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Site Characterization of the Proposed Asphalt Paving Area and Vicinity, Security Fence Upgrade Project

ML&P Hank Nikkels Plant No. 1
Anchorage, Alaska

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ML&P Hank Nikkels Plant No. 1
Anchorage, Alaska

Prepared for:

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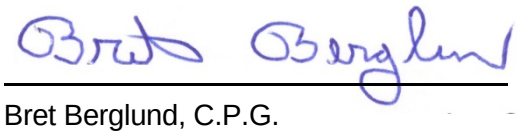

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ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
bgs	below ground surface
CFR	Code of Federal Regulations
DRO	diesel range organics
EPA	U.S. Environmental Protection Agency
LOQ	Limit of Quantitation
mg/kg	milligrams per kilogram
ML&P	Municipal Light and Power
MS/MSD	matrix spike/matrix spike duplicate
PCB	polychlorinated biphenyl
RBDP	Risk-Based Disposal Plan
RPD	relative percent difference
RRO	residual range organics
SGS	SGS North America, Inc.
SLR	SLR International Corporation
TSCA	Toxic Substances Control Act
TSDF	Treatment, storage, and disposal facility
QA	Quality Assurance
QAR	Quality Assurance Review
QC	Quality Control

1. INTRODUCTION

This report describes pre-construction site characterization (sampling) activities in support of a security fence upgrade project at Anchorage Municipal Light and Power's (ML&P) Hank Nikkels Plant No. 1 (Plant 1) in Anchorage, Alaska. The upgrades include installing new security fencing and gates around the perimeter of Plant 1. In addition, portions of the northwest side of the facility will be graded to improve drainage and paved with asphalt concrete to provide a better working surface. The construction is planned for the summer or fall of 2017.

The sampling and analysis described in the report was completed in accordance with the *Work Plan for Soil and Debris Management during the Security Fence Upgrade Project; ML&P Hank Nikkels Plant No. 1; Anchorage, Alaska* (Work Plan, SLR 2016a), and the *Work Plan Addendum: Sampling and Analysis Plan (SAP) for the Area North and Outside of the Facility Fence, ML&P Plant 1* (Work Plan Addendum, SLR 2016b).

The ML&P Hank Nikkels Plant No. 1 is located at 821 E. 1st Avenue in Anchorage, Alaska (Figure 1). The general location of planned paving activities is indicated on Figure 2, General Site Map.

Portions of the Plant 1 facility contain soil with polychlorinated biphenyl (PCB) and petroleum hydrocarbon contamination. The presence of the contaminated soil requires procedures to protect site workers and comply with environmental regulations. Construction activities that disturb the soil (earthwork) within the facility are subject to the requirements of a PCB Risk-Based Disposal Plan (RBDP) approved by the U.S. Environmental Protection Agency (EPA) (ML&P 2008). The Plant 1 RBDP was prepared in accordance with 40 Code of Federal Regulations (CFR) 761.61(c) in compliance with the Toxic Substances Control Act (TSCA). The RBDP is a plan to manage, cleanup, and dispose of PCB remediation waste at the facility in a manner which will not pose an unreasonable risk of injury to human health or the environment. The plan includes procedures to manage contaminated soil disturbed during construction projects in a manner which is protective, complies with applicable regulations, and minimizes the generation of waste. For the purposes of this plan, "Plant 1" consists of the property inside the secured fenced area surrounding the power plant.

One of the RBDP requirements is that a project-specific soil management plan (Work Plan) is prepared and implemented for all projects that disturb greater than 150 cubic yards of soil at Plant 1. This project is estimated to require the removal (excavation) of approximately 300 cubic yards of soil. Therefore, the project-specific Work Plan (SLR 2016a) and Work Plan Addendum (SLR 2016b) cite above were prepared to provide project specific details to facilitate completion of the work and compliance with the RBDP. These project specific plans are considered addenda to the RBDP.

1.1 OBJECTIVES AND ACTION LEVELS

The objective of the sampling was to verify the presence or absence of PCBs above action levels in surface soils within the area to be graded and paved to determine if the soil will require

special handling during the construction project. Petroleum hydrocarbon sampling was also performed on a more limited basis to help determine disposal options for soil removed offsite.

In addition, sampling was performed outside of the fence to determine if soil with PCBs greater than (>) 1 milligram per kilogram (mg/kg) was present outside of the facility boundary. This was done in locations where PCBs > 1 mg/kg were detected bordering the inside of the fence during the initial (June) sampling event.

At Plant 1, site-specific PCB cleanup levels are used to manage soil during construction projects in accordance with the RBDP (ML&P 2008). As per the RBDP:

- If soil with PCBs > 50 mg/kg is identified in excavations during construction projects, the soil in excess of 50 mg/kg PCBs must be removed down to the water table, and disposed offsite at Transport Storage and Disposal Facility (TSDF) permitted to accept the waste.

- Soil containing PCBs > 1 mg/kg but less than or equal to (≤) 50 mg/Kg identified in construction projects may remain inplace, but must be capped with a minimum of two inches of asphalt or concrete, or approximately 5 inches of clean fill (soil or gravel).

- Soil removed from the ground (excavated) during construction projects that contains PCBs > 1 mg/kg must be disposed offsite unless it contains PCB ≤10 mg/kg and can be reused as onsite backfill during the project (long term stock piling not permitted). Soil with PCBs > 1 and ≤ 10 mg/Kg reused as backfill must be capped as described above.

The area outside of the fence (facility) is not part of the RBDP. Therefore, outside of the facility fence, the PCB cleanup level for unrestricted use is 1 mg/kg. This coincides with the Alaska Department of Environmental Conservation (ADEC) Method Two cleanup level for the Under 40-Inch (rainfall) Zone, as listed in 18 Alaska Administrative Code (AAC) 75.341, Table B1 (ADEC 2016). Method Two cleanup levels are risk-based cleanup levels protective of human health and the environment under most circumstances, including residential site use. In addition, petroleum hydrocarbon concentrations in soil at the facility were screened against Method Two cleanup levels, as listed in 18 AAC 75.341, Table B2 (ADEC 2016).

1.2 ROLES AND RESPONSIBILITIES

Project activities were performed under the regulatory oversight of the EPA and ADEC. SLR International Corporation (SLR), under contract to ML&P, performed sampling, laboratory management and reporting. SLR worked under the supervision of Yelena Saville, ML&P Senior Environmental Engineer, responsible for environmental compliance at ML&P facilities. SLR served the role of the project's Qualified Environmental Professional per ADEC 18 AAC 75.333 requirements, with respect to sampling and reporting. SGS North America Inc. (SGS) in Anchorage, Alaska, a National Environmental Laboratory Accreditation Program and ADEC-approved laboratory, provided analytical services. Sampling activities north of the Plant 1 fence were within 50 feet of the Alaska Railroad Corporation (ARRC) tracks, and required an access permit from the railroad. Sampling activities were performed under the supervision of an ARRC escort.

1.3 PROJECT BACKGROUND

Soil excavation and grading will be required to prepare the ground surface for the installation of new pavement in the northwest corner of the facility. The ground surface in the proposed paving area currently consists of gravel with some organic soil and vegetation (grass and shrubs). Clearing and grubbing of the area will be required. Paving this area will also involve removal and replacement of some existing asphalt pavement in poor condition bordering the unpaved area. Figure 2 provides a site plan indicating the work areas. Prior to this project, PCB soil data for the asphalt paving area was not available.

The clearing and grubbing within the paving area is estimated to require the removal of up to 6 inches of soil, although it may be less in some locations. Removal of 6 inches of soil over the 15,100 square foot area (approximately 0.3 acre) is anticipated to generate approximately 280 cubic yards of soil (mixed with vegetation and root material). It is possible that no soil removal will be required where the existing asphalt is removed (the underlying material may lack organics, and may be appropriate base material).

Any soft, organic soil removed in the asphalt paving area would not be suitable for construction. For planning purposes, it is assumed all soil excavated for construction of the security fence upgrade project, including paving, will be disposed offsite.

The new asphalt concrete will be 2-inches thick and set on a 4-inch leveling course of clean fill which will be compacted prior to paving. Additional construction grade fill (Type IIA) will be placed below this layer if needed to help establish a level grade. The new pavement will meet the specifications for a cap (over PCB-contaminated soil) as established in the RBDP (ML&P 2008).

This construction project will be completed along and within the fence boundary, with no excavation planned beyond the perimeter of the current fence. However, the fence installation portion of the project may require the placement of clean, imported fill a couple feet beyond the current fence line for grading purposes.

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2. METHODS

The sampling of the proposed asphalt paving area at Plant 1 was initially conducted from June 27-30, 2016. Sampling and analysis followed procedures described in the project's Work Plan (SLR 2016a). Sample results indicated that soil with PCBs > 1 mg/kg was present within the paving area, including adjacent to the fence. Therefore, it was decided that the area north of the fence should be sampled to determine if PCBs > 1 mg/kg were present outside the facility. A Work Plan Addendum (SLR 2016b) was written to guide sampling and analysis of this area and fill other data gaps remaining from the first event. In June 2016, some sample locations within the paving area were covered by storage units, or were at the margins of the composite sampling grid and were not sampled. These locations and the area outside the fence was sampled during a second event, October 4-7, 2016.

The sampling was conducted by SLR scientists or engineers who were ADEC-Qualified Environmental Professionals (Bret Berglund, Brent Veltkamp, Ben Siwiec, and Matt Woods), and ADEC-Qualified Sampler Seth Oliver. Digital photographs were taken throughout the project to document site activities and conditions. A Photograph Log is presented in Appendix A.

2.1 SOIL SAMPLE COLLECTION

Laboratory soil samples were analyzed for the following analytical methods:

- PCBs by Method 8082; and
- Diesel range organics and residual range organics (DRO/RRO) by Method AK 102/103.

A total of 84 PCB samples were collected and analyzed. Approximately 10% of the PCB samples collected in the asphalt paving area were also analyzed for DRO/RRO (6 samples total). The DRO/RRO samples were collected to determine if petroleum hydrocarbon concentrations would be below the disposal limits at the Anchorage Regional Landfill. The Anchorage Regional Landfill will accept soil with DRO < 1,000 mg/kg and RRO < 1,000 mg/kg, if PCBs are < 1 mg/kg. Nine PCB duplicates and one DRO/RRO duplicate sample were collected, a rate of at least 10% for each analytical method. Figure 3 indicates the location of the samples collected.

Thirteen (13) additional soil samples were collected north of the fence but not analyzed. Access to this area is restricted by the Alaska Rail Road Corporation, and more samples than might be needed to define the extent of PCB contamination > 1 mg/kg were collected as a contingency. Initially, only samples adjacent to and in close proximity to the fence (from 0 to 15 feet) were submitted for analysis. The remaining samples were archived pending the receipt of initial results. As discussed in Section 3, the first round of samples analyzed north of the fence did not contain PCBs > 1 mg/kg. Therefore, the area was considered sufficiently characterized and the additional samples were not analyzed. Figure 3 shows the locations of the analyzed and archived samples.

Sampling of the proposed asphalt paving area and area north of the fence was conducted utilizing a 5 by 5-foot grid network and collecting and analyzing discrete and composite discrete

consistent with TSCA (40 CFR 761, Subpart O). This was achieved by first establishing a 5 by 5-foot grid square network over a geo-referenced digital map of the project area, using Geographic Information System (GIS) software. Survey coordinates for each grid square axis were uploaded to real-time kinematic (RTK) global positioning system (GPS) survey equipment, and sample locations were placed using the pre-established grid. The RTK survey equipment, utilizing a Virtual Reference Station (VRS) correction, typically attained a horizontal accuracy of approximately ±0.04 feet.

Discrete (grab) soil samples were collected at a frequency one confirmation sample every five feet across the planned paving area (e.g., one sample at each grid point/node) where there was exposed soil (ground). The samples were collected at depth of 3-4 inches below ground surface (bgs), the approximate mid-point of the planned 6-inch cut to remove the surface soils.

The samples collected north (outside) of the facility fence were collected at a similar depth interval (2-4 inches bgs). This area had relatively dense vegetation consisting of tall grass and shrubs. The sampling targeted the mineral soil below surface organics and the root layer. The vegetative "mat" was removed to reach the sample depth and returned to the same location after sampling. Bulk samples were collected using a clean, decontaminated trowel. A decontaminated shovel was used to clear upper surface soils and roots where necessary.

In accordance with the Work Plan and Work Plan Addendum, samples were composited in the following manner:

1. In the proposed asphalt paving area, up to nine adjacent grid point samples were composited (up to nine 5-foot by 5-foot grid squares). However, no more than three grid point samples in any single direction were composited. Thus, composited samples points were no more than 10 feet apart. A nine-sample composite represented a maximum total area of 15 feet by 15 feet (225 square feet).
2. Soil from inside the facility fence was not composited with soil from outside the fence (including areas bordering the fence). Along the fence the number of composited grid point samples was typically reduced to less than nine, and in some locations only discrete samples were collected and analyzed.
3. For samples collected north of the facility fence:
    i. Immediately adjacent to the fence, the composited area did not extend more than one grid square (5 feet past the fence). Thus, a maximum of three sample points in one linear direction (15 feet total) were collected and composited.
    ii. At a distance of greater than one grid square north of the fence (5 feet north of the fence), composite sample areas comprised up to nine sample points as described above, with a maximum of three points in a single direction.
    iii. The sample grid was terminated where it intersected the gravel fill from the railroad embankment (the gravel fill was not sampled).

