soil	RL DF 1.0 1 0.0500 1 0.00500 1 0.00500 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 <u>Analytes</u> TPH(g) MTBE Benzene Toluene Ethylbenzene	Lab ID 1506A62-002A Result ND 	Matrix Soil	RL DF 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	Lab ID 1506A62-002A Result ND 	Matrix Soil	RL DE 0.0500 1 0.00500 1 0.00500 1 0.00500 1 0.000500 1 0.000500 1 0.000500 1 0.000500 1 0.000500 1 0.000500 1 0.000500 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Lab ID 1506A62-002A Result ND REC (%)	Matrix Soil	RL DE 0.0500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1	Instrument GC19	Batch ID 106784 Date Analyzed 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36 06/27/2015 00:36
Client ID SB-4-6.0 Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates 2-Fluorotoluene	Lab ID 1506A62-002A Result ND REC (%) 106	Matrix Soil	RL DE 1.0 1 0.0500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1 0.00500 1	Instrument GC19	Batch 10674 Date Analyze 06/27/2015 0 06/27/2015 0 06/27/2015 0 06/27/2015 0 06/27/2015 0 06/27/2015 0



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW5030B
Date Received:	6/24/15 20:51	Analytical Method:	SW8021B/8015Bm
Date Prepared:	6/24/15	Unit:	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB-4-10.0	1506A62-003A	Soil	06/24/2015 13:55 GC7	106784
Analytes	Result		<u>RL DF</u>	Date Analyzed
TPH(g)	ND		1.0 1	06/25/2015 20:23
MTBE			0.050 1	06/25/2015 20:23
Benzene			0.0050 1	06/25/2015 20:23
Toluene			0.0050 1	06/25/2015 20:23
Ethylbenzene			0.0050 1	06/25/2015 20:23
Xylenes			0.0050 1	06/25/2015 20:23
Surrogates	<u>REC (%)</u>		Limits	
2-Fluorotoluene	101		70-130	06/25/2015 20:23
<u>Analyst(s):</u> IA				
Client ID	Lab ID	Matrix	Date Collected Instrument	Batch ID
SB-6-3.0	1506A62-004A	Soil	06/24/2015 15:05 GC19	
			00/24/2013 13:03 8019	106784
Analytes	Result		<u>RL DF</u>	106784 Date Analyzed
<u>Analytes</u> TPH(g)	<u>Result</u> ND		<u>RL DF</u> 1.0 1	106784 <u>Date Analyzed</u> 06/27/2015 01:06
Analytes TPH(g) MTBE	<u>Result</u> ND 		RL DF 1.0 1 0.050 1	106784 Date Analyzed 06/27/2015 01:06 06/27/2015 01:06
Analytes TPH(g) MTBE Benzene	<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1	106784 <u>Date Analyzed</u> 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06
Analytes TPH(g) MTBE Benzene Toluene	<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1	106784 <u>Date Analyzed</u> 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06
Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene	<u>Result</u> ND 		RL DE 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	106784 <u>Date Analyzed</u> 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06
Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes	<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	106784 Date Analyzed 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06
Analytes TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes Surrogates	Result ND REC (%)		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits	106784 <u>Date Analyzed</u> 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06 06/27/2015 01:06



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW5030B
Date Received:	6/24/15 20:51	Analytical Method:	SW8021B/8015Bm
Date Prepared:	6/24/15	Unit:	mg/Kg

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Lab ID	Matrix	Date Collected Instrument	Batch ID
1506A62-005A	Soil	06/24/2015 15:15 GC19	106784
Result		<u>RL DF</u>	Date Analyzed
ND		1.0 1	06/27/2015 01:36
		0.050 1	06/27/2015 01:36
		0.0050 1	06/27/2015 01:36
		0.0050 1	06/27/2015 01:36
		0.0050 1	06/27/2015 01:36
		0.0050 1	06/27/2015 01:36
<u>REC (%)</u>		<u>Limits</u>	
104		70-130	06/27/2015 01:36
Lab ID	Matrix	Date Collected Instrument	Batch ID
1506A62-006A	Soil	06/24/2015 15:25 GC19	106784
<u>Result</u>		<u>RL DF</u>	Date Analyzed
<u>Result</u> ND		<u>RL DF</u> 1.0 1	<u>Date Analyzed</u> 06/27/2015 03:05
Result ND 		RL DF 1.0 1 0.050 1	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05
<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05
<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05
<u>Result</u> ND 		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05
Result ND 		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05
Result ND REC (%)		RL DF 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 Limits	Date Analyzed 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05 06/27/2015 03:05
	1506A62-005A Result ND REC (%) 104 Lab ID 1506A62-006A	1506A62-005A Soil Result ND 104 Matrix 104 Soil	1506A62-005A Soil 06/24/2015 15:15 GC19 Result RL DF ND 1.0 1 0.050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 0.0050 1 04 70-130 Date C Instrument 1506A62-006A Soil 06/24/2015 15:25



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3050B
Date Received:	6/24/15 20:51	Analytical Method:	SW6010B
Date Prepared:	6/24/15	Unit:	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/2015 13:35	ICP-JY	106789
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	17		5.0 1		06/26/2015 15:43
<u>Surrogates</u>	<u>REC (%)</u>		Limits		
Tb 350.917	102		70-130		06/26/2015 15:43
<u>Analyst(s):</u> DVH					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-6.0	1506A62-002A	Soil	06/24/2015 13:45	ICP-JY	106789
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	8.3		5.0 1		06/26/2015 15:46
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	103		70-130		06/26/2015 15:46
Analyst(s): DVH					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-10.0	1506A62-003A	Soil	06/24/2015 13:55	ICP-JY	106789
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	6.4		5.0 1		06/26/2015 15:48
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	101		70-130		06/26/2015 15:48
Analyst(s): DVH					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-6-3.0	1506A62-004A	Soil	06/24/2015 15:05	ICP-JY	106789
Analytes	<u>Result</u>		<u>RL DF</u>		Date Analyzed
Lead	9.5		5.0 1		06/26/2015 15:51
Surrogates	<u>REC (%)</u>		Limits		
Tb 350.917	102		70-130		06/26/2015 15:51
Analyst(s). DVH					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3050B
Date Received:	6/24/15 20:51	Analytical Method:	SW6010B
Date Prepared:	6/24/15	Unit:	mg/Kg

Lead

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB-6-6.0	1506A62-005A	Soil	06/24/201	15 15:15 ICP-JY	106789
Analytes	<u>Result</u>		<u>RL</u>	DF	Date Analyzed
Lead	11		5.0	1	06/26/2015 15:58
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	105		70-130		06/26/2015 15:58
<u>Analyst(s):</u> DVH					
Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SB-6-10.0	1506A62-006A	Soil	06/24/201	15 15:25 ICP-JY	106789
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Lead	7.1		5.0	1	06/26/2015 15:28
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	102		70-130		06/26/2015 15:28



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3550B
Date Received:	6/24/15 20:51	Analytical Method:	SW8015B
Date Prepared:	6/24/15	Unit:	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/2015 13:35	GC11A	106762
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/26/2015 13:20
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/26/2015 13:20
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>		
C9	148	S	70-130		06/26/2015 13:20
<u>Analyst(s):</u> TK			Analytical Comments: c	:11	
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-6.0	1506A62-002A	Soil	06/24/2015 13:45	GC11A	106762
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/26/2015 14:29
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/26/2015 14:29
<u>Surrogates</u>	<u>REC (%)</u>		Limits		
C9	102		70-130		06/26/2015 14:29
Analyst(s): TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-4-10.0	1506A62-003A	Soil	06/24/2015 13:55	GC11A	106762
Analytes	Result		<u>RL DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/26/2015 15:38
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/26/2015 15:38
Surrogates	<u>REC (%)</u>		Limits		
C9	101		70-130		06/26/2015 15:38
<u>Analyst(s):</u> TK					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3550B
Date Received:	6/24/15 20:51	Analytical Method:	SW8015B
Date Prepared:	6/24/15	Unit:	mg/Kg