4. Subsamples of equal volume were collected at each sample point into a clean stainless steel bowl and homogenized. A composite sample for analysis was collected from the homogenized soil using a new stainless steel spoon to fill sample jars.

    i. To minimize sampling time within the railroad right-of-way along the tracks, the samples north of the fence were collected into a plastic zip-lock bag and labelled with a unique sample identification (denoting grid squares). After all of the samples are collected, the soil within each bag was homogenized and transferred to a labelled sample jar for analysis. The latter step was performed after the sample team had left the restricted area, and no longer required an Alaska Railroad Corporation escort.

In addition to the soil samples collected from the unpaved portion of the project area, six soil samples were collected from the existing paved area that is planned for re-paving. The soil samples were collected by removing an asphalt core with a 3-inch rock drill, and collecting samples from the soil directly underneath the pavement (0-2 inches). Following sampling, the holes were repaired with cold patch asphalt.

A sample log was maintained to record pertinent information for each sample, including the number and location of samples composited (composite area comprising each sample), sample depth, soil type, date, time, and comments. Sample logs are presented in Appendix B. In addition, field notes were maintained, and sample locations marked on maps depicting sample grids.

2.2 DATA QUALITY REVIEW

Environmental samples were analyzed by SGS in Anchorage, Alaska. SGS maintains current ADEC Contaminated Sites approval for the methods of interest (approval number UST-005). The analytical data was reviewed for consistency with the project Work Plan and with ADEC's Technical Memorandum, Environmental Laboratory Data and Quality Assurance (ADEC 2009) requirements. The review of each data set was documented in a Quality Assurance Review (QAR). Laboratory data packages and data quality review are presented in Appendix C.

The QAR includes a Quality Assurance (QA) summary for the associated data set and an ADEC Laboratory Data Review Checklist for each work order reviewed in the QA summary. The following data quality indicators were included in the review in order to evaluate the data against precision, accuracy, representativeness, completeness, and sensitivity requirements established for the project:

- Chain-of-custody paperwork and custody seals;
- preservation (thermal 4 ± 2 °C and chemical);
- analytical method hold times;
- blanks (trip blanks and method blanks);
- continuous calibration verifications;
- internal standards;

- surrogate recoveries;
- laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries as percent recovery and precision as relative percent difference (RPD);
- matrix spike and matrix spike duplicate (MS/MSD) recoveries as percent recovery, and precision as RPD;
- field replicates as RPD; and
- laboratory method detection and reporting limits.

Anomalies identified are discussed in the QAR. Where applicable, the associated data was qualified by applying flags. The rationale for applying qualifiers to specific data sets is detailed in the QAR (Appendix C). Data flags used are presented below:

> **J** - Estimated: The analyte was positively identified but the result was outside the calibration range, between the limit of quantitation (LOQ) and the detection limit (DL); the quantitation was an estimate.
>
> **M** - The concentration was an estimate due to a sample matrix quality control (QC) failure. Where applicable, an "H", "L", or "N" will be appended to indicate positive, negative, or unknown bias, respectively.

The project data review indicated that the reported laboratory data was of good quality and met the data quality objectives. No data were rejected, and data qualifications were minor. The data review did identify several data anomalies which required qualification, as detailed in the QAR. The most notable anomalies are listed below, along with an assessment of their significance.

<u>June 2016 Data, Lab Work Order 1163579</u>

- For primary sample/field duplicate pair AP-1/AP-91, the Aroclor-1260 RPD exceeded the acceptance limit of 50%, with an RPD of 77%. This was likely due to matrix interference. Aroclor-1260 and total PCB results for AP-1 and AP-91 were qualified with the data flag "MN", indicating that sample results are estimated due to matrix interference, with an unknown bias. All affected results were well below the lowest applicable cleanup level of 1 mg/kg for PCBs, and therefore data usability was not impacted.
- For Aroclor-1016 and -1260 MS/MSD analysis, two sample percent recoveries and one RPD were reported outside of acceptance limits, associated with samples AP-AA15 and AP-48. Both anomalies indicated a high bias. Aroclor-1016 results were non-detect for both primary samples, and data was not flagged. For sample AP-48 Aroclor-1260, the primary sample result of 0.0895 mg/kg was qualified with an "MN," and should be considered estimated (likely due to matrix interference) with an unknown bias. However, the sample result is well below the screening level of 1 mg/kg.

<u>October 2016 Data, Lab Work Order 1166030</u>

- The primary sample/field duplicate RPD for sample NF-15 and duplicate NF-915 was outside of the ADEC required 50% for soils, with an RPD of 66%. Data were qualified with the flag "MN" indicating that sample results are estimated due to a sample matrix QC failure, with an unknown bias. All sample results were well below the screening level of 1 mg/kg, and useable as flagged.

3. SAMPLE RESULTS

3.1 ASPHALT PAVING AREA

Fifty-seven composite grid samples and four discrete samples (for a total of 61 samples) were collected to characterize surface soils in the unpaved area in the northwest portion of Plant 1. Table 1 presents the PCB soil sample results (including seven duplicates). Composited grid areas are shown on Figure 3, with corresponding PCB concentrations listed (for samples exceeding 1 mg/kg). Table 2 presents DRO/RRO results for the six soil samples and one duplicate collected in the unpaved area.

PCBs were detected in 60 of the 61 samples collected within the unpaved area. PCB concentrations ranged from non-detectable to 1,370 mg/kg. PCBs were < 1 mg/kg in 36 of the 61 primary samples, and between 1 and 50 mg/kg in 13 primary samples. Eleven samples had PCB concentrations > 50 mg/kg. Aroclor 1260 was the only PCB aroclor detected in the soil samples.

PCBs were detected in one of the six samples collected from borings in the existing paved area. Sample AP-AA15, located in the central portion of the paved area, contained PCBs at an estimated concentration of 0.0347 mg/kg, which was below the LOQ for the sample.

The six DRO/RRO samples did not exceed their respective ADEC Method Two cleanup levels. DRO concentrations ranged from an estimated 8.5 to 246 mg/kg. All DRO results were below the Migration to Groundwater cleanup level of 250 mg/kg, and most stringent human health cleanup level of 10,250 mg/kg. RRO results ranged from 57.7 to 822 mg/kg. All RRO results were well below the most stringent human health cleanup level of 10,000 mg/kg, and the Migration to Groundwater cleanup level of 11,000 mg/kg. These results are also below the acceptance criteria of the Anchorage Regional Landfill (1,000 mg/kg DRO and 1,000 mg/kg RRO).

The detections of PCBs > 1 mg/kg were all located on the eastern half of the planned asphalt paving area as shown on Figure 3. There were two separate areas with high PCB concentrations (> 100 mg/kg) detected, suggesting there were two distinct areas where releases occurred. In addition, the distribution pattern suggests the surface soil had not been extensively regraded or otherwise disturbed since the time of the release. Otherwise, the PCBs would likely have been dispersed resulting in more widespread and lower PCB concentrations in the surface soils.

Following receipt of the June 2016 sample results, ML&P cordoned off the area with PCBs > 1 mg/kg between the covered storage building (to the west) and fabric building (to the east) with caution tape. Warning signs were also posted to alert personnel about the presence of PCBs, and restricting access to the area (see Appendix A, Photographs 13 and 14). The area has not been used or disturbed (except for sampling) since the warning signs were posted.

3.2 AREA NORTH (OUTSIDE) OF THE FACILITY FENCE

Seventeen composite grid samples were collected to the north of the fence to characterize surface soils, adjacent to areas inside the fence where soil with PCBs > 1 mg/kg was detected. Table 1 presents the results of the PCB soil samples, and sample locations are indicated on Figure 3.

PCB soil concentrations in the samples were all below 1 mg/kg. PCB sample results ranged from non-detect to 0.123 mg/kg. PCBs were detected in 12 of the 17 primary samples. Eight of the PCB detections were estimated below the sample LOQ. The samples with two highest detectable PCB concentrations (NF-8 = 0.123 mg/kg and NF-25 = 0.11 mg/kg) were located adjacent to the areas inside the fence with the highest PCB concentrations.

3.3 FACILITY FOOTPRINT 1959-PRESENT

As part of the investigation, available historical aerial photography was used to map the developed footprint of the facility over time and evaluate whether there was ever significant development beyond the current north fence line. Figures 4A-C presents a series of historical aerial photographs from 1959 through 2011, depicting the interpreted footprint of Plant 1 along the north side of the facility in relation to the current fence line (facility boundary). The photos indicate the area beyond the current fence line was never significantly developed or utilized by the power plant. There are only a couple areas depicted in the 1970 and 1980 photographs where the footprint appears to extend a few feet beyond the current fence line. This site usage is consistent with the sample results, which detected PCBs > 1 mg/kg extending up to the fence line within the facility but not beyond. The photos and sample results support the conclusion that PCBs were not released or dispersed beyond the current facility boundary. In addition, the photos indicate that the area where PCBs were detected during this investigation was cleared of native vegetation and covered with gravel fill sometime between 1963 and 1970. From 1970 onward it appears that the current footprint of the facility had been established.

4. CONCLUSIONS AND DISCUSSION

This section summarizes the sample results and discusses the associated requirements or recommendations with respect to the Plant 1 RBDP and the planned fence upgrade project.

Unpaved Area Planned for Paving

Surface soil samples were collected in the northwest portion of ML&P's Plant 1 in June and October 2016 to verify the presence or absence of PCBs above action levels (1 and 50 mg/kg) in the soil prior to paving the area. A total of 64 primary samples were collected, with most consisting of composited samples collected over a 15 x 15 foot area (225 square feet, with nine subsamples) following TSCA sampling methods and the project specific plans (SLR 2016a, 2016b).

Soil with PCB concentrations above 1 mg/kg was detected in the eastern portion of the unpaved area, extending up to the fence line at some locations. The maximum detected concentration was 1,370 mg/kg, with 11 of 64 samples containing concentrations > 50 mg/kg. These composited sample results represent an area encompassing 1,950 square feet. In accordance with the RBDP, soil with PCBs above 50 mg/kg must be removed down to the water table when identified during construction activities. Therefore, removal of the PCB-contaminated soil > 50 mg/kg will need to be performed prior to the paving phase of the project.

As described in the Work Plan (SLR 2016a), in areas where PCBs are present above 50 mg/kg soil removal will generally be performed in 2-foot cuts, with confirmation samples collected after each cut using the 5-foot by 5-foot grid system established for the surface soil sampling. A single 2-foot cut of the area containing PCBs above 50 mg/kg is estimated to generate approximately 180 loose cubic yards of soil, a volume which includes an estimated fluff factor of 25%. Soil with PCBs greater than 50 mg/kg will be containerized separately from other PCB-contaminated soil. The site characterization samples will be used to characterize the excavated soil in the first lift for disposal purposes.

Additional soil removal in 2-foot cuts and confirmation sampling will be performed until it is verified no soil above 50 mg/kg remains above the water table. Based on previous groundwater sampling in the area, groundwater is anticipated to be encountered in the range of 5.5 to 6.0 feet bgs. During site-wide groundwater sampling conducted in October 2006 and April 2011, the depth to groundwater in monitoring well MW-9, located in the eastern side of the area to be paved, was measured at 5.88 and 6.25 feet bgs, respectively (Hoefler Consulting Group 2007, SLR 2011). If removal of PCB-contaminated soil to the water table is necessary, approximately 540 loose cubic yards of soil will be generated. After soil removal is complete, the excavation will be backfilled with clean, imported, construction-grade fill. The backfilled area will be leveled and compacted prior to paving.

Thirteen samples in the unpaved area contained PCBs at concentrations > 1 mg/kg and < 50 mg/kg. The soil in this concentration range comprises an area of 2,350 square feet. The RBDP requires capping of soil with PCBs > 1 mg/kg with a minimum of two inches of asphalt or concrete or 5 inches of clean fill (soil or gravel). The planned asphalt paving of the area would fulfill this requirement. However, the paving project requires grading of the area prior to paving,

which could disperse PCB-contaminated soil into non-impacted areas. Therefore, as a precaution, the soil with PCBs > 1 mg/kg will be removed below the maximum depth of grading (0.5 feet) and covered with clean fill prior to grading. Organic soils will need to be removed in this area prior to grading as part of the paving so this precautionary measure will not increase disposal cost significantly.

It should be noted that there is a utility pole within an area containing PCBs > 50 mg/kg (see Figure 3, Pole # 3, within sample area AP-32 and Appendix A, Photograph 5). Appropriate measures should be taken to ensure the integrity of the pole is not jeopardized and/or it does not pose a safety concern to workers during the soil removal. As noted, the excavation around the pole will be between 2 and 6 feet deep. There is also another utility pole and four guy anchors in the vicinity, although not in an area where the surface soil contain PCBs > 1 mg/kg (Figure 3, sample areas AP-22, AP-25, and AP-26, and Photograph 6). However, these items may interfere with equipment access to remove nearby soils. There is also another utility pole bordering the north edge of sample AP-14, where PCBs were detected at 3 mg/kg (see Figure 3, Pole #1 and Photograph 8).

The 2016 site characterization data indicates that the boreholes for the new fence posts have the potential to encounter PCB contaminated soil along a portion of the north fence line. However, if the cleanup (removal) actions cited above are completed ahead of time, the contamination in this area will either removed, or at least reduced and better delineated. The fencepost boreholes are anticipated to extend 7 feet bgs, so they will likely encounter soil deeper than the anticipated soil removal. Per the Work Plan (SLR 2016a), the soil from all boreholes will still be placed in 1-CY supersacks and sampled for PCBs for disposal purposes.

The surface soil samples analyzed for DRO/RRO did not contain analytes above the most stringent ADEC Method Two cleanup levels. In addition, the DRO/RRO concentrations were below the Anchorage Regional Landfill acceptance criteria. Therefore, in areas where PCBs are less than 1 mg/Kg, the surface soil (upper 2-4 inches) should be acceptable for disposal if removed prior to paving. However, the landfill may require additional sampling for verification. In addition, the fence post borings will be considerably deeper (up to 7 feet) so the soil cuttings from these borings will still need to be characterized for disposal purposes.

<u>Existing Paved Area Planned for Replacement (Repaving)</u>

The six samples collected from underneath the existing asphalt planned for repaving did not contain PCBs > 1 mg/kg. PCBs were only detected in one sample, at an estimated concentration of 0.0347 mg/kg. In addition, composite samples from the unpaved areas bordering the paved area did not contain PCBs > 1 mg/kg, except for an approximately 8 foot section on the northeast corner (next to composite sample AP-57, which had a PCB concentration of 30.9 mg/kg). Therefore, the immediate underlying surface soil (0-4 inches bgs) will be assumed not to contain PCBs > 1 mg/kg and no further sampling will be conducted for site characterization purposes with the exception of the area bordering sample AP-57. After the pavement is removed, the soil bordering AP-57 will be sampled for PCBs to verify the underlying soil does not contain PCBs > 1 mg/kg. This will be done by extending the 5 by 5-foot grid network and collecting samples in the same manner as in the unpaved gravel area. Pavement removed from areas where the underlying soil does not contain PCBs > 1 mg/kg should not require any special handling and can be disposed as standard demolition debris or recycled.

North of the Facility Fence

Soil samples collected to the north and outside of the facility fence did not contain PCBs in excess of 1 mg/kg, the ADEC Method Two cleanup level specified in 18 AAC 75.341, Table B1. Therefore, the PCB-impacted soil above 1 mg/kg appears to be confined within the fenced portion of the facility. Based on review of historical photographs the area beyond the current fence line where PCBs were detected does not appear to have been utilized by the power plant. If PCBs were not detected in the surface soil, they are also unlikely to be present in the subsurface soil since the ground does not appear to have been disturbed by power plant activities. Therefore, concerns for PCBs in the soil beyond the fence line along the northwest portions of the facility do not appear warranted, so long as the existing institutional controls are maintained. Removing the PCB-impacted soil along the fence line and capping the exposed ground surface with pavement as planned will lower the risk that this area would become contaminated in the future by the dispersion of PCB-impacted soil from the facility.

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SLR International Corporation (SLR). 2011. Spring 2011 Plant No. 1 Groundwater Monitoring. August 2.

SLR. 2016a. Work Plan for Soil and Debris Management during the Security Fence Upgrade Project; ML&P Hank Nikkels Plant No. 1; Anchorage, Alaska. May 16.

SLR. 2016b. Work Plan Addendum: Sampling and Analysis Plan (SAP) for the Area North and Outside of the Facility Fence, ML&P Plant 1. September 29.

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LIMITATIONS

The services described in this work product were performed in accordance with generally accepted professional consulting principles and practices. No other representations or warranties, expressed or implied, are made. These services were performed consistent with our agreement with our client. This work product is intended solely for the use and information of our client unless otherwise noted. Any reliance on this work product by a third party is at such party's sole risk.

Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.

The purpose of an environmental assessment is to reasonably evaluate the potential for, or actual impact of, past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an appropriate level of analysis for each conceivable issue of potential concern.

No investigation can be thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the result of the services performed within the scope, practical limitations, and cost of the work performed.

Our professional opinions are based in part on interpretation of data from a limited number of discrete sampling locations and therefore may not be representative of the actual overall site environmental conditions.

The passage of time, manifestation of latent conditions, or occurrence of future events may require further study at the site, analysis of the data, and/or reevaluation of the findings, observations, and conclusions in the work product.

This work product presents professional opinions and findings of a scientific and technical nature. The work product shall not be construed to offer legal opinion or representations as to the requirements of, nor the compliance with, environmental laws rules, regulations, or policies of federal, state or local governmental agencies.

FIGURES

N

0 250 500 1,000 1,500 2,000 Feet

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY.
ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

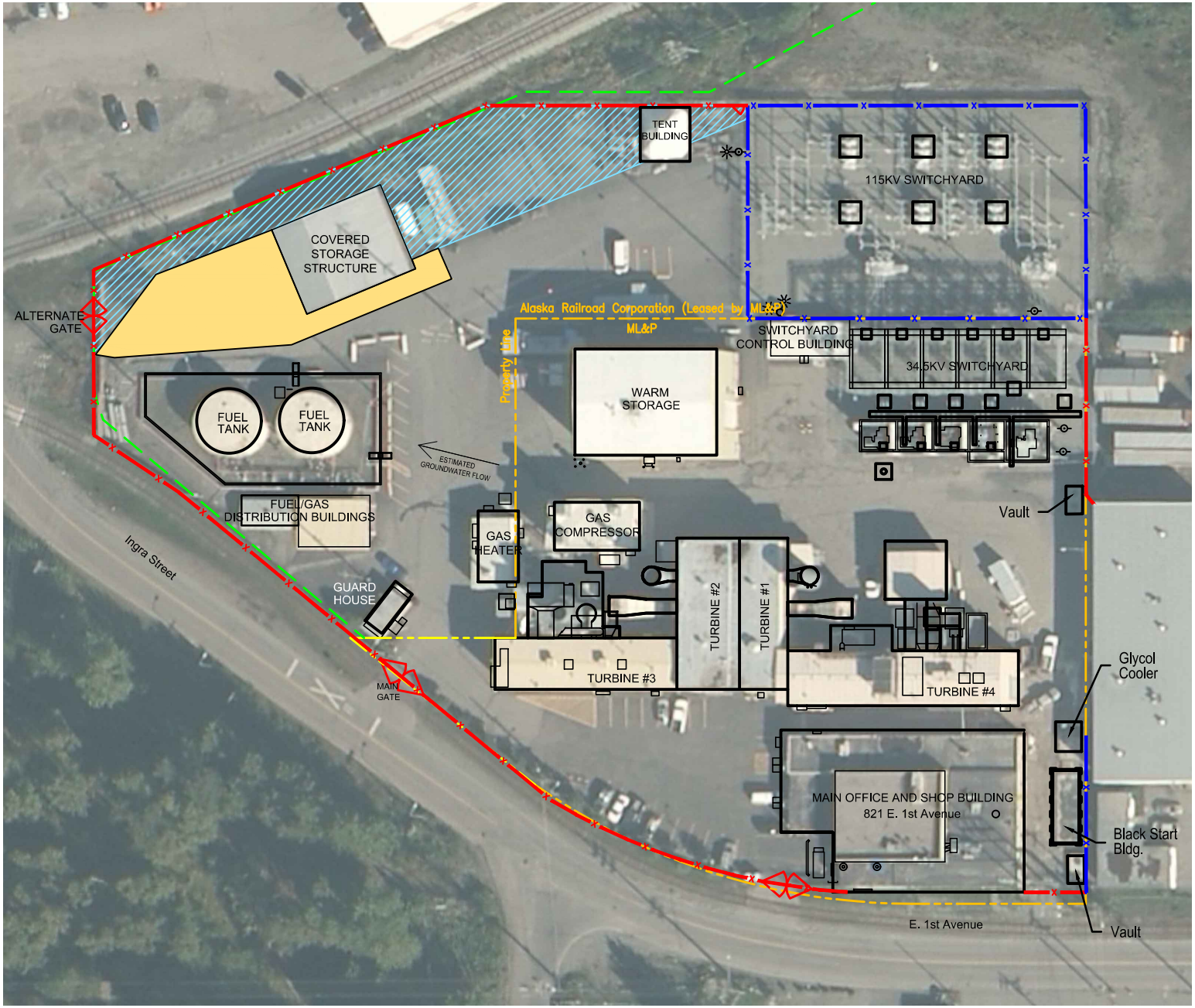
SLR

Site
MUNICIPAL LIGHT AND POWER
HANK NIKKELS PLANT #1
821 EAST 1ST AVENUE
ANCHORAGE, ALASKA

Report
SITE CHARACTERIZATION OF THE
PROPOSED ASPHALT PAVING AREA AND VICINITY
SECURITY FENCE UPGRADE PROJECT

Drawing
SITE VICINITY MAP

Drawing	December 2016	Scale	1 in = 850 feet	Fig. No.	1
File Name	F1 Plant 1 Vicinity Map_16.mxd	Project No.	101.00528.11001		



NOTES

Aerial Photograph: BING™ (http://www.bing.com/maps/), August 2011

LEGEND

- EXISTING FENCE (TO BE REPLACED)
- EXISTING FENCE (TO REMAIN)
- PROPERTY LINE
- LEASE BOUNDARY
- GATE (TO BE REMOVED AND REPLACED)
- AREA OF CLEARING, GRUBBING, AND RE-PAVING APPROXIMATE AREA: 11,110 FT²
- EXISTING PAVEMENT (TO BE REMOVED AND REPLACED) APPROXIMATE AREA: 5,849 FT²

N

SCALE: 1" = 80'
WHEN PLOTTED AT 8.5 x 11 PAGE SIZE

0 80 160 240'

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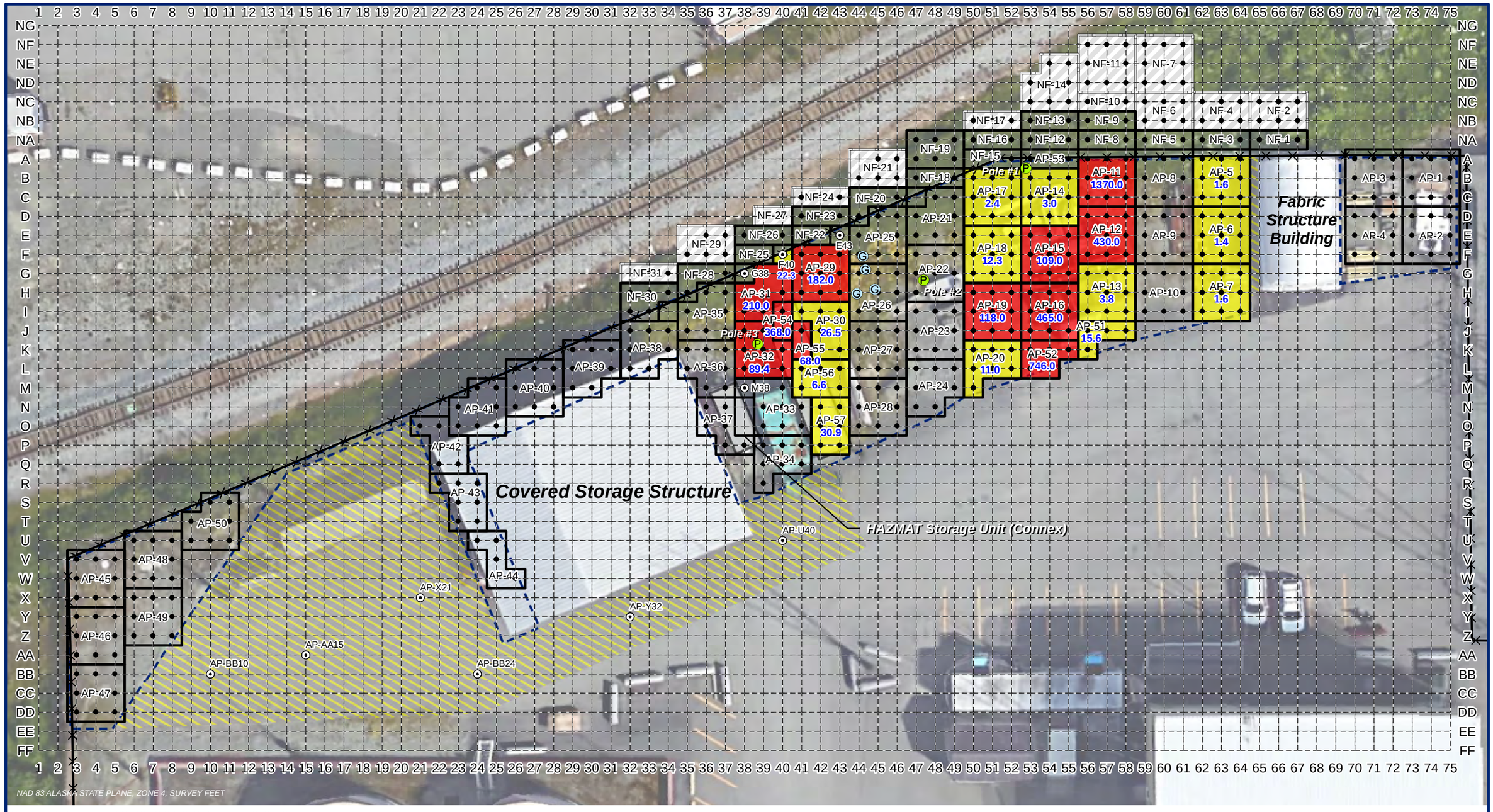
MUNICIPAL LIGHT AND POWER
HANK NIKKELS PLANT #1
821 EAST 1ST AVENUE
ANCHORAGE, ALASKA

Report
SITE CHARACTERIZATION OF THE PROPOSED ASPHALT PAVING AREA AND VICINITY SECURITY FENCE UPGRADE PROJECT

Drawing
GENERAL SITE MAP

Date	January 2017	Scale	1" = 80'	Fig. No.
File Name	F2 Plant 1 Soil MGMT_16	Project No.	105.00528.11001	2

SLR



Sample Dates: June 28 - 29, 2016 & October 5 - 6, 2016

All Samples Collected 3 - 4 Inches Below the Ground Surface (bgs).