Total Extractable Petroleum Hydrocarbons w/out SG Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-6-3.0	1506A62-004A	Soil	06/24/2015 15:05	GC9a	106790
Analytes	<u>Result</u>		<u>RL DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/25/2015 17:59
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/25/2015 17:59
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	108		70-130		06/25/2015 17:59
<u>Analyst(s):</u> TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-6-6.0	1506A62-005A	Soil	06/24/2015 15:15	GC11A	106790
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/26/2015 07:37
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/26/2015 07:37
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		06/26/2015 07:37
Analyst(s): TK					
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB-6-10.0	1506A62-006A	Soil	06/24/2015 15:25	GC11A	106790
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
TPH-Diesel (C10-C23)	ND		1.0 1		06/26/2015 09:54
TPH-Motor Oil (C18-C36)	ND		5.0 1		06/26/2015 09:54
Surrogates	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		06/26/2015 09:54
<u>Analyst(s):</u> TK					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106771
Date Analyzed:	6/24/15 - 6/25/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A
Matrix:	Soil	Unit:	mg/kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106771 1506A43-007AMS/MSD

QC Summary Report for SW8081A							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aldrin	ND	0.0415	0.0010	0.050	_	83	70-130
a-BHC	ND	-	0.0010	-	-	-	-
b-BHC	ND	-	0.0010	-	-	-	-
d-BHC	ND	-	0.0010	-	-	-	-
g-BHC	ND	0.0473	0.0010	0.050	-	95	70-130
Chlordane (Technical)	ND	-	0.025	-	-	-	-
a-Chlordane	ND	-	0.0010	-	-	-	-
g-Chlordane	ND	-	0.0010	-	-	-	-
p,p-DDD	ND	-	0.0010	-	-	-	-
p,p-DDE	ND	-	0.0010	-	-	-	-
p,p-DDT	ND	0.0352	0.0010	0.050	-	70	70-130
Dieldrin	ND	0.0509	0.0010	0.050	-	102	70-130
Endosulfan I	ND	-	0.0010	-	-	-	-
Endosulfan II	ND	-	0.0010	-	-	-	-
Endosulfan sulfate	ND	-	0.0010	-	-	-	-
Endrin	ND	0.0428	0.0010	0.050	-	85	70-130
Endrin aldehyde	ND	-	0.0010	-	-	-	-
Endrin ketone	ND	-	0.0010	-	-	-	-
Heptachlor	ND	0.0410	0.0010	0.050	-	82	70-130
Heptachlor epoxide	ND	-	0.0010	-	-	-	-
Hexachlorobenzene	ND	-	0.010	-	-	-	-
Hexachlorocyclopentadiene	ND	-	0.020	-	-	-	-
Methoxychlor	ND	-	0.0010	-	-	-	-
Toxaphene	ND	-	0.050	-	-	-	-
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	-	0.050	-	-	-	-
Surrogate Recovery							
Decachlorobiphenyl	0.0608	0.0579		0.050	122	116	70-130



McCampbell Analytical, Inc. "When Quality Counts"

Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106771
Date Analyzed:	6/24/15 - 6/25/15	Extraction Method:	SW3550B
Instrument:	GC22	Analytical Method:	SW8081A
Matrix:	Soil	Unit:	mg/kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106771 1506A43-007AMS/MSD

QC Summary Report for SW8081A

		•							
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aldrin	NR	NR		ND<0.01	NR	NR	-	NR	
g-BHC	NR	NR		ND<0.01	NR	NR	-	NR	
p,p-DDT	NR	NR		ND<0.01	NR	NR	-	NR	
Dieldrin	NR	NR		ND<0.01	NR	NR	-	NR	
Endrin	NR	NR		ND<0.01	NR	NR	-	NR	
Heptachlor	NR	NR		ND<0.01	NR	NR	-	NR	
Surrogate Recovery									
Decachlorobiphenyl	NR	NR			NR	NR	-	NR	

QA/QC Officer Page 13 of 21



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106784
Date Analyzed:	6/25/15	Extraction Method:	SW5030B
Instrument:	GC7	Analytical Method:	SW8021B/8015Bm
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106784 1506A51-002AMS/MSD

QC Summary Report for SW8021B/8015Bm									
Analyte	MB Result	LCS Result		RL	SPK Val	M I %	B SS LC REC %F	S REC	LCS Limits
TPH(btex)	ND	0.539		0.40	0.60	-	90		70-130
МТВЕ	ND	0.108		0.050	0.10	-	99		70-130
Benzene	ND	0.113		0.0050	0.10	-	11:	3	70-130
Toluene	ND	0.110		0.0050	0.10	-	11(C	70-130
Ethylbenzene	ND	0.116		0.0050	0.10	-	110	6	70-130
Xylenes	ND	0.353		0.0050	0.30	-	118	3	70-130
Surrogate Recovery									
2-Fluorotoluene	0.112	0.118			0.10	11	3 11	7	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.487	0.491	0.60	ND	81	82	70-130	0.696	20
МТВЕ	0.103	0.106	0.10	ND	103	106	70-130	3.05	20
Benzene	0.0997	0.0992	0.10	ND	100	99	70-130	0.491	20
Toluene	0.0985	0.0978	0.10	ND	98	98	70-130	0	20
Ethylbenzene	0.103	0.102	0.10	ND	103	102	70-130	0.598	20
Xylenes	0.317	0.314	0.30	ND	106	104	70-130	1.20	20
Surrogate Recovery									
2-Fluorotoluene	0.106	0.103	0.10		106	103	70-130	2.71	20

QA/QC Officer Page 14 of 21



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106789
Date Analyzed:	6/26/15	Extraction Method:	SW3050B
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106789 1506A62-006AMS/MSD

	QC Summary Report for Lead										
Analyte	MB Result	LCS Result		RL	SPK Val	M %	B SS REC	LCS %REC	LCS Limits		
Lead	ND	49.8		5.0	50	-		100	75-125		
Surrogate Recovery											
Tb 350.917	506	529			500	10)1	106	70-130		
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MS Limits	SD RPD	RPD Limit		
Lead	54.9	58.6	50	7.102	96	103	75-125	5 6.57	25		
Surrogate Recovery											
Tb 350.917	511	534	500		102	107	70-130) 4.45	20		





Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106762
Date Analyzed:	6/25/15	Extraction Method:	SW3550B
Instrument:	GC6A, GC6B	Analytical Method:	SW8015B
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106762 1506A33-004AMS/MSD

QC Report for SW8015B w/out SG Clean-Up										
Analyte	MB Result	LCS Result		RL	SPK Val	MI %	B SS REC	LCS %REC	L 2 L	LCS Limits
TPH-Diesel (C10-C23)	ND	41.2		1.0	40	-		103	7	70-130
TPH-Motor Oil (C18-C36)	ND	-		5.0	-	-		-	-	
Surrogate Recovery										
C9	26.6	24.0			25	10	6	96	7	70-130
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/I Limi	MSD ts	RPD	RPD Limit
TPH-Diesel (C10-C23)	40.3	40.0	40	ND	101	100	70-1	30	0.567	30
Surrogate Recovery										
C9	25.8	25.8	25		103	103	70-1	30	0	30



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	106790
Date Analyzed:	6/25/15	Extraction Method:	SW3550B
Instrument:	GC2B, GC6B	Analytical Method:	SW8015B
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-106790 1506A62-004AMS/MSD

QC Report for SW8015B w/out SG Clean-Up										
Analyte	MB Result	LCS Result		RL	SPK Val	MI %	B SS REC	LCS %REC	LCS Limits	
TPH-Diesel (C10-C23)	ND	37.6		1.0	40	-		94	70-130	
TPH-Motor Oil (C18-C36)	ND	-		5.0	-	-		-	-	
Surrogate Recovery										
C9	26.4	20.0			25	10	6	80	70-130	
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/N Limit	ISD R	PD RPD Limit	
TPH-Diesel (C10-C23)	35.6	37.1	40	ND	89	93	70-13	30 4.	11 30	
Surrogate Recovery										
C9	26.9	27.0	25		108	108	70-13	30 0	30	

QA/QC Officer Page 17 of 21

McCampbell Analytical, Inc.



1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-9262				W	orkO	rder: 1	1506A6	2	Clie	ntCo	de: ARSB	5				
	□WaterTrax	WriteOn	EDF	E	xcel		EQuIS	✓	Email		HardCopy	T	hirdParty	[J-flag	J
Report to:					Bi	l to:					Re	questec	I TAT:		5 da	ays
Michael F. Kara Applied Remedial Services, Inc P.O. Box 5086 Walnut Creek, CA 94596-1086 707-748-4205 FAX: 707-74	Email: cc/3rd Party: PO: ProjectNo: 8-4207	mmkara707@a #15-34-001; 94	ol.com th + International			Accour Applie P.O. B Walnu	nts Paya d Reme ox 5086 t Creek,	able dial Se 3 , CA 94	rvices, I 596-108	nc. 36	Da Da	te Rec te Prir	eived: uted:	00	6/24/2(6/24/2()15)15
				[Re	quested	Tests	(See legend	d below)			
Lab ID C	lient ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9 1	0	11	12
Г																

1506A62-001	SB-4-3.0	Soil	6/24/2015 13:35	А	Α	Α	A			
1506A62-002	SB-4-6.0	Soil	6/24/2015 13:45		А	Α	A			
1506A62-003	SB-4-10.0	Soil	6/24/2015 13:55		А	Α	A			
1506A62-004	SB-6-3.0	Soil	6/24/2015 15:05	Α	Α	Α	A			
1506A62-005	SB-6-6.0	Soil	6/24/2015 15:15		А	Α	A			
1506A62-006	SB-6-10.0	Soil	6/24/2015 15:25		Α	Α	A			

Test Legend:

1	8081_S
6	
11	

2	G-MBTEX_S
7	
12	

3	PB_S
8	

4	TPH(DMO)_S
9	

5	
10	

Prepared by: Agustina Venegas

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: APPLIED REMEDIAL SERVICES, INC. **Project:** #15-34-001; 94th + International

Comments:

Client Contact: Michael F. Kara Contact's Email: mmkara707@aol.com

OC Level: LEVEL 2

Work Order: 1506A62 **Date Received:** 6/24/2015

		WaterTrax	WriteOn	EDF	Excel	_Fax y Email	HardC	opyThirdPar	ty 🗌	J-flag
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	ТАТ	Sediment Hold SubOut Content
1506A62-001A	SB-4-3.0	Soil	SW6010B (Lea	ad)	1	Stainless Tube		6/24/2015 13:35	5 days	
			Multi-Range T	PH(g,d,mo)					5 days	
			SW8081A (OC	Pesticides)					5 days	
1506A62-002A	SB-4-6.0	Soil	Multi-Range T	PH(g,d,mo)	1	Stainless Tube		6/24/2015 13:45	5 days	
			SW6010B (Lea	ad)					5 days	
1506A62-003A	SB-4-10.0	Soil	Multi-Range T	PH(g,d,mo)	1	Stainless Tube		6/24/2015 13:55	5 days	
			SW6010B (Lea	ad)					5 days	
1506A62-004A	SB-6-3.0	Soil	Multi-Range T	PH(g,d,mo)	1	Stainless Tube		6/24/2015 15:05	5 days	
			SW6010B (Lea	ad)					5 days	
			SW8081A (OC	Pesticides)					5 days	
1506A62-005A	SB-6-6.0	Soil	Multi-Range T	PH(g,d,mo)	1	Stainless Tube		6/24/2015 15:15	5 days	
			SW6010B (Lea	ad)					5 days	
1506A62-006A	SB-6-10.0	Soil	Multi-Range T	PH(g,d,mo)	1	Stainless Tube		6/24/2015 15:25	5 days	
			SW6010B (Lea	ad)					5 days	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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	Telephone: (877) 252-9262 / Fax: (925) 252-9269			GeoTracker EDF PDF EDD Write On (DW) EQuIS 10 DAY																															
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SAMPLE ID	Field Point Name	Date	Time	ontaine	nd Wate	e Water	king Wat	Water			ŝe			6		HdT & X	as Diesel	Petroleur	Petroleur	E / BTEX	205/ 608 /	608 / 8082	507 / 814	515 / 815	524.2 / 62	525.2 / 62	8270 SIN	17 Metal	r 5 Metal	ls (200.8 /	sample f	M-H	head		
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SB-4-6.0			1345	1																												×	×		
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Page 20 of 21



Sample Receipt Checklist

Client Name:	ient Name: Applied Remedial Services, Inc.					Date and Time Received: 6/24/2015 8:51:03 PM				
Project Name:	#15-34-001; 94tl	n + International			LogIn Revi	ewed by:	Agustina Venegas			
WorkOrder №:	1506A62	Matrix: <u>Soil</u>			Carrier:	Client Drop-In				
		Chain of C	ustody	/ (COC) li	nformation					
Chain of custody	present?		Yes	✓	No 🗌					
Chain of custody	signed when relin	quished and received?	Yes	✓	No 🗌					
Chain of custody	agrees with samp	le labels?	Yes	✓	No 🗌					
Sample IDs note	d by Client on CO	C?	Yes	✓	No 🗌					
Date and Time of	f collection noted b	by Client on COC?	Yes	✓	No 🗌					
Sampler's name	noted on COC?		Yes	✓	No 🗌					
Sample Receipt Information										
Custody seals int	act on shipping co	ontainer/cooler?	Yes		No 🗌		NA 🗹			
Shipping containe	er/cooler in good c	ondition?	Yes	✓	No 🗌					
Samples in prope	er containers/bottle	es?	Yes	✓	No 🗌					
Sample containe	rs intact?		Yes	✓	No 🗌					
Sufficient sample	volume for indica	ted test?	Yes	✓	No 🗌					
		Sample Preservation	on and	Hold Tin	ne (HT) Info	rmation				
All samples recei	ved within holding	time?	Yes	✓	No					
Sample/Temp Bl	ank temperature			Temp:	4.1°C					
Water - VOA vial	s have zero heads	pace / no bubbles?	Yes		No 🗌		NA 🗹			
Sample labels ch	ecked for correct	preservation?	Yes	✓	No 🗌					
pH acceptable up	oon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹			
Samples Receive	ed on Ice?		Yes	✓	No					
		(Ice Type	e: WE	TICE))					
UCMR3 Samples Total Chlorine	: ested and accept	able upon receipt for EPA 522?	Yes		No					
Free Chlorine t 300.1, 537, 539	ested and accepta	ble upon receipt for EPA 218.7,	Yes		No 🗌		NA 🗹			

* NOTE: If the "No" box is checked, see comments below.

Comments:



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1506A62 A
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	#15-34-001; 94th + International
Project Received:	06/24/2015

Analytical Report reviewed & approved for release on 07/02/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
Project:	#15-34-001; 94th + International
WorkOrder:	1506A62

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

 S
 spike recovery outside accepted recovery limits

 c11
 The surrogate recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data has been reported.