N

0 10 20 40 60 Feet

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY.
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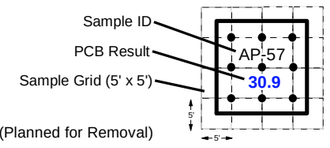
Legend

- Guy Anchor
- Utility Pole
- Soil Sub-Sample Location (Composited)
- Discrete Soil Sample
- Fence
- TSCA Composite Soil Sample Area (Submitted for Lab Analysis)
- TSCA Composite Soil Sample Area (Archived)
- PCB > 50 mg/Kg
- PCB > 1 mg/Kg
- Connex
- Unpaved Area
- Existing Pavement (Planned for Removal)
- 430 PCB Result (mg/Kg)

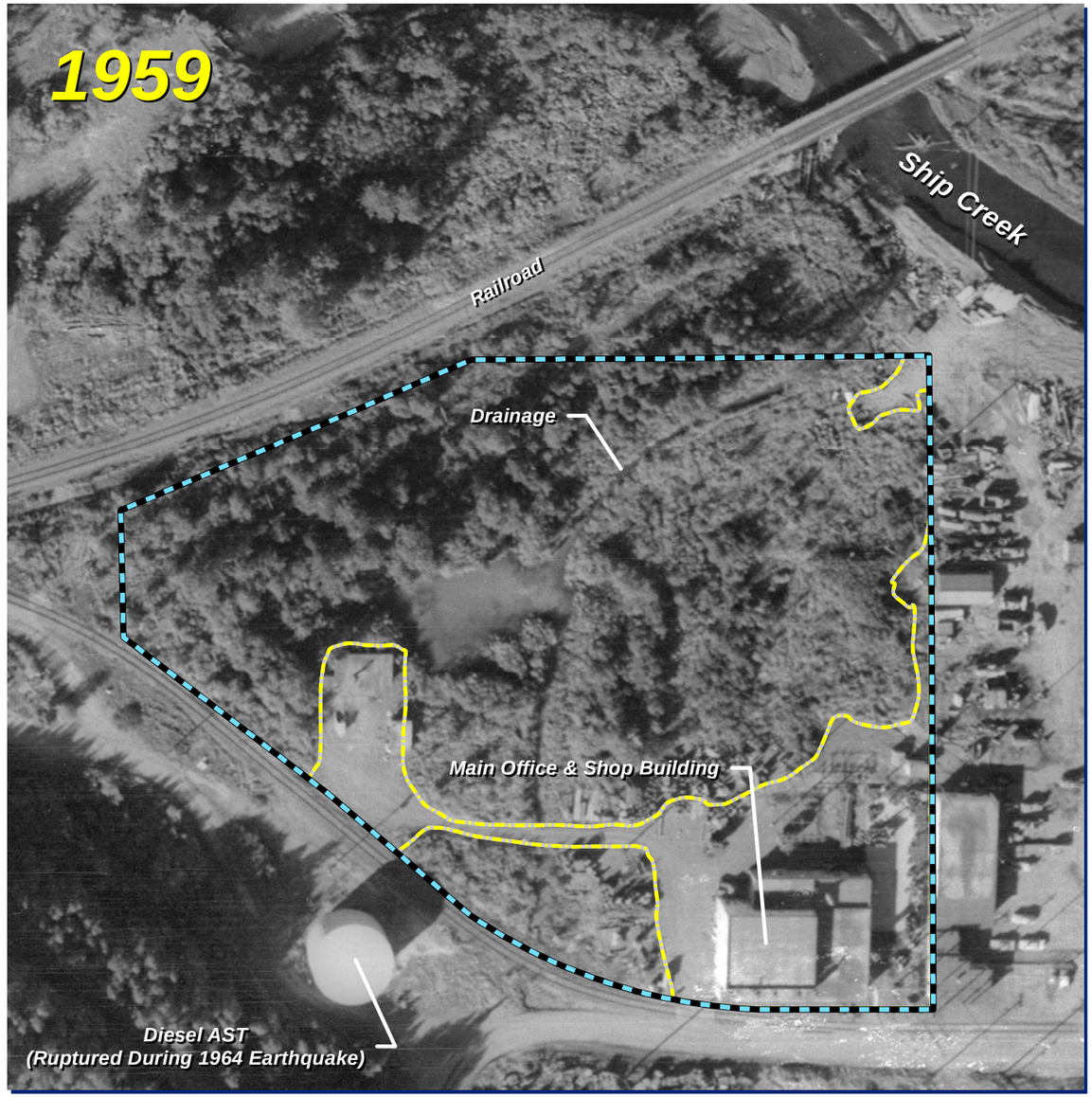
No Result Listed if PCB Result < 1 mg/Kg

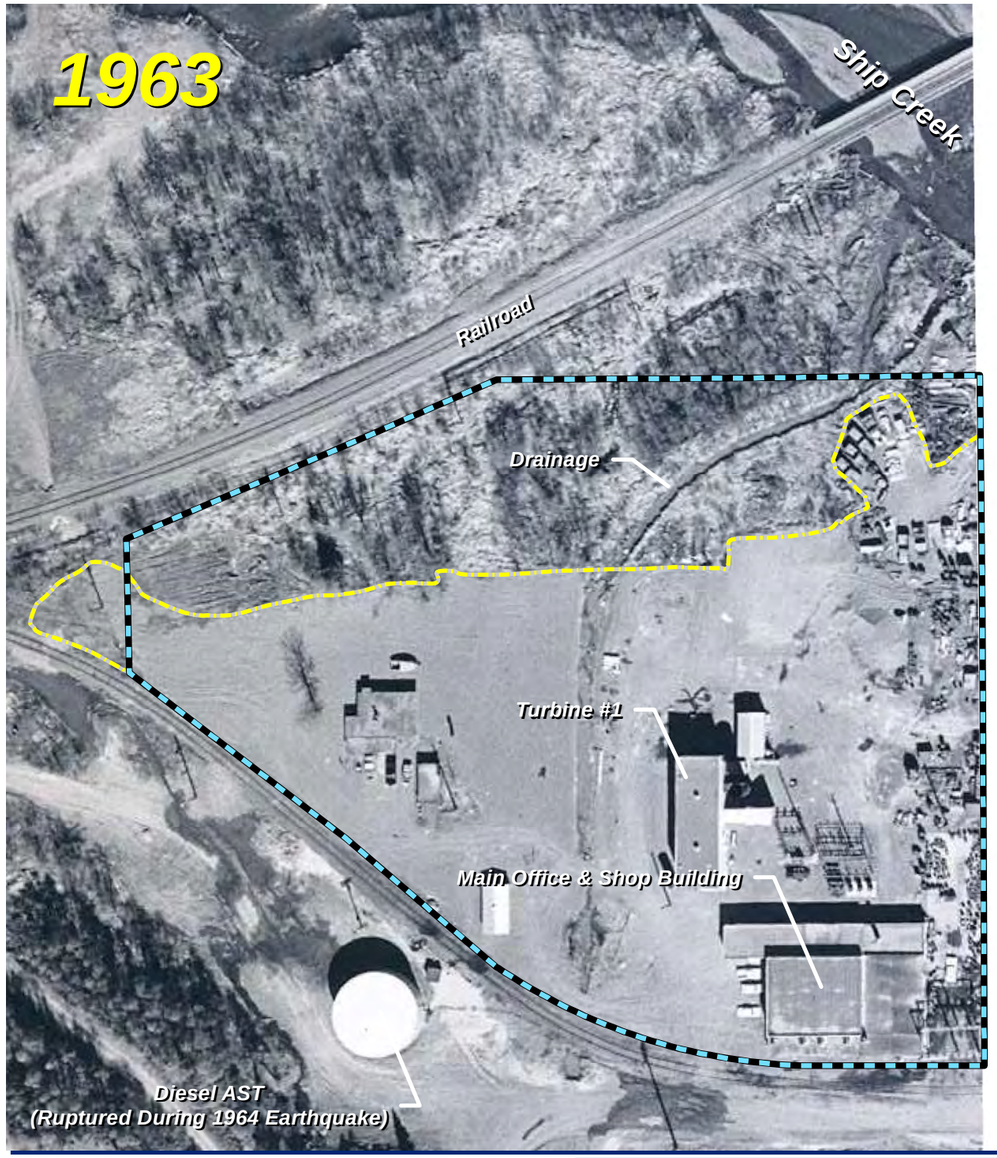
TSCA Composite Soil Sample Area



Site	MUNICIPAL LIGHT AND POWER PLANT No. 1 821 EAST 1ST AVENUE ANCHORAGE, ALASKA
Drawing	2016 SOIL SAMPLE LOCATIONS AND PCB RESULTS (JUNE AND OCTOBER SAMPLING EVENTS)

Drawing	December 2016	Scale	1 " = 25 Feet	Fig. No. 3
File Name	F3 Additional Soil Sampling N_Fence_16.mxd	Project No.	105.00528.11001	





Legend

Current Facility Boundary Fence

Interpreted Facility Usage Area at Time of Photograph

N

0 50 100 200 300 Feet

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ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

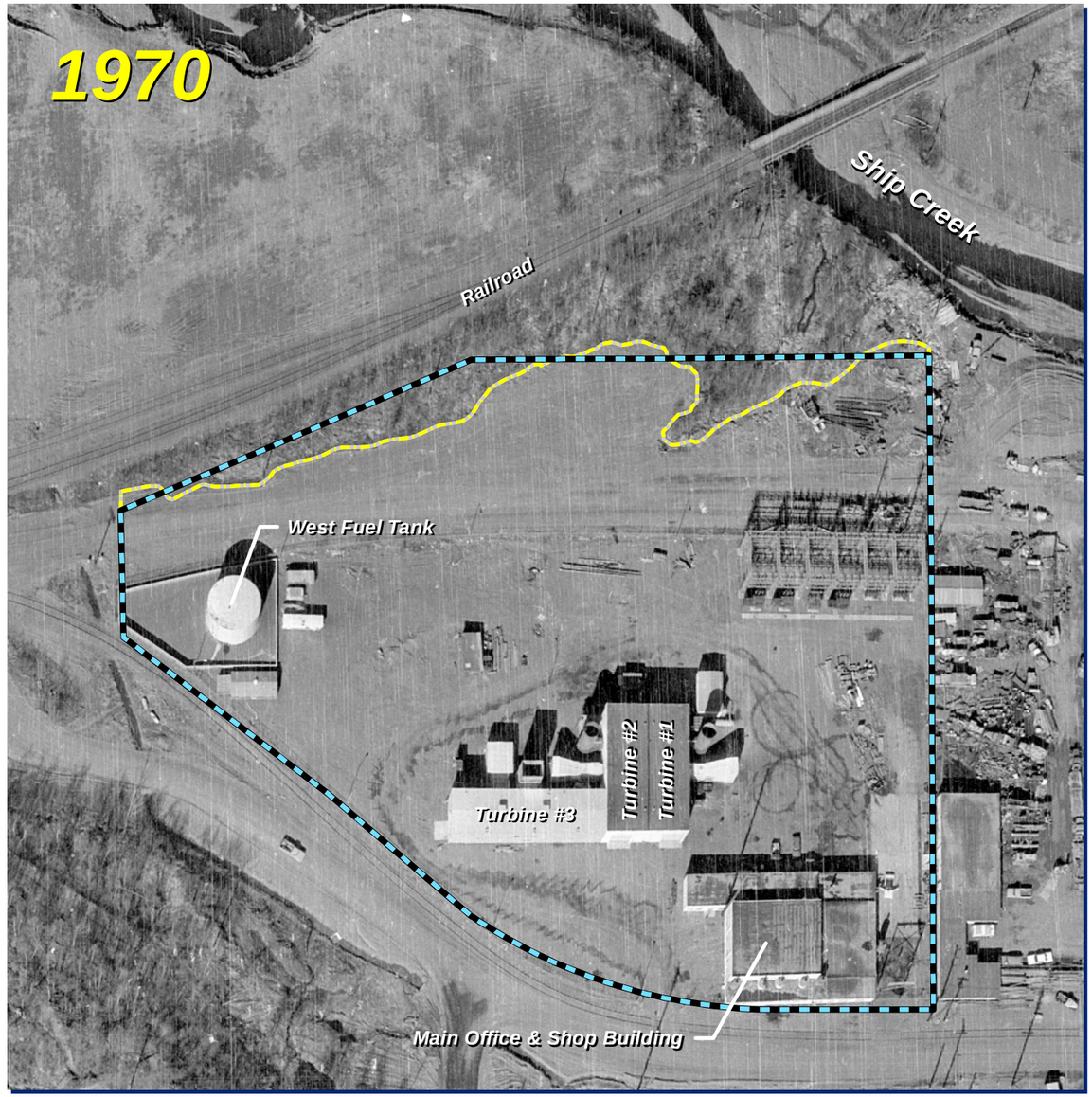
MUNICIPAL LIGHT AND POWER
HANK NIKKELS PLANT #1
821 EAST 1ST AVENUE
ANCHORAGE, ALASKA