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3050B
Date Received:	6/24/15 20:51	Analytical Method:	SW6020
Date Prepared:	6/24/15	Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/201	15 13:35 ICP-MS2	107000
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Antimony	ND		0.50	1	06/30/2015 13:52
Arsenic	8.0		0.50	1	06/30/2015 13:52
Barium	230		5.0	1	06/30/2015 13:52
Beryllium	0.70		0.50	1	06/30/2015 13:52
Cadmium	ND		0.25	1	06/30/2015 13:52
Chromium	56		0.50	1	06/30/2015 13:52
Cobalt	7.2		0.50	1	06/30/2015 13:52
Copper	36		0.50	1	06/30/2015 13:52
Mercury	0.055		0.050	1	06/30/2015 13:52
Molybdenum	ND		0.50	1	06/30/2015 13:52
Nickel	43		0.50	1	06/30/2015 13:52
Selenium	ND		0.50	1	06/30/2015 13:52
Silver	ND		0.50	1	06/30/2015 13:52
Thallium	ND		0.50	1	06/30/2015 13:52
Vanadium	58		0.50	1	06/30/2015 13:52
Zinc	62		5.0	1	06/30/2015 13:52
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	99		70-130		06/30/2015 13:52
Analyst(s): DVH					



Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Project:	#15-34-001; 94th + International	Extraction Method:	SW3050B
Date Received:	6/24/15 20:51	Analytical Method:	SW6020
Date Prepared:	6/24/15	Unit:	mg/Kg

CAM / CCR 17 Metals

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
SB-6-6.0	1506A62-005A	Soil	06/24/201	15 15:15 ICP-MS2	107000
<u>Analytes</u>	Result		<u>RL</u>	DF	Date Analyzed
Antimony	ND		0.50	1	06/30/2015 13:58
Arsenic	8.1		0.50	1	06/30/2015 13:58
Barium	290		5.0	1	06/30/2015 13:58
Beryllium	0.71		0.50	1	06/30/2015 13:58
Cadmium	ND		0.25	1	06/30/2015 13:58
Chromium	64		0.50	1	06/30/2015 13:58
Cobalt	12		0.50	1	06/30/2015 13:58
Copper	41		0.50	1	06/30/2015 13:58
Mercury	0.055		0.050	1	06/30/2015 13:58
Molybdenum	0.52		0.50	1	06/30/2015 13:58
Nickel	55		0.50	1	06/30/2015 13:58
Selenium	ND		0.50	1	06/30/2015 13:58
Silver	ND		0.50	1	06/30/2015 13:58
Thallium	ND		0.50	1	06/30/2015 13:58
Vanadium	62		0.50	1	06/30/2015 13:58
Zinc	75		5.0	1	06/30/2015 13:58
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	110		70-130		06/30/2015 13:58
<u>Analyst(s):</u> DVH					



McCampbell Analytical, Inc. "When Quality Counts"

Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	107000
Date Analyzed:	6/30/15	Extraction Method:	SW3050B
Instrument:	ICP-MS2	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-107000 1506A62-006AMS/MSD

QC Summary Report for Metals										
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits			
Antimony	ND	49.2	0.50	50	-	98	75-125			
Arsenic	ND	51.2	0.50	50	-	102	75-125			
Barium	ND	508	5.0	500	-	102	75-125			
Beryllium	ND	48.8	0.50	50	-	98	75-125			
Cadmium	ND	48.7	0.25	50	-	97	75-125			
Chromium	ND	50.8	0.50	50	-	102	75-125			
Cobalt	ND	48.5	0.50	50	-	97	75-125			
Copper	ND	52.1	0.50	50	-	104	75-125			
Lead	ND	50.7	0.50	50	-	101	75-125			
Mercury	ND	1.21	0.050	1.25	-	97	75-125			
Molybdenum	ND	48.8	0.50	50	-	98	75-125			
Nickel	ND	51.8	0.50	50	-	104	75-125			
Selenium	ND	54.0	0.50	50	-	108	75-125			
Silver	ND	48.3	0.50	50	-	97	75-125			
Thallium	ND	45.8	0.50	50	-	92	75-125			
Vanadium	ND	51.1	0.50	50	-	102	75-125			
Zinc	ND	512	5.0	500	-	102	75-125			
Surrogate Recovery										
Terbium	503	497		500	101	99	70-130			



McCampbell Analytical, Inc. "When Quality Counts"

Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	6/24/15	BatchID:	107000
Date Analyzed:	6/30/15	Extraction Method:	SW3050B
Instrument:	ICP-MS2	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/Kg
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-107000 1506A62-006AMS/MSD

QC Summary Report for Metals										
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit	
Antimony	48.2	46.9	50	ND	96	93	75-125	2.57	20	
Arsenic	57.7	59.3	50	6.275	103	106	75-125	2.77	20	
Barium	708	702	500	189.0	104	103	75-125	0.922	20	
Beryllium	46.5	46.0	50	0.5584	92	91	75-125	1.08	20	
Cadmium	50.4	49.1	50	ND	100	98	75-125	2.57	20	
Chromium	110	114	50	59.64	101	109	75-125	3.66	20	
Cobalt	54.3	55.0	50	13.00	83	84	75-125	1.24	20	
Copper	80.5	82.7	50	31.77	98	102	75-125	2.68	20	
Lead	57.8	58.6	50	8.130	99	101	75-125	1.46	20	
Mercury	1.39	1.27	1.25	0.1196	102	92	75-125	9.32	20	
Molybdenum	49.5	48.5	50	ND	98	96	75-125	2.06	20	
Nickel	124	127	50	77.44	92	100	75-125	2.87	20	
Selenium	51.2	51.7	50	ND	102	103	75-125	0.894	20	
Silver	49.5	48.2	50	ND	99	96	75-125	2.54	20	
Thallium	46.5	46.0	50	ND	93	92	75-125	1.10	20	
Vanadium	93.2	100	50	41.63	103	117	75-125	7.26	20	
Zinc	570	571	500	64.03	101	101	75-125	0	20	
Surrogate Recovery										
Terbium	508	496	500		102	99	70-130	2.39	20	

_QA/QC Officer Page 6 of 9

Lab ID Clien	t ID	Matrix	Collection Date	Hold	1	2	3	4	4uesieu 5	6	7	8	9	10	11	12
								Po	auested	Tosts	(See lege	nd ho	low)			
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P.O. Box 5086	PO:	45 04 004 0	446 - 1 - 1			P.O. Box	x 5086		1500 40	00	Date Add-On:				06/30/2	2015
Applied Remedial Services, Inc.	cc/3rd Party:			Applied Remedial Services, Inc. Date R				Received	:	06/24/2	2015					
Michael F. Kara	Email:	ail: mmkara707@aol.com			Accounts Pavable						Requested FAT.			•	50	Jays
Report to:					Ri	ll to:						20010			5 /	dave
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Pittsburg, CA 94565-1701 (925) 252-9262				Wor	kOrd	ler: 150	6A62	A	Cli	ientCo	ode: ARS	SB				
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1506A62-001	SB-4-3.0	Soil	6/24/2015 13:35	А					
1506A62-005	SB-6-6.0	Soil	6/24/2015 15:15	А					
1506A62-006	SB-6-10.0	Soil	6/24/2015 15:25	А					

Test Legend:

1	CAM17MS_S
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Prepared by: Agustina Venegas

Add-On Prepared By: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: APPLIED REMEDIAL SERVICES, INC.

Project: #15-34-001; 94th + International

Comments: CAM17 added to 001 and 005 added 6/30/15 2D TAT

QC Level: LEVEL 2 Client Contact: Michael F. Kara Contact's Email: mmkara707@aol.com Work Order: 1506A62 Date Received: 6/24/2015 Date Add-On: 6/30/2015

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Hold SubOut Content
1506A62-001A	SB-4-3.0	Soil	SW6020 (CAM 17) <antimony, arsenic,<br="">Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc></antimony,>	1	Stainless Tube	6/24/2015 13:35	1 day	
1506A62-005A	SB-6-6.0	Soil	SW6020 (CAM 17) <antimony, arsenic,<br="">Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc></antimony,>	1	Stainless Tube	6/24/2015 15:15	1 day	
1506A62-006A	SB-6-10.0	Soil	SW6020 (CAM 17)	1	Stainless Tube	6/24/2015 15:25	5 days	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.
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| 58-6-3.0 | | 6/24 | 1505 | 1 | | | | | X | | | | + | | _ | | | | | | X | | | | | | | | | | | × | X | | |
| 58-6-60 | | | 1515 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | X | 8 | R | |
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

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Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/10/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

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MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
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SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e7	oil range compounds are significant

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.
Project:	94th & International
Date Received:	7/2/15 17:52

Date Prepared: 7/6/15

WorkOrder:	1507086
Extraction Method:	CA Title 22
Analytical Method:	SW6010B
Unit:	mg/L

STLC Metals

Client ID	Lab ID	Matrix	Date Collected	d Instrument	Batch ID
SB2-2'	1507086-004A	Soil	07/02/2015 10:2	0 ICP-JY	107237
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	19		0.20 1		07/09/2015 14:46

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Col	lected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/2015	5 11:10 ICP-JY	107237
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Lead	5.8		0.20	1	07/09/2015 14:49

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Collecte	d Instrument	Batch ID
SB5-2'	1507086-010A	Soil	07/02/2015 13:4	40 ICP-JY	107237
Analytes	Result		<u>RL</u> DF		Date Analyzed
Lead	2.2		0.20 1		07/09/2015 14:51

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Colle	ected Instrument	Batch ID
SB7-2'	1507086-013A	Soil	07/02/2015	13:00 ICP-JY	107237
Analytes	Result		RL	DF	Date Analyzed
Lead	3.2		0.20	1	07/09/2015 14:53



Client:	Applied Remedial Services, Inc.
Project:	94th & International
Date Received:	7/2/15 17:52

Date Prepared: 7/6/15

WorkOrder:	1507086
Extraction Method:	CA Title 22
Analytical Method:	SW6010B
Unit:	mg/L

STLC Metals

Client ID	Lab ID	Matrix	Date Collecte	d Instrument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/2015 10:4	15 ICP-JY	107237
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	6.8		0.20 1		07/09/2015 14:56





Client:Applied Remedial Services, Inc.Project:94th & InternationalDate Received:7/2/15 17:52

Date Prepared: 7/7/15

 WorkOrder:
 1507086

 Extraction Method:
 SW1311/SW3010

 Analytical Method:
 SW6010B

 Unit:
 mg/L

TCLP Metals

Client ID	Lab ID	Matrix	Date Collected Ir	strument Batch ID
SB2-2'	1507086-004A	Soil	07/02/2015 10:20 IC	P-JY 107320
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Lead	ND		0.20 1	07/09/2015 10:54

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Col	lected Instrument	Batch ID
SB3-2'	1507086-007A	Soil	07/02/2015	5 11:10 ICP-JY	107320
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Lead	0.36		0.20	1	07/09/2015 10:57

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Collect	ed Instrument	Batch ID
SB5-2'	1507086-010A	Soil	07/02/2015 13:	40 ICP-JY	107320
<u>Analytes</u>	<u>Result</u>		<u>RL DF</u>		Date Analyzed
Lead	ND		0.20 1		07/09/2015 10:59

Analyst(s): BBO

Client ID	Lab ID	Matrix	Date Coll	ected Instrument	Batch ID
SB8-2'	1507086-016A	Soil	07/02/2015	10:45 ICP-JY	107320
<u>Analytes</u>	Result		<u>RL</u>	DF	Date Analyzed
Lead	ND		0.20	1	07/09/2015 11:02



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/6/15	BatchID:	107237
Date Analyzed:	7/9/15	Extraction Method:	CA Title 22
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107237 1507125-001AMS/MSD

QC Summary Report for Metals (STLC)									
Analyte	MB Result	LCS Result		RL	SPK Val	M %	B SS LO REC %	CS REC	LCS Limits
Lead	ND	0.866		0.20	1	-	87	7	75-125
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits) RPD	RPD Limit
Lead	NR	NR	1	12.53	NR	NR	70-130	NR	30

QA/QC Officer Page 6 of 11



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/7/15	BatchID:	107320
Date Analyzed:	7/9/15	Extraction Method:	SW1311/SW3010
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107320 1505274-001AMS/MSD

QC Summary Report for Metals (TCLP)									
Analyte	MB Result	LCS Result		RL	SPK Val	M	B SS LCS REC %R	S EC	LCS Limits
Lead	ND	0.974		0.20	1	-	97		75-125
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	1.07	1.10	1	ND	107	110	70-130	3.22	30

QA/QC Officer Page 7 of 11

McCampbell Analytical, Inc.

SB5-2'

SB7-2'

SB8-2'

Soil

Soil

Soil



1534 Willow Pass Rd Pittsburg, CA 94565-1701

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 25	52-9262				Wa	orkOr	der: 15	507086	Α	Clie	entC	ode: ARS	B				
		WaterTrax	WriteO	n 🗌 EDF	E	Excel		Fax	✓	Email	[HardCop	у [ThirdF	Party	J-fla	g
Report to:						В	ill to:					F	Reque	sted TA	Г:	5	days
Michael F. Ka Applied Remo P.O. Box 508 Walnut Creek 707-748-4205	ara edial Services, Inc. 36 k, CA 94596-1086 FAX: 707-748-4207	Email: mi cc/3rd Party: PO: ProjectNo: 94	mkara707@a th & Internat	iol.com			Accour Applied P.O. B Walnu	nts Pay d Reme ox 508 t Creek	vable edial Sei 6 k, CA 94	⁻vices, lı 596-108	nc. 86	1	Date 1 Date 1 Date 1	Receive Add-On Printed:	d: :	07/02/2 07/06/2 07/10/2	2015 2015 2015
									Rec	uested [·]	Tests	(See leger	nd bel	ow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1507086-004	SB2-2'		Soil	7/2/2015 10:20		А	А										
1507086-007	SB3-2'		Soil	7/2/2015 11:10		А	А										

А

А

А

А

А

7/2/2015 13:40

7/2/2015 13:00

7/2/2015 10:45

Test Legend:

1507086-010

1507086-013

1507086-016

1 STLC_PB_S	2 TCLP_PB_S	3	4	5
6	7	8	9	10
11	12			

Prepared by: Erika Santos

Add-On Prepared By: Jena Alfaro

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

WORK ORDER SUMMARY

Client Name:	APPLIED REMED	IAL SERVICES, INC	2.	QC Level: LEVEL 2			Wo	rk Order:	1507086	
Project:	94th & Internationa	ıl	(Client Contact: Michael F	. Kara		Date	Received:	7/2/2015	
Comments:	Pb STLC: 1507086-0 7/6/15 5D TAT. 001	01A, -004A, -007A, -02 Not enough sample rem	10A, -013A, -016A. Co aining for anything!	ontact's Email: mmkara70	07@aol.com		Date	e Add-On:	7/6/2015	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Collection Date & Time	ТАТ	Sediment Content	Hold SubOut	
1507086-004A	SB2-2'	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	7/2/2015 10:20	1 day*			
			SW6010B (Lead) (STLC)				1 day*			
1507086-007A	SB3-2'	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	7/2/2015 11:10	1 day*			
			SW6010B (Lead) (STLC)				1 day*			
1507086-010A	SB5-2'	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	7/2/2015 13:40	1 day*			
			SW6010B (Lead) (STLC)				1 day*			
1507086-013A	SB7-2'	Soil	SW6010B (Lead) (STLC)	1	Acetate Liner	7/2/2015 13:00	1 day*			
1507086-016A	SB8-2'	Soil	SW6010B (Lead) (TCLP)	1	Acetate Liner	7/2/2015 10:45	1 day*			
			SW6010B (Lead) (STLC)				1 day*			