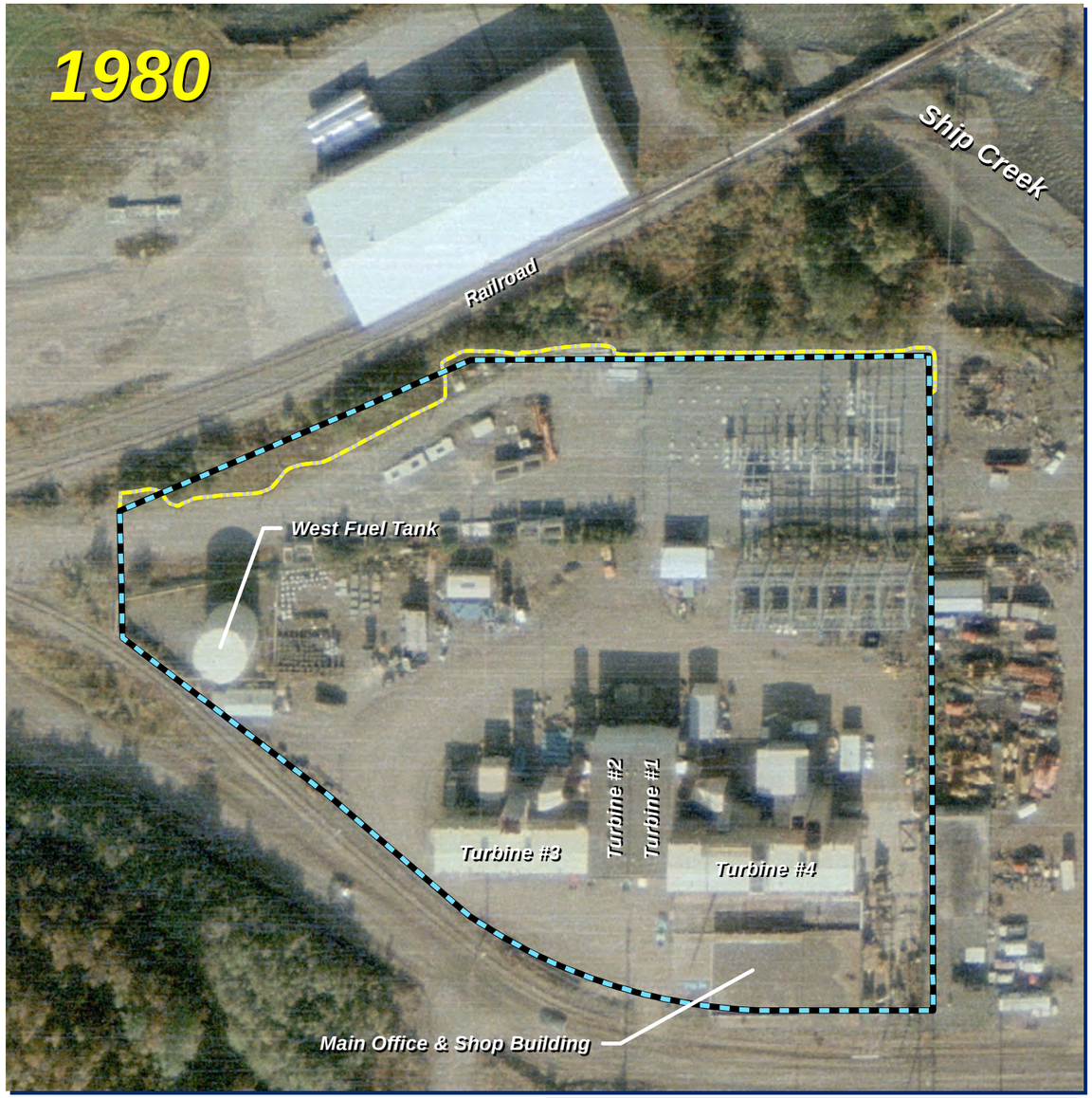
Report
SITE CHARACTERIZATION OF THE
PROPOSED ASPHALT PAVING AREA AND VICINITY
SECURITY FENCE UPGRADE PROJECT

Drawing
FACILITY FOOTPRINT
1959 AND 1963

Drawing	May 2016	Scale	1 in = 100 feet
File Name	F4A Historical 59_63_16.mxd	Project No.	105.00528.11001

Fig. No. 4A





Legend

Current Facility Boundary Fence

Interpreted Facility Usage Area at Time of Photograph

N

0 50 100 200 300 Feet

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ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

SLR

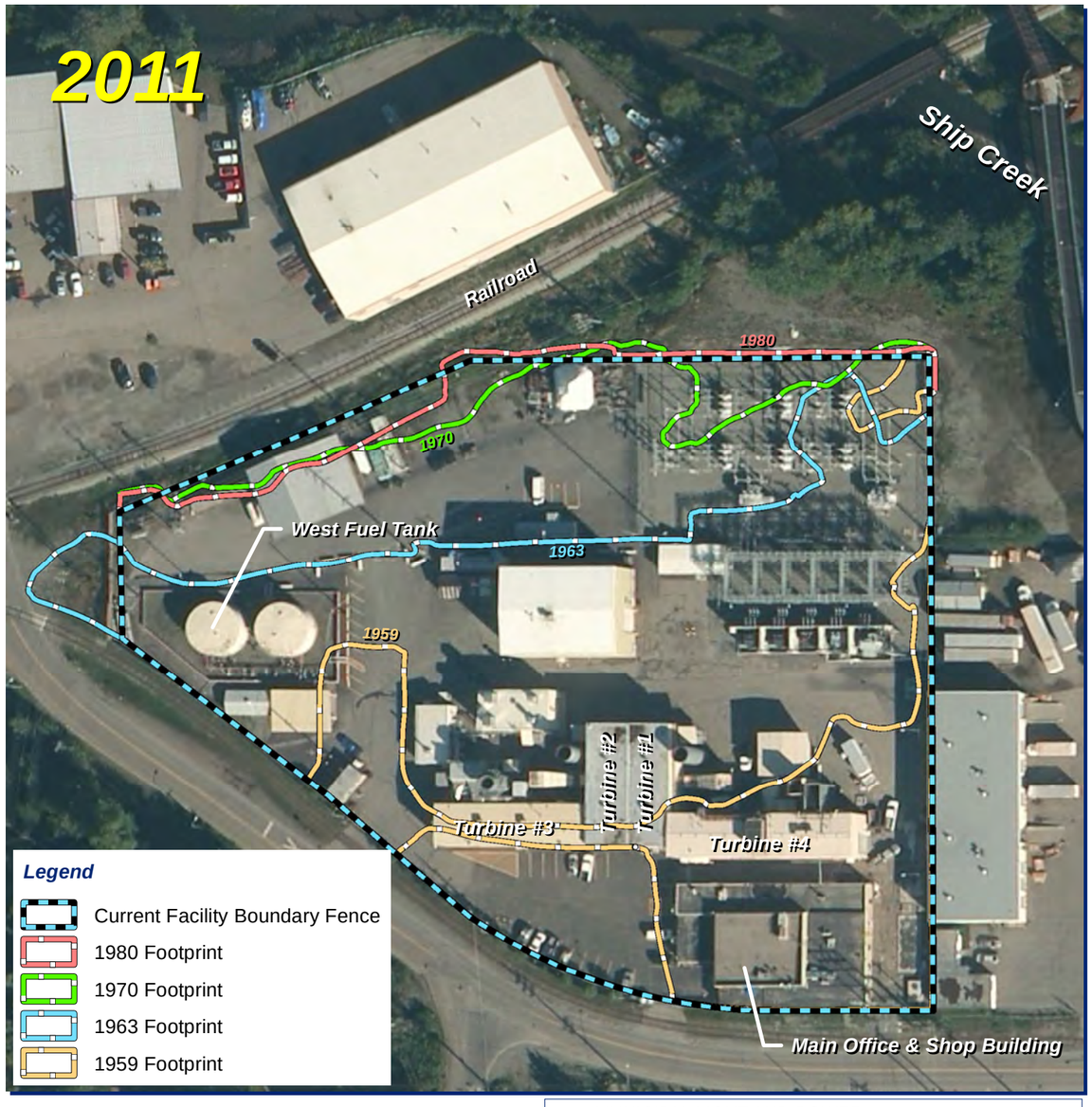
MUNICIPAL LIGHT AND POWER
HANK NIKKELS PLANT #1
821 EAST 1ST AVENUE
ANCHORAGE, ALASKA

Report
SITE CHARACTERIZATION OF THE
PROPOSED ASPHALT PAVING AREA AND VICINITY
SECURITY FENCE UPGRADE PROJECT

Drawing
FACILITY FOOTPRINT
1970 AND 1980

Drawing	December 2016	Scale	1 in = 100 feet
File Name	F4B Historical 70_80_16.mxd	Project No.	105.00528.11001

Fig. No. 4B



N

0 50 100 200 300 Feet

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY.
ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

MUNICIPAL LIGHT AND POWER
HANK NIKKELS PLANT #1
821 EAST 1ST AVENUE
ANCHORAGE, ALASKA

Report
SITE CHARACTERIZATION OF THE
PROPOSED ASPHALT PAVING AREA AND VICINITY
SECURITY FENCE UPGRADE PROJECT

Drawing
FACILITY FOOTPRINT
2002 AND 2011

Drawing	December 2016	Scale	1 in = 100 feet
File Name	F4C Historical 02_15_16.mxd	Project No.	105.00528.11001

Fig. No. 4C

TABLES

Table 1. PCB Soil Sample Results, Asphalt Paving Area and North of Fence, Municipal Light and Power, Plant No. 1

Compound in milligrams per kilogram (mg/kg) →		Total PCB [3]
Regulatory Screening Criteria		
ADEC Method Two Cleanup Level[1]		1
TSCA Cleanup Level [2]		50
Sample ID[4]	**Sample Date**	--
Asphalt Paving Area-Composite Grid Samples		
AP-1 (Primary)	28-Jun-16	0.0613 =, MN
AP-91 (Duplicate)	28-Jun-16	0.138 =, MN
AP-2	28-Jun-16	0.219 J
AP-3	28-Jun-16	0.092 =
AP-4	28-Jun-16	0.324 =
AP-5	28-Jun-16	**1.58 =**
AP-6 (Primary)	28-Jun-16	**1.37 =**
AP-96 (Duplicate)	28-Jun-16	**1.34 =**
AP-7	28-Jun-16	**1.63 =**
AP-8	28-Jun-16	0.525 =
AP-9	28-Jun-16	0.692 =
AP-10	28-Jun-16	0.259 =
AP-11	28-Jun-16	**1,370 =**
AP-12	28-Jun-16	**430 =**
AP-13	28-Jun-16	**3.82 =**
AP-14	28-Jun-16	**3.03 =**
AP-15	29-Jun-16	**109 =**
AP-16	29-Jun-16	**465 =**
AP-17	29-Jun-16	**2.37 =**
AP-18	29-Jun-16	**12.3 =**
AP-19	29-Jun-16	**118 =**
AP-20	29-Jun-16	**11 =**
AP-21	29-Jun-16	0.068 =
AP-22	29-Jun-16	0.272 =
AP-23	29-Jun-16	0.168 =
AP-24 (Primary)	29-Jun-16	0.589 =
AP-924 (Duplicate)	29-Jun-16	0.646 =
AP-25	29-Jun-16	0.0465 J
AP-26	29-Jun-16	0.0676 =
AP-27 (Primary)	29-Jun-16	0.389 =
AP-927 (Duplicate)	29-Jun-16	0.321 =
AP-28	29-Jun-16	0.803 =
AP-29	29-Jun-16	**182 =**
AP-30	29-Jun-16	**26.5 =**
AP-31	29-Jun-16	**210 =**
AP-32	29-Jun-16	**89.4 =**
AP-33	29-Jun-16	0.518 =
AP-34	29-Jun-16	0.0696 =
AP-35	29-Jun-16	0.418 =
AP-36	29-Jun-16	0.0278 J
AP-37	29-Jun-16	0.0187 J
AP-38	29-Jun-16	0.138 =
AP-39	29-Jun-16	0.0423 J
AP-40	29-Jun-16	0.0327 J