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701 Website: <u>www.mccampbell.com</u> Email: main@mccampbell.com Telephone: (877) 252-9262 Fax: (925) 252-9269 .									Г (ruf Geo'	RN . Tra	AR	OU ou	CH.	AI) T 7 (OF E PD Ch	F C		ST SH Ex	OI 24 ccel le is	DY HR	R	EC 481 Wrint an	CO HR ite	On	D 72 H 1 (D flag	R 5 DAY W)						
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MICRO ANALYTICAL LABORATORIES, INC. BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1004 Erika Santos 1534 Willow Pass Road Pittsburg, CA 945646-1701

PROJECT: 94TH & INTERNATIONAL ACCT NO. A31409

Micro Log In

208051

Total Samples Date Sampled 07/02/2015 Date Received 07/07/2015 Date Analyzed 07/07/2015

8

	SAMPLE ID	ENTIFICATION	QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client #:	SB	1-2'		
Micro #: 2 SOIL	208051-01	Analyst: MO	SOIL: NONE DETECTED	
				NEW. CLAT, NOCKTANIMENTS.
Client #:	SB	2-2'		
Micro #: 2	208051-02	Analyst: MO	SOIL: NONE DETECTED	
SOIL				NFM: CLAY, ROCK FRAGMENTS.
Client #:	SB	2-6'		
Micro #: 2	208051-03	Analyst: MO	SOIL: NONE DETECTED	
				NFM: CLAY, ROCK FRAGMENTS.
Client #:	SB	3-2'		
Micro #: 2	08051-04	Analyst: MO	SOIL: NONE DETECTED	
				NFM: CLAY, ROCK FRAGMENTS.
Client #:	SB	5-2'		
Micro #: 2	08051-05	Analyst: MO BK	SOIL: NONE DETECTED	
SUIL				NFM: CLAY, ROCK FRAGMENTS.

Technical Supervisor: 7/7/2015 Date Reported Gamini Ranatunga, Ph.D.

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection detected prevent determination of some optical properties. Tremolite-asbestos or material dependent. Detection limit is material dependent. Detection limit is native; non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchtel, and sbestos; however, reliable determination of asbestos is networked materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for any reported

ACRECTOC INCODMATION

MICRO ANALYTICAL LABORATORIES, INC. BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1004 Erika Santos 1534 Willow Pass Road Pittsburg, CA 945646-1701

PROJECT: 94TH & INTERNATIONAL **ACCT NO. A31409**

Micro Log In

Total Samples

Date Sampled 07/02/2015 Date Received 07/07/2015 Date Analyzed 07/07/2015

ASBESTOS INFORMATION DOMINANT OTHER MATERIALS SAMPLE IDENTIFICATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES Client #: SB7-2' Micro #: 208051-06 SOIL: NONE DETECTED Analyst: MO SOIL NFM: CLAY, ROCK FRAGMENTS. Client #: SB9-2 Micro #: 208051-07 SOIL: NONE DETECTED Analyst: MO SOIL NFM: CLAY, ROCK FRAGMENTS. Client #: SB9-6 Micro #: 208051-08 SOIL: NONE DETECTED Analyst: MO SOIL NFM: CLAY, ROCK FRAGMENTS.

Technical Supervisor: 7/7/2015 Gamini Ranatunga, Ph.D. Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insultion Samples (1982), and EPA-600/R93-116((1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be condusively established by PLM, and should be confirmed by PLM, asbestos with diameter below ~1 µm may not be detected by PLM. Asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" inchterite and winchte), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction materials (brows and non-fibrous) are listed. This analysis shall not be conclusively estimation is other than asbestos. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are nanelyzed separately when feasible; if asbestos in detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a resolute of individual layers. Interlayer contamination is possible afont on busites asbestos induces and provide analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a

208051



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1506A62 B
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	#15-34-001; 94th + International
Project Received:	06/24/2015

Analytical Report reviewed & approved for release on 07/06/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
Project:	#15-34-001; 94th + International
WorkOrder:	1506A62

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

 S
 spike recovery outside accepted recovery limits

 c11
 The surrogate recovery is above the upper control limit. The target analyte(s) were Not Detected (ND); therefore, the data has been reported.



Client:Applied Remedial Services, Inc.Project:#15-34-001; 94th + International

Date Received: 6/24/15 20:51

Date Prepared: 7/4/15

WorkOrder:1506A62Extraction Method:CA Title 22Analytical Method:SW6010BUnit:mg/L

STLC Metals

Client ID	Lab ID	Matrix/ExtType	Date Co	ollected Instrument	Batch ID
SB-4-3.0	1506A62-001A	Soil	06/24/20	15 13:35 ICP-JY	107167
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Chromium	0.090		0.050	1	07/06/2015 11:10

Analyst(s): BBO

Client ID	Lab ID	Matrix/ExtType	Date Co	ollected Instrument	Batch ID
SB-6-6.0	1506A62-005A	Soil	06/24/20	15 15:15 ICP-JY	107167
Analytes	Result		<u>RL</u>	DF	Date Analyzed
Chromium	0.10		0.050	1	07/06/2015 11:13

Analyst(s): BBO

Angela Rydelius, Lab Manager



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1506A62
Date Prepared:	7/4/15	BatchID:	107167
Date Analyzed:	7/6/15	Extraction Method:	CA Title 22
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	#15-34-001; 94th + International	Sample ID:	MB/LCS-107167 1507067-006AMS/MSD

QC Summary Report for Metals (STLC)												
Analyte	MB Result	LCS Result		RL	SPK Val	M	BSSL REC %	-CS %REC	LCS Limits			
Chromium	ND	1.03		0.050	1	-	1	02	75-125			
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MS Limits	D RPI	D RPD Limit			
Chromium	1.07	1.10	1	0.076	99	102	70-130	2.22	2 30			

QA/QC Officer Page 4 of 7

McCampb 1534 Willow Pittsburg, C	MCCampbell Analytical, Inc. 1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262						F-CU	STODY B cli	RECO entCode: A	RD arsb	Pa	ige 1 of	f 1	
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Report to:	Report to:									Req	uested TAT:		5 day	s
Michael F. Kara Applied Remedia P.O. Box 5086	al Services, Inc.	Email: mm cc/3rd Party: PO:	kara707@ad	ol.com		Acco Appli P.O.	unts Paya ed Remeo Box 5086	ible dial Services, I	nc.	Dat Dat	te Received: te Add-On:	06/2 07/1	- 24/201 01/201	5 5
Walnut Creek, C 707-748-4205	CA 94596-1086 FAX: 707-748-4207	ProjectNo: #15	-34-001; 94t	h + International		Walr	ut Creek,	CA 94596-108	36	Dat	te Printed:	07/(06/201	5
								Requested	Tests (See le	gend k	pelow)			-
Lab ID	Client ID		Matrix	Collection Date	Hold 1	2	3	4 5	6 7	8	9	10 1 [.]	1 1	2
1506A62-001	SB-4-3.0		Soil	6/24/2015 13:35	A									

6/24/2015 15:15

А

Test Legend:

1506A62-005

				Add-On Prepared By: Jena Alfaro
				Prepared by: Agustina Venegas
11	12			
6	7	8	9	10
1 STLC_METALS_S	2	3	4	5