Table 1. PCB Soil Sample Results, Asphalt Paving Area and North of Fence, Municipal Light and Power, Plant No. 1

Compound in milligrams per kilogram (mg/kg) →		Total PCB [3]
Regulatory Screening Criteria		
ADEC Method Two Cleanup Level[1]		1
TSCA Cleanup Level [2]		50
Sample ID[4]	**Sample Date**	--
Asphalt Paving Area-Composite Grid Samples (continued)		
AP-41 (Primary)	29-Jun-16	0.0465 J
AP-941 (Duplicate)	29-Jun-16	0.0421 J
AP-42	29-Jun-16	0.0417 J
AP-43	29-Jun-16	0.056 =
AP-44	29-Jun-16	0.0441 J
AP-45	30-Jun-16	0.0278 J
AP-46	30-Jun-16	0.208 =
AP-47	30-Jun-16	0.536 =
AP-48	30-Jun-16	0.0895 =, MN
AP-49 (Primary)	30-Jun-16	0.0524 =
AP-949 (Duplicate)	30-Jun-16	0.0547 =
AP-50	30-Jun-16	0.0489 J
AP-51	30-Jun-16	**15.6 =**
AP-52	30-Jun-16	**746 =**
AP-53	5-Oct-16	0.264 =
AP-54	5-Oct-16	**368 =**
AP-55	5-Oct-16	**68 =**
AP-56 (Primary)	5-Oct-16	**6.61 =**
AP-956 (Duplicate)	5-Oct-16	**6.49 =**
AP-57	5-Oct-16	**30.9 =**
Asphalt Paving Area-Discrete Grid Samples		
E43	5-Oct-16	0.0436 J
F40	5-Oct-16	**22.3 =**
G38	5-Oct-16	0.988 =
M38	5-Oct-16	[0.0259] ND
North of Fence - Composite Grid Samples		
NF-01	5-Oct-16	[0.0303] ND
NF-03	5-Oct-16	0.0399 J
NF-05	5-Oct-16	0.0265 J
NF-08	5-Oct-16	0.123 =
NF-09 (Primary)	5-Oct-16	[0.0284] ND
NF-99 (Duplicate)	5-Oct-16	[0.0284] ND
NF-12	5-Oct-16	0.0249 J
NF-15 (Primary)	5-Oct-16	0.0402 J, MN
NF-915 (Duplicate)	5-Oct-16	0.0797 MN
NF-16	5-Oct-16	0.0425 J
NF-18	5-Oct-16	0.0445 J
NF-19	5-Oct-16	0.0871 =
NF-20	5-Oct-16	[0.0279] ND
NF-22	5-Oct-16	[0.0284] ND
NF-23	5-Oct-16	0.0262 J
NF-25	5-Oct-16	0.11 =
NF-26	5-Oct-16	[0.0283] ND
NF-28	5-Oct-16	0.0601 =
NF-30	5-Oct-16	0.0266 J

Table 1. PCB Soil Sample Results, Asphalt Paving Area and North of Fence, Municipal Light and Power, Plant No. 1

Compound in milligrams per kilogram (mg/kg) →		Total PCB [3]
Regulatory Screening Criteria		
ADEC Method Two Cleanup Level[1]		1
TSCA Cleanup Level [2]		50
Sample ID[4]	**Sample Date**	--
Pavement Borings - Grab Samples[5]		
AP-AA15	28-Jun-16	0.0347 J
AP-BB10	28-Jun-16	[0.106] ND
AP-BB24	28-Jun-16	[0.52] ND
AP-U40	28-Jun-16	[1.085] ND
AP-X21	28-Jun-16	[0.105] ND
AP-Y32	28-Jun-16	[1.065] ND
Maximum Concentration		**1,370 =**

Bold, Yellow Shaded	- The value exceeded 1 mg/Kg (note 1).
Bold and Red Shaded	- The value exceeded 50 mg/Kg (note 2).

Notes

1 - The cleanup level corresponds to human health cleanup level as listed in 18 AAC 75.341, Table B1, Method Two Cleanup Levels (November 6, 2016).

2 - This value corresponds to the concentration at which soil impacted with PCBs is regulated as PCB bulk remediation waste under TSCA (40 CFR 761). Cleanup levels may vary.

3 - Total PCB was calculated by adding any detected value for any Aroclors or reporting the highest non-detect value. Only Aroclor 1260 was detected.

4 - Sample locations are presented by area and sample type in alphabetical and numerical order. Discrete sample IDs correspond to the grid square. See Figure 3 for sample locations.

5 - Depth of composite samples was approximately 3-4 inches below ground surface (bgs). Pavement boring samples were collected from the soil directly below pavement (2 inches bgs).

Data Flags

=	A detected compound, with concentration listed to the left.
J	The reported value was between the DL and LOQ.
MN	The concentration was an estimate due to a sample matrix quality control failure with unknown direction of bias.
ND	The analyte was not detected. The LOD is presented in brackets to the left.

Abbreviations

--	Not applicable or screening criteria does not exist for this compound
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
PCB	Polychlorinated Biphenyl
TSCA	Toxic Substances Control Act

Table 2. DRO/RRO Soil Sample Results, Asphalt Paving Area, Municipal Light and Power Plant No. 1

Compound in milligrams per kilogram (mg/kg)	Screening Criteria		Sample Identification[3]														Maximum Concentration		Frequency of Detection[4]	Frequency Above Screening Criteria[5]
	18 AAC 75 Method Two Under 40 Inch Zone [1]	18 AAC 75 Method Two Under 40 Inch Zone, Migration to Groundwater [2]	AP-4 28-Jun-16		AP-12 28-Jun-16		AP-23 29-Jun-16		AP-33 29-Jun-16		**Primary:** AP-41		**Duplicate:** AP-941		AP-49 30-Jun-16					
			Conc.	Flag	Conc.	Flag	Conc.	Flag	Conc.	Flag	Conc.	Flag	Conc.	Flag	Conc.	Flag	Conc.	Flag		
Fuels (AK102 and AK103)																				
Diesel Range Organics	10,250	250	71.5	J	246	=	23.9	=	8.5	J	46.3	=	45.2	=	65.9	J	246	=	6/6	0/6
Residual Range Organics	10,000	11,000	764	=	822	=	303	=	57.7	=	249	=	260	=	457	=	822	=	6/6	0/6
Percent Solids (SM21 2540G)																				
Total Solids	--	--	95.2	=	94.5	=	96.9	=	96.7	=	94.4	=	94.6	=	95.9	=	--	--	--	--

Notes:

1 - Screening values are from ADEC Method Two cleanup level for the Under 40 Inch Zone, lowest of ingestion or inhalation from 18 AAC 75.341, Table B2 (November 6, 2016).

2 - Screening values are from ADEC Method Two cleanup level for the Under 40 Inch Zone, migration to groundwater from 18 AAC 75.341, Table B2 (November 6, 2016).

3 - The field sample identification number and date collected are provided. All samples are composite samples, for the areas shown on Figure 3.

4 - Number of results detected above the DL / Total number of primary field sample results. The primary and duplicate sample are counted as one.

5 - Number of results exceeding the most stringent screening criteria / Total number of primary field sample results.

Data Flags

=	Analyte detected at concentration listed in column to the left.
J	Result is considered an estimated value because the level is below the laboratory LOQ, but above the DL.
ND	Nondetect, LOD is in brackets in the concentration column.

Abbreviations

--	Not applicable or screening criteria does not exist for this compound
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
mg/kg	milligrams per kilogram

APPENDIX A

Photograph Log

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 1. Photo of the central gravel area sampled during the asphalt paving pre-construction surface soil sampling. Photo faces north.

Photo 2. Composite sampling began in the northeast corner of the project area. Samples were collected on a 5' by 5' grid, compositing up to 9 samples. The grid was maintained using a Trimble R8 rover with Virtual Reference Station (VRS) correction service. Sample AP-2 is laid out with pink flags.

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 3. Collection of composite samples AP-5 (background) and AP-6 (foreground).

Photo 4. Close up view of sample AP-5, following sample collection. Sub-samples for each composite were collected from a target depth of 3-4 inches below ground surface (bgs). Soil was loosened with a decontaminated rock hammer and trowel to allow for sample collection.

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 5. Composite sampling in the central portion of the project area, during the October sampling event. Utility poles #2 and #3 are indicated. Utility pole #3 is located within composite sample AP-32 (PCB = 89.4 mg/kg) and will need to be stabilized during contaminated soil excavation. Photo faces west.

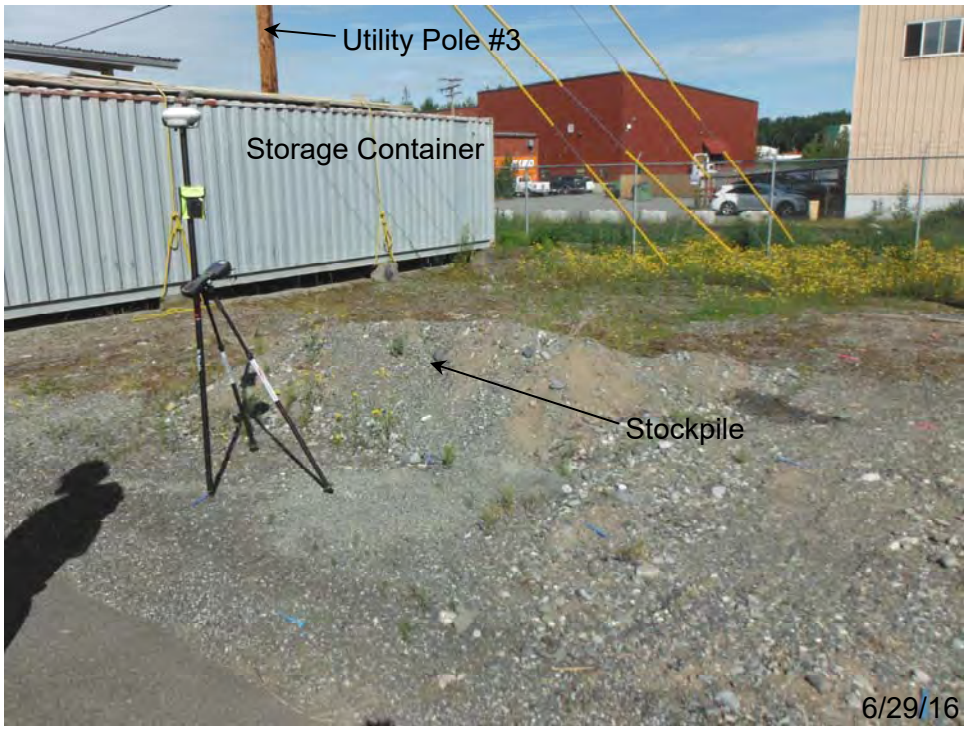


Photo 6. Sample collection to the east of the storage container, which was later removed for supplemental sampling. Sample location AP-24 (blue flags) and AP-23 (pink flags) are laid out. A sub-sample from the small gravel stockpile was included in sample AP-28, adjacent to the samples shown. Photo faces northwest.

ML&P Plant 1: Asphalt Paving Area, October Sampling

Photo 7. In October 2016, additional surface soil samples were collected in the proposed asphalt paving area to characterize previously un-sampled areas. Samples were collected following removal of the storage container. Collection of soil samples AP-54 through AP-57 is shown. Photo faces south.

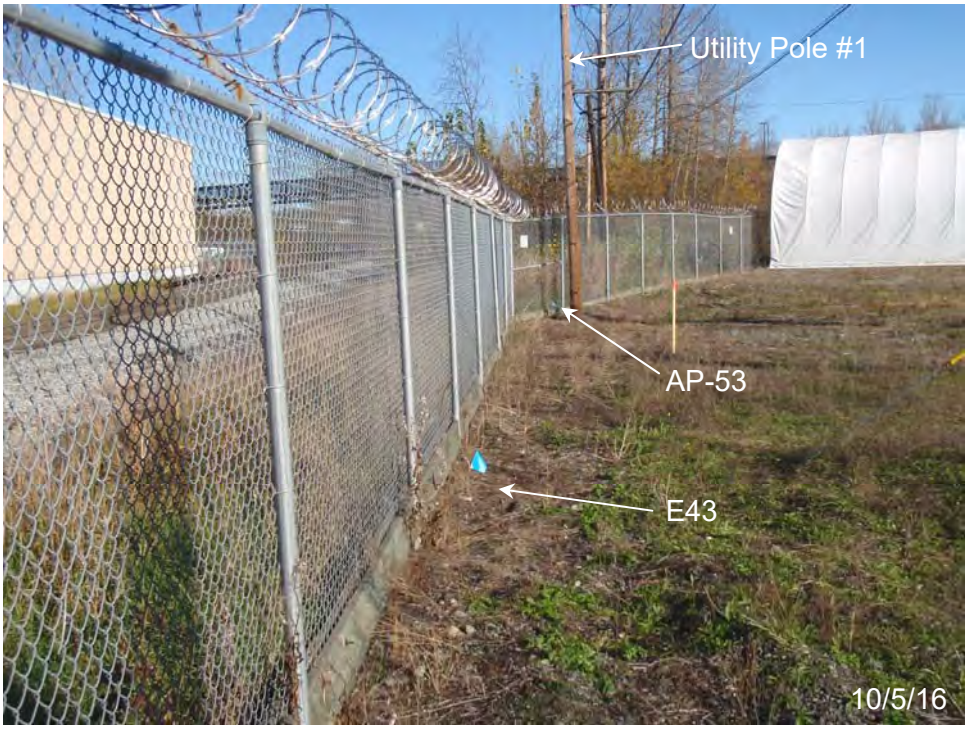


Photo 8. Additional samples were collected along the fence line, including discrete grid locations E43 and composite sample AP-53, shown here. Utility pole #1 is visible adjacent to sample AP-53. The pole is located between samples AP-53 and AP-14, where PCBs were detected at 3.0 mg/kg. Photo faces east.