Comments: CAM17 added to 001 and 005 added 6/30/15 2D TAT. STLC Cr added to 001 and 005 7/1/15 2D TAT

Soil

SB-6-6.0

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

	<u>McCar</u>	mpbell Analy "When Quality Counts	<u>tical, Inc.</u>		1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com							
			WC	ORK ORDE	R SUMM	ARY						
Client Name:	APPLIED REMEDI	AL SERVICES, INC		QC Leve	el: LEVEL 2			Wo	rk Order:	1506A62		
Project:	#15-34-001; 94th + I	nternational		Client Contac	et: Michael F.	Kara		Date	Received:	6/24/2015		
Comments:	CAM17 added to 001 a added to 001 and 005 7	and 005 added 6/30/15 7/1/15 2D TAT	2D TAT. STLC Cr	Contact's Ema	il: mmkara70	7@aol.com		Date	Add-On:	7/1/2015		
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	ТАТ	Sediment Content	Hold SubOut		
1506A62-001A	SB-4-3.0	Soil	SW6010B (Metals) (S	TLC) <chromium></chromium>	1	Stainless Tube	6/24/2015 13:35	2 days*				
1506A62-005A	SB-6-6.0	Soil	SW6010B (Metals) (S	TLC) <chromium></chromium>	1	Stainless Tube	6/24/2015 15:15	2 days*				

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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Page	7	of	7
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 B
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/13/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3sample diluted due to high organic content.d7strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatograme2diesel range compounds are significant; no recognizable patterne7oil range compounds are significant

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.
Project:	94th & International

Date Received: 7/2/15 17:52 **Date Prepared:** 7/8/15

WorkOrder:	1507086
Extraction Method:	CA Title 22
Analytical Method:	SW6010B
Unit:	mg/L

STLC Metals

Client ID	Lab ID	Matrix	Date Collecte	ed Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 09:	45 ICP-JY	107367
<u>Analytes</u>	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	57		0.20 1		07/13/2015 12:10





Client:	Applied Remedial Services, Inc.
Project:	94th & International

Date Received: 7/2/15 17:52

Date Prepared: 7/8/15

WorkOrder: 1507086 Extraction Method: SW1311/SW3010 Analytical Method: SW6010B Unit: mg/L

TCLP Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 09:45	ICP-JY	107357
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	0.97		0.20 1		07/10/2015 10:54

Analyst(s): DB



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/8/15	BatchID:	107367
Date Analyzed:	7/13/15	Extraction Method:	CA Title 22
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107367 1507231-001AMS/MSD

	QC Sun	nmary Ro	eport for	Metals (S'	TLC)				
Analyte	MB Res	LC ult Re	:S sult	RL	SPK Val	≦ M I %∣	BSSLC REC%R	S REC	LCS Limits
Lead	ND	0.9	932	0.20	1	-	93		75-125
Analyte	MS Res	MSI ult Res) SPK ult Val	SPKRei Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	1.01	0.97	0 1	ND	101	97	70-130	3.89	30

QA/QC Officer Page 5 of 9



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/8/15	BatchID:	107357
Date Analyzed:	7/10/15	Extraction Method:	SW1311/SW3010
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107357 1507126-008AMS/MSD

	QC Sun	nmary Rej	port for N	Aetals (TC	CLP)				
Analyte	MB Resi	LCS ult Res	; ult	RL	SPK Val	M %	BSSLC REC%R	S EC	LCS Limits
Lead	ND	0.99	0	0.20	1	-	99		75-125
Analyte	MS Resi	MSD ult Resul	SPK It Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Lead	1.05	0.978	1	ND	105	98	70-130	6.85	30

QA/QC Officer Page 6 of 9

McCampbe	ll Analytical, ass Rd	Inc.			СНи	41N	I-OF	-CL	JST(DDY	RE(CORE)]	Page	1 of	1
Pittsburg, CA 9 (925) 252-9262	94565-1701 2				Wo	rkOro	der: 15	507086	B	Cli	entCod	le: ARSI	B				
		WaterTrax	WriteOn	EDF	E	xcel		Fax	✓	Email		HardCopy		ThirdPa	arty	J-fla	зg
Report to:			Bill to: Re								eques	ted TAT:	5	days			
Michael F. Kara	ol.com			Accou	nts Pay d Reme	able adial Se	rvices	Inc	D	ate R	eceived	07/02/	2015				
P.O. Box 5086		PO:					P.O. B	ox 508	6	1 11000,		D	ate A	dd-On:		07/08/	2015
Walnut Creek, CA 707-748-4205 F	94596-1086 FAX: 707-748-4207	ProjectNo: 94th	a & Internation	onal			Walnu	t Creek	k, CA 9∠	596-10	86	D	ate P	rinted:		07/08/	2015
					Γ				Re	quested	Tests (S	See legend	d belo	w)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1507086-001	SB1-2'		Soil	7/2/2015 9:45		А	Α										<u> </u>

Test Legend:

1 STLC_PB_S	2 TCLP_PB_S	3	4	5
6	7	8	9	10
11	12			

Prepared by: Erika Santos

Add-On Prepared By: Jena Alfaro

Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to **Comments:** 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15

> NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

	<u>McCar</u>	npbell Analy ''When Quality Coun	<u>ytical, Inc.</u> ^{ts"}							
			WO	RK ORI	DER SUMM	ARY				
Client Name:	APPLIED REMEDIA	AL SERVICES, INC	2.	QCI	Level: LEVEL 2			Wa	ork Order:	1507086
Project:	94th & International			Client Co	ntact: Michael F.	Date	Received:	7/2/2015		
Comments:	Pb STLC: 1507086-00 7/6/15 5D TAT. 001 No	1A, -004A, -007A, -02 ot enough sample rem	IOA, -013A, -016A. aining for anything!	Contact's H	E mail: mmkara70	7@aol.com		Date	e Add-On:	7/8/2015
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1507086-001A	SB1-2'	Soil	SW6010B (Lead) (TCL	LP)	1	Acetate Liner	7/2/2015 9:45	1 day*		
			SW6010B (Lead) (STL	.C)				1 day*		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 B
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/10/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client:	Applied Remedial Services, Inc.
---------	---------------------------------

- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3 sample diluted due to high organic content.
d7 strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2 diesel range compounds are significant; no recognizable pattern
e7 oil range compounds are significant

Quality Control Qualifiers

MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Client:	Applied Remedial Services, Inc.
Project:	94th & International

Date Received: 7/2/15 17:52

Date Prepared: 7/8/15

WorkOrder: 1507086 Extraction Method: SW1311/SW3010 Analytical Method: SW6010B Unit: mg/L

TCLP Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
SB1-2'	1507086-001A	Soil	07/02/2015 09:45	ICP-JY	107357
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Lead	0.97		0.20 1		07/10/2015 10:54

Analyst(s): DB





Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/8/15	BatchID:	107357
Date Analyzed:	7/10/15	Extraction Method:	SW1311/SW3010
Instrument:	ICP-JY	Analytical Method:	SW6010B
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107357 1507126-008AMS/MSD

QC Summary Report for Metals (TCLP)											
Analyte	MB Result	LCS Result		RL	SPK Val	M %	B SS LCS REC %R	S EC	LCS Limits		
Lead	ND	0.990		0.20	1	-	99		75-125		
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit		
Lead	1.05	0.978	1	ND	105	98	70-130	6.85	30		