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 9. Composite surface soil sampling at the western edge of the project area. Sample AP-47 (pink flags) is in the foreground. Photo faces north.

Photo 10. Soil sampling at the western side of the project area. Sample AP-49 is laid out with pink flags. Photo faces north.

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 11. Collection of soil samples underneath pavement in the current asphalt area planned for removal. A 3-inch coring drill was used to remove pavement and reach the soil underneath. Sample location AP-AA15 is shown. Photo faces east.

Photo 12. Discrete sample location AP-AA15, collected from the paved area. Soil underneath the pavement was loosened with a decontaminated rock hammer once the pavement core was removed.

ML&P Plant 1: Asphalt Paving Pre-Construction Sampling

Photo 13. Following receipt of June 2016 sample results, ML&P cordoned off the unpaved area where soil contains PCBs >50 mg/kg. Photo faces northeast.

Photo 14. Signs were posted on the cordoned off area to alert site workers and direct questions to the ML&P Environmental Manager.

ML&P Plant 1: Area (Outside) North of Fence

Photo 15. Surface soil samples were collected north of the facility fence in October 2016, continuing the same grid utilized in the asphalt paving area. Sampling was conducted within 50 feet of the Alaska Railroad tracks, requiring a railroad escort to alert the sampling crew of upcoming trains. Sample grid layout for NF-9 through NF-11 is in the foreground.

Photo 16. Layout of the sample grid north of the facility fence and collection of soil samples. Samples NF-12 and NF-13 are in the foreground. The entire area was vegetated, requiring removal of grass and roots prior to collection of underlying mineral soil. Photo faces east.

ML&P Plant 1: Area (Outside) North of Fence

Photo 17. Following removal of surface vegetation with a decontaminated shovel, a coring device and slide hammer were used to collect soil samples at the target depth of 3-4 inches bgs. Bulk soil subsamples for each composite were collected in a Ziploc bag and later homogenized and placed in sample jars for submittal to the laboratory.

Photo 18. Layout of the sample grid north of the facility fence, with sample NF-1 in the foreground. Photo faces northwest.

APPENDIX B

Soil Sample Logs

PCB Soil Sample Log, June 2016
ML1 Plant 1 Security Fence Upgrade Project

Date 6/28/16
Samplers B. Williams, B. Silviec
Weather p/c, 60°, 5 mph

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
AP-U40	6"	U40	1 discrete	6/28/16	1130	gravel.	PCB	very tight soil some water from drilling, 3" pavement
AP-Y32	4"	Y32	1 discrete	"	1138	gravel	PCB	very tight soil, 3" pavement
AP-BB24	4"	BB24	1-discrete	"	1140	gravel, loose	PCB	2" pavement, older pavement
AP-X21	3"	X21	1-discrete	"	1143	gravel, sand loose	PCB	2" pavement, older pavement
AP-AA15	3"	AA15	1-discrete	"	1147	sandy gravel, loose	PCB	2" pavement, older pavement
AP-BB10	3"	B10	1-discrete	"	1151	sandy gravel, loose	PCB	1.5" pavement, older pavement
AP-1	3-4"	A-C 73-75	9	"	1442	sandy gravel	PCB	Dup AP-91
AP-2	(	D-F 73-75	9	"	1447	sandy gravel	PCB	
AP-3		A-C 70-72	9	"	~~1448~~ 1450 PM	sandy gravel	PCB	
AP-4		D-F 70-72	9	"	1450	sandy gravel	PCB, DRO/RRO	
AP-5		A-C 62-64	9	"	1453	"	PCB	
AP-6		D-F 62-64	9	"	1456	"	PCB	Dup AP-96
AP-7		G-I 62-64	9	"	1458	"	PCB	pavement at I-line
AP-8		A-C 59-61	9	"	1501	gravel 5° yes.	PCB	fence almost at A-line ~6"
AP-9	V	D-E 59-61	9	"	1504	sandy gravel	PCB	

Dups IIII 1

MS/MSD III

PCB Soil Sample Log, June 2016
ML1 Plant 1 Security Fence Upgrade Project

Date 6/28/16, 6/29/16
Samplers BV, BS
Weather p/c, 60°, calm

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
AP-10	3-4"	G-I 59-61	9	6/28/16	1505	sandy gravel	PCB	
AP-11		A-C 56-58	9	"	1541	"	PCB	
AP-12		D-F 56-58	9	"	1543	"	PCB, DRO/RRO	
AP-13		G-I 56-58	9	"	1555	"	PCB	potential road oil? in subsamples, dark, tarry pieces
AP-14		B-D 53-55	9	"	1558	"	PCB	
AP-15		E-G 53-55	9	6/29/16	1115	"	PCB	
AP-16		H-J 53-55	9	"	1119	"	PCB	
AP-17		B-D 50-52	9	"	1120	sandy gravel w/ veg.	PCB	
AP-18		E-G 50-52	9	"	1125	sandy gravel	PCB	MS/MSD, 3x volume
AP-19		H-J 50-52	9	"	1128	"	PCB	
AP-20		K-L 50-52, M50	7	"	1129	"	PCB	
AP-21		C48-49 D47-49 E47-49	8	"	1123	"	PCB	
AP-22		F-H 47-49	9	"	1132	"	PCB	
AP-23		I-K 47-49	9	"	1133	"	PCB, DRO/RRO	~~K47 - small stockpile~~ move K7 1-2' east
AP-24		L-M, 47-49 N47-N48	8	"	1137	"	PCB	~~L47 - in small stockpile~~ move L47, 1-2' east Dup AP-924

PCB Soil Sample Log, June 2016
ML1 Plant 1 Security Fence Upgrade Project

Date 6/29/16
Samplers BU, IBS
Weather SUN, P/C 65°, Simple

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
AP-25	3-4"	D45-46 E-F, 44-46	8	6/29/16	1417	Sandy gravel	PCB	
AP-26		G-I 44-46	9	"	1424	"	PCB	
AP-27		J-L 44-46	9	"	1426	"	PCB	Dup AP-927
AP-28		M-O 44-46	9	"	1430	"	PCB	M46 from small stockpile
AP-29		F-H 41-43	9	"	1433	"	PCB	
AP-30		I41-I43 J-K, 42-43	7	"	1434	"	PCB	
AP-31		G39-40 H38-40, I38-39	7	"	1438	"	PCB	
AP-32		J 38,39 K-L, 38-40	8	"	1440	"	PCB	
AP-33		M39-40 N-O, 39-41	8	"	1442	"	PCB, DRO/12120	
AP-34		P-Q, 39-41 R 39	7	"	1445	"	PCB	
AP-35		H36,37 I-J, 35-37	8	"	1650	"	PCB	
AP-36		K-L, 35-37 M 36-37	8	"	1653	"	PCB	
AP-37		N 36-37 O 36-37 P 37-38	6	"	1654	"	PCB	
AP-38		J-K, 32-34 L 32-33	8	"	1700	"	PCB	MS/MSD -3X volume
AP-39	V	K-L, 29-31 M 29-30	8	"	1701	"	PCB	

PCB Soil Sample Log, June 2016
ML1 Plant 1 Security Fence Upgrade Project

Date 6/29/16, 6/30/16
Samplers BV, BS
Weather Sun, 65°, 5 mph

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
AP-40	3-4"	L-N 26-28	9	6/29/16	1708	sandy gravel	PCB	
AP-41		M24-25 N-O, 23-25	8	"	1709	"	PCB, DRO/RRO	Dup AP-941 Dup PCB's + DRO/RRO
AP-42		O21-22 P-Q, 22-23	6	"	1712	"	PCB	
AP-43		R22-24 S-T, 23-24	7	"	1713	"	PCB	
AP-44	V25	~~U-W, 24-25~~ W 25-26	~~6~~ 5	"	1716	"	PCB	paved under V24 when dug
AP-45		V-X 3-5	9	6/30/16	1111	SP-fine sand w gravel	PCB	contains native fine sand
AP-46		Y-AA 3-5	9	"	1117	sand w gravel	PCB	
AP-47		BB-DD 3-5	9	"	1123	"	PCB	
AP-48		U-W 6-8	9	"	1128	"	PCB	MS/MSD 3x volume
AP-49		X-Z 6-8	9	"	1138	"	PCB, DRO/RRO	dup AP-949, dup PCB only
AP-50		S10-11 T-U, 9-11	8	"	1140	"	PCB	
AP-51		S56-58 K56	4	"	1148	"	PCB	
AP-52		K53-55 L53-54	5	"	1146	"	PCB	

PCB Soil Sample Log, June 2016
MLP Plant 1 Security Fence Upgrade Project

Date 10/5/16 - 10/6/16
Samplers BV / MW / SO / JB
Weather Sunny, 50's

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
AP53	3-4"	A53-A55	3	10/5/16	1335	silty sand	PCB	
AP54		I40, J40	2		1342	"		
AP55		J41, K41	2		1346	"		
AP56		L-M 41-43	6		1348	sandy gravel, angular		dup AP-956
AP57		N-P 42-43	6		1400	sandy gravel		2x vol MS/MSD
E43		E43	1		1418	silty sand		
F40		F40	1		1414	"		
G38		G38	1		1410	"		
M38		M38	1		1400	sand, w/ gravel		
10/6 NF-01		NA65-67	3	10/6/16	945	silty sand		
NF-02		NB-NC 65-67	6		954	silty sand		
NF-03		NA62-64	3		1011	sand, silty, 1 gravel		
NF-04		NB-NC 62-64	6		1025	silty sand, 1 woody debris		
NF-05		NA59-61	3		1038	silty sand some gravel		
NF-06		NB-NC 59-61	6		1045	silty sand		

PCB Soil Sample Log, June 2016
MLP Plant 1 Security Fence Upgrade Project

Date 10/6/16
Samplers BV/BB/MM/SO
Weather Sunny 40-50°

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
NF-07	3-4"	~~ND-NF, 53-61 NA56-58~~	9	10/6/16	~~1057 1350~~	sandy silt	PCB	NF-97 is duplicate
NF-08		NA56-58	3		1120	sandy silt		
NF-09		NB56-58	3		1130	sandy silt		NF-99 is duplicate
NF-10		NC56-58	3		1136			
NF-11		ND-NF 56-58	9		1145	sandy silt		
NF-12		NA53-55	3		1237	sandy silt & organic		
NF-13		NB53-55	3		1244	silt/sand		w/roots
NF-14		~~NC-ND, 53-55~~ NE 54,55	8		1254	silt/sand		w/roots
NF-15		A50-52	3		1314	silt/sand		Dup NF-915
NF-16		NA50-52	3		1328	silty sand		
NF-17		NB50-52	3		1334	sandy silt		
NF-18		B47-49	3		1321	silty sand		
NF-19		A-NA 47-49	6		1326	silt/sand		2X vol MS/MSD
NF-20		D44, C44-C46	4		1343	silty sand		
NF-21		A-B 44-46	6	10/6/16	1350	silty sand		

PCB Soil Sample Log, June 2016
MLP Plant 1 Security Fence Upgrade Project

Date 10/6/16
Samplers BV/BB/MW/SO
Weather Sunny 40-50°

Sample Number	Estimated Sample Depth (ft bgs)	Grid Squares Sampled	Number of Subsamples	Sample Date	Sample Time	Soil Type	Analyses	Location & Comments
NF-22	3-4"	E41-42	2	10/6/16	1345	silty sand	PCB	
NF-23	↓	D41-43	3	↓	1352	silty sand	↓	
NF-24		C41-43	3		1358	"		
NF-25		F38-39	2		1357	silty sand		
NF-26		E38-40	3		1402	sandy silt		
NF-27		D39-40	2		1407	silty sand		roots + debris, 5 removed
NF-28		H35, G35-37	4		1413	silty sand		
NF-29		E-F 35-37	6		1422	"		
NF-30		I32-33 H32-34	5		1416	silty sand		med sand
NF-31	↓	BV3 G-32-34	3	↓	1420	med sand	↓	

APPENDIX C

Analytical Laboratory Data

Quality Assurance Review

ADEC Laboratory Data Review Checklists

LABORATORY DATA
QUALITY ASSURANCE REVIEW
JUNE 2016 DATA

SURFACE SOIL SITE INVESTIGATION OF THE PROPOSED ASPHALT PAVING AREA AND VICINITY, SECURITY FENCE UPGRADE PROJECT

ML&P PLANT 1
ANCHORAGE, ALASKA

AUGUST 2016

Prepared by: Jennifer McLean
Reviewed by: Brent Veltkamp, Bret Berglund

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SLR Project Number 105.00528.11001, Task 360

ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
AK	Alaska
ADEC	Alaska Department of Environmental Conservation
°C	degrees Celsius
CCV	continuing calibration verification
CFR	Code of Federal Regulations
COC	chain of custody
DL	detection limit
DRO	diesel range organics
EDDs	electronic data deliverable
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LODs	limit of detection(s)
LOQ	limit of quantitation
mg/kg	milligrams per kilogram
ML&P	Anchorage Municipal Light and Power
MS	matrix spike
MSD	matrix spike duplicate
NA	Not applicable
ND	non-detect
PARCCS	precision, accuracy, representativeness, comparability, completeness and sensitivity
PCB	polychlorinated biphenyls
QA	quality assurance
QAR	quality assurance review
RPD	relative percent difference
RRO	residual range organics
SDG	sample delivery group
SLR	SLR International Corporation
SGS	SGS North America, Inc.
TSCA	Toxic Substances Control Act

Introduction

This report summarizes a review of analytical data for samples collected from June 28th through June 30th, 2016 in support of planned construction at the Anchorage Municipal Light and Power (ML&P) Plant 1 in Anchorage, Alaska. Samples were collected by SLR International Corporation (SLR). SGS North America, Inc (SGS) provided analytical support to the project. SGS maintains a current Alaska Department of Environmental Conservation (ADEC) Contaminated Sites approval number (UST-005) for analytical methods of interest, as applicable. Table 1 provides a summary of the work order, sample receipt, analytical methods, and analytes.

Table 1 Sample Summary

SDG	Date Collected	Date Received by Laboratory	Temp. Blank	Matrix	Analytical Method	Analyte
1163579	6/28-30/2016	6/30/2016	2.6°C	soil	AK102	DRO
					AK103	RRO
					SW8082A	PCBs

Acronyms to Table 1:
°C – degrees Celsius
DRO – diesel range organics
PCBs – polychlorinated biphenyls
RRO – residual range organics
SDG – sample delivery group

The laboratory final report was presented as a Level II deliverable and included documentation of the delivery group chain-of-custody (COC) and sample receipt condition. A Microsoft Access compatible electronic data deliverable (EDD) was also provided. The pdf laboratory report is provided as Attachment 2.

Quality Assurance Program

A quality assurance (QA) program was followed for this project that addressed project administration, sampling, quality control, and data review. SLR adhered to required and established sampling and COC protocols. The selected laboratory maintains an internal quality assurance program and standard operating procedures.

The analytical data was reviewed for consistency with any project specific requirements, *ADEC Technical Memorandum, Environmental Laboratory Data and Quality Assurance* (ADEC 2009) requirements, analytical method criteria, and laboratory criteria. An ADEC Laboratory Data Review Checklist was completed for the sample delivery group (SDG), and is included as Attachment 1 to this Quality Assurance Review (QAR). A review for any anomalies to the project requirements for precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS) are noted in this QAR, and any data qualifications discussed.

The data review included the following, as applicable:

- Reviewing COC records for completeness, signatures, and dates;
- Identifying any sample receipt or preservation anomalies that could impact data quality;

- Verifying that quality control (QC) blanks (i.e., field blanks, equipment blanks, trip blanks, etc.) were properly prepared, identified, and analyzed;

- Evaluating whether laboratory reporting limits met project goals; Reviewing calibration verification recoveries, to include confirming that the laboratory did not identify that any Continuing Calibration Verification (CCV) recoveries or other calibration related criteria were outside applicable acceptance limits;

- Verifying that surrogate analyses were within recovery acceptance limits;

- Verifying that Laboratory Control Samples (LCS) and Laboratory Control Sample Duplicates (LCSD), and the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were within recovery acceptance limits;

- Evaluating the result relative percent difference (RPD) between primary and duplicate field samples, LCS/LCSD, MS/MSD, and laboratory duplicates; and

- Providing an overall assessment of laboratory data quality and qualifying sample results if necessary.

Data Qualifications

As part of the quality assurance review, qualifiers were applied to data as determined necessary based on specified criteria, or professional judgement. In all cases, the basis for qualification and the applied data flag are discussed in this QAR. Table 2 provides a list of potential qualifiers (i.e., flags). These data flags were appended to the data as appropriate.

Table 2 Potential Data Qualifiers

Qualifier	Definition
Q	One or more laboratory quality control criteria (for example, laboratory control sample (LCS) recovery or surrogate spike recovery) failed. Where applicable, an "H", "L", or "N" was appended to indicate positive, negative, or unknown bias, respectively.
J	Estimated: The analyte was positively identified but the result was outside the calibration range, between the limit of quantitation (LOQ) and the detection limit (DL); the quantitation was an estimate.
M	The concentration was an estimate due to a sample matrix quality control failure. Where applicable, an "H", "L", or "N" will be appended to indicate positive, negative, or unknown bias, respectively.
B	Blank contamination: The analyte was positively identified in the blank (e.g., trip blank and/or method blank) associated with the sample and the concentration reported for the sample was less than five times that of the blank (ten times for metals and common laboratory contaminants methylene chloride and acetone).
P	Sample preservation requirements were not satisfied.

A discussion of the project data quality relative to PARCCS goals and summary of any anomalies or failures requiring data qualifiers follows.

Data Validation

Data Packages
The data package was checked for transcription errors, omissions, or other anomalies. No issues were noted with regards to the data package.

Sample Receipt
The sample receipt documentation was checked for anomalies. No issues were noted with regards to the receipt of the samples.

Holding Times and Preservation
Samples were appropriately preserved and were submitted to SGS. Sample analyses were conducted within holding time criteria. No issues were noted in regard to sample preservation.

Laboratory Method Blanks
Laboratory method blanks were analyzed at the appropriate frequencies. Analytes were not detected in any method blanks.

Trip Blanks
Trip blanks were not required for the methods associated with this work order.

Reporting Limits
For non-detect results, limits of detection (LODs) were compared to applicable cleanup levels for the site. For soil samples, LODs were compared to the 18 Alaska Administrative Code (AAC) 75.341 Tables B1 and B2 (ADEC, November 6, 2016) For polychlorinated biphenyls (PCBs) in soil, LODs were also compared to USEPA Toxic Substances Control Act (TSCA), and subject to the Code of Federal Regulations (CFR) under 40 CFR 761.61. Under 40 CFR 761.61(a) the PCB cleanup level for soil varies from 1 to 100 mg/kg depending upon the site occupancy.

With the exception of samples AP-Y32 and AP-U40 all samples with results of non-detect had LODs of 1 mg/kg or less, meeting the lowest applicable cleanup level. For these samples, while the LODs were slightly above 1 mg/kg (1.065 mg/kg and 1.085 mg/kg), the DLs of 0.660 mg/kg and 0.671 mg/kg achieved the 1 mg/kg ADEC and lowest TSCA cleanup limit; therefore, data quality was not impacted.

Calibration Verifications
CCVs were analyzed at the appropriate frequencies. CCV data was included only in the EDD, and not in the case narrative. All CCV recoveries were within acceptable limits, as reviewed in the EDD.

Internal Standards
Internal standards were not applicable for the methods as reported in this work order.

Surrogate Recovery Results
Surrogate analysis was performed at the required frequencies. Surrogates were not evaluated when samples were analyzed at dilutions of greater than five-fold as surrogate may not accurately quantify target analyte at such dilutions. All surrogate recoveries were within analytical method and SGS percent recovery acceptance limits.

Laboratory Control Samples and Laboratory Control Duplicate Samples
LCS and LCSDs were analyzed at the appropriate frequencies. All LCS and LCSD recoveries and RPDs were within acceptable limits.

Matrix Spike and Matrix Spike Duplicate Samples
MS/MSDs were analyzed at the appropriate frequencies. All MS/MSD percent recoveries and RPDs for samples analyzed at five-fold or lower were within acceptable limits, except as listed in Table 3. All data was usable as qualified.

Table 3 MS/MSD Recovery Qualifications

Parent Sample ID (Laboratory ID)	Method Analyte	DF	MS Rec. (%)	MSD Rec. (%)	RPD (%)	Recovery Limits (%)	RPD Limits (%)	Parent Sample Result (mg/kg)	Data Flag
AP-AA15 (1163579005)	SW8082A Aroclor-1016[1]	1	130	**136**	5	47-134	30	ND [0.026]	NA
AP-48 (1163579063)	SW8082A Aroclor-1016[1]	1	**151**	**194**	25	47-134	30	ND [0.0258]	NA
	SW8082A Aroclor-1260[2]	1	86	136	**33**	53-140	30	0.0895	MN

Notes:
1 - Since a high bias was indicated by the MS/MSDs, and the Aroclor-1016 result was non-detect for the parent sample; data was not qualified. Data was considered not impacted.
2 - The RPD exceedance was likely due to matrix interference.
Acronyms:
DF – dilution factor
NA – not applicable
ND – non-detect

Field Duplicates
For soils, six field duplicates were analyzed for 58 primary samples for PCBs, and one field duplicate was analyzed for six primary samples for diesel range organics (DRO) and residual range organics (RRO). This satisfied the required frequency of one per 10 samples or less per matrix and analyte. Field duplicates were submitted blind to the laboratory. Primary sample and field duplicate pairs are presented in Table 4.

Table 4 Primary Sample and Field Duplicate Pairs

Primary Sample	Field Duplicate	Analyte(s)	RPD
AP-1	AP-91	PCBs	not acceptable
AP-6	AP-96		acceptable
AP-24	AP-924		acceptable
AP-27	AP-927		acceptable
AP-41	AP-941		acceptable
AP-49	AP-949		acceptable
AP-41	AP-941	DRO/RRO	acceptable

Except as noted in Table 5 below, all primary sample/field duplicate RPDs were within the ADEC required 50% for soils. Data were qualified as shown in Table 5. Both Aroclor-1260 and total PCB results were qualified. All affected results were below the lowest applicable cleanup level of 1 mg/kg for PCBs; therefore, data usability was not impacted.

Table 5 Field Duplicate RPD Exceedances

Primary Sample (Duplicate Sample)	Analyte	Primary Result (mg/kg)	Duplicate Result (mg/kg)	RPD	Data Flag
AP-1 (AP-91)	Aroclor-1260	0.0613	0.138	77%	MN

Samples with both results below the LOQ were considered acceptable without qualification.

Laboratory Duplicate Samples
Laboratory duplicates were analyzed for total solids. All duplicate RPDs were within acceptable limits.

Summary of Data Quality Assessment

Precision, Accuracy, Representativeness, Comparability, Completeness, and Sensitivity Summary

- **Precision**: Precision goals were met, except as noted in the MS/MSD and Field Duplicates sections.
- **Accuracy**: Accuracy goals were met, except as noted in the MS/MSD section.
- **Representativeness**: Representativeness goals were met. The samples were collected from planned locations in accordance with ADEC guidelines.
- **Comparability**: Comparability goals were met. The same laboratory and methods were used.
- **Completeness**: The data were 100% complete with respect to analysis.
- **Sensitivity**: Sensitivity goals were met, except as noted in the Reporting Limits section.

This data were considered of good quality and acceptable for use with the noted qualifications. No data were rejected.

References

Alaska Department of Environmental Conservation (ADEC). 2016. 18 Alaska Administrative Code (AAC) 75, Oil and Other Hazardous Substances Pollution Control. November 6, 2016.

ADEC. 2009. Environmental Laboratory Data and Quality Assurance Requirements. Technical Memorandum. March.

Toxic Substances Control Act (TSCA) of 1976. 40 Code of Federal Regulations (CFR) part 761. Amended June 1998.

United States Environmental Protection Agency (USEPA). 1991. Document 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, fourth edition. November.

Attachments

Attachment 1 – ADEC Data Review Checklist
Attachment 2 – Laboratory Deliverable

Attachment 1

ADEC Data Review Checklist

Laboratory Data Review Checklist

Completed by: Jennifer McLean

Title: Project Scientist Date: August 11, 2016

CS Report Name: ML& P, Plant 1, 2016 Construction Report Date: July 26, 2016

Consultant Firm: SLR International Corporation

Laboratory Name: SGS North America, Inc. Laboratory Report Number: 1163579

ADEC File Number: ADEC RecKey Number: NA

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      ☐ Yes ☐ No ☒ NA (Please explain.) Comments:

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. Correct analyses requested?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

None were noted.

e. Data quality or usability affected? (Please explain.)
Comments:

No impact.

4. Case Narrative
a. Present and understandable?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Were all corrective actions documented?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

None were taken.

d. What is the effect on data quality/usability according to the case narrative?
Comments:

No impact.

5. Samples Results
a. Correct analyses performed/reported as requested on COC?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
☐ Yes ☒ No ☐ NA (Please