McCampbell Analytical, Inc. 1534 Willow Pass Rd Pittsburg, CA 94565-1701							I-OF		JST(b) DY	RE() P		Page	1 of	1
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Report to:Email: mmkara707@aol.comMichael F. KaraEmail: mmkara707@aol.comApplied Remedial Services, Inc.cc/3rd Party:P.O. Box 5086PO:Walnut Creek, CA 94596-1086ProjectNo: 94th & International707-748-4205FAX: 707-748-4207				ıl.com nal	Bill to: Accounts Payable Applied Remedial Services, Inc. P.O. Box 5086 Walnut Creek, CA 94596-1086					R D D D	Requested TAT: Date Received: Date Add-On: Date Printed:			5 07/02/ 07/08/ 07/08/	days 2015 2015 2015 2015		
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1507086-001	SB1-2'		Soil	7/2/2015 9:45		A	A										

Test Legend:

1	STLC_PB_S	2	TCLP_PB_S	3	4	4	5
6		7		8	9	9	10
11		12]			

Prepared by: Erika Santos

Add-On Prepared By: Jena Alfaro

Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to **Comments:** 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15

> NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

	McCampbell Analytical, Inc. 1534 Willow Pass Road, P. "When Quality Counts" Toll Free Telephone: (877) 252 http://www.mccampbell.com/E http://www.mccampbell.com/E							d, Pittsburg, CA 94565-1701) 252-9262 / Fax: (925) 252-9269 n / E-mail: main@mccampbell.com				
			WO	RK ORI	DER SUMM	ARY						
Client Name:	APPLIED REMEDIA	AL SERVICES, INC	C.	QC I	Level: LEVEL 2			Wo	ork Order:	1507086		
Project:	94th & International Client Contact: Michael F. Kara						Date Received:			7/2/2015		
Comments:	Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TOLD Bth also added to 004.7, 10, 16, 70(15, STL 0, and TCL Bth							e Add-On:	7/8/2015			
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold SubOut		
1507086-001A	SB1-2'	Soil	SW6010B (Lead) (TCI	LP)	1	Acetate Liner	7/2/2015 9:45	1 day*				
			SW6010B (Lead) (STL	LC)				1 day*				

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.
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Website: <u>www.</u>
Telephone: (8' | PBELI
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McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder:	1507086 D
Report Created for:	Applied Remedial Services, Inc.
	P.O. Box 5086 Walnut Creek, CA 94596-1086
Project Contact:	Michael F. Kara
Project P.O.: Project Name:	94th & International
Project Received:	07/02/2015

Analytical Report reviewed & approved for release on 07/15/2015 by:

Angela Rydelius, Laboratory Manager

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Glossary of Terms & Qualifier Definitions

- Client: Applied Remedial Services, Inc.
- **Project:** 94th & International
- **WorkOrder:** 1507086

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 μm filtered and acidified water sample)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
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SPLP	Synthetic Precipitation Leachate Procedure
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3 sample diluted due to high organic content.
a7 reporting limit raised due to limited sample amount
d7 strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2 diesel range compounds are significant; no recognizable pattern
e7 oil range compounds are significant
h4 sulfuric acid permanganate (EPA 3665) cleanup

Glossary of Terms & Qualifier Definitions

Client: Applied Remedial Services, Inc.

Project: 94th & International

WorkOrder: 1507086

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.



Analytical Report

Client:	Applied Remedial Services, Inc.
Project:	94th & International

Date Received: 7/2/15 17:52

Date Prepared: 7/15/15

 WorkOrder:
 1507086

 Extraction Method:
 SW1311/SW3010

 Analytical Method:
 SW6020

 Unit:
 mg/L

TCLP Metals

Client ID	Lab ID	Matrix	Date Collected Ins	strument Batch ID
SB2-2'	1507086-004A	Soil	07/02/2015 10:20 ICF	P-MS1 107642
Analytes	Result		<u>RL</u> <u>DF</u>	Date Analyzed
Mercury	ND		0.010 1	07/15/2015 13:14

Analyst(s): AC



Quality Control Report

Client:	Applied Remedial Services, Inc.	WorkOrder:	1507086
Date Prepared:	7/14/15	BatchID:	107642
Date Analyzed:	7/15/15	Extraction Method:	SW1311/SW3010
Instrument:	ICP-MS1	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/L
Project:	94th & International	Sample ID:	MB/LCS-107642 1507086-004AMS/MSD

	QC Sum	mary Rep	ort for N	/letals (TC	CLP)				
Analyte	MB Resu	LCS Ilt Resu	lt	RL	SPK Val	MI %I	BISSILC REC %R	S REC	LCS Limits
Mercury	ND	0.240		0.010	0.25	_	96		75-125
Analyte	MS Rest	MSD Ilt Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Mercury	0.22	7 0.241	0.25	ND	91	96	75-125	5.99	20

_QA/QC Officer Page 5 of 8

McCampbell Analy	tical, Ind	с.			СН	AIN-	OF-	-CU	STC)DY I	REC	CORD		Page	1 of 1	1
Pittsburg, CA 94565-1701 (925) 252-9262					W	orkOrde	er: 150)7086	D	Clie	ntCod	e: ARSB				
		WaterTrax	WriteOn	EDF		Excel	F	ax	✓ E	Email	٦H	HardCopy		Party	_ J-flag	g
Report to:						Bill	:0:					Req	uested TA	т:	5 0	days
Michael F. Kara Applied Remedial Services, Inc P.O. Box 5086	E م P	Email: mmk c/3rd Party: PO:	kara707@ao	l.com		A A F	ccount pplied 2.0. Bo	ts Paya Remeo x 5086	able dial Ser	vices, In	C.	Dat Dat	e Receive e Add-Oi	ed: 1:	07/02/2 07/14/2	2015 2015
Walnut Creek, CA 94596-1086 707-748-4205 FAX: 707-748	P 3-4207	ProjectNo: 94th	& Internatio	nal		V	Valnut	Creek,	CA 945	596-1086	6	Dat	e Printed	!:	07/15/2	2015
									Rea	uested T	ests (S	ee leaend k	elow)			
Lab ID C	lient ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7 8	9	10	11	12

А

7/2/2015 10:20

Test Legend:

1507086-004

SB2-2'

Soil

1 METALSMS_TCLP_S	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Erika Santos

Add-On Prepared By: Maria Venegas

Comments: Pb STLC: 1507086-001A, -004A, -007A, -010A, -013A, -016A. 7/6/15 5D TAT. 001 Not enough sample remaining for anything! TCLP Pb also added to 004, 7, 10, 16 7/6/15. STLC and TCLPs changed to RUSH TAT. Asbestos Samples returned & received 7/8/15 001 Set up for STLC and TCLP Pb 7/8/15. Additional Analysis per email added 7/13/15 1 and 2D TATs

	<u>McCampt</u>	Dell Analy tren Quality Count	<u>ytical, Inc.</u>			1534 Willow Pass Road, Toll Free Telephone: (877) 2 http://www.mccampbell.com	Pittsburg, CA 94565-17/ 252-9262 / Fax: (925) 252 / E-mail: main@mccampb	01 -9269 pell.com		
			WC	ORK ORDE	R SUMM	ARY				
Client Name:	APPLIED REMEDIAL SI	ERVICES, INC	2.	QC Leve	I: LEVEL 2			Wor	·k Order:	1507086
Project:	94th & International			Client Contac	t: Michael F	. Kara		Date 1	Received:	7/2/2015
Comments:	Pb STLC: 1507086-001A, -0 7/6/15 5D TAT. 001 Not eno	04A, -007A, -01 ugh sample rema	0A, -013A, -016A. aining for anything!	Contact's Emai	I: mmkara70	7@aol.com		Date	Add-On:	7/14/2015
Lab ID	Client ID	Matrix	Test Name		Containers /Composites	Bottle & Preservative	Collection Date & Time	ТАТ	Sediment Content	Hold SubOut
1507086-004A	SB2-2'	Soil	SW6020 (Metals) (TC	CLP) <mercury></mercury>	1	Acetate Liner	7/2/2015 10:20	Same Day*		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

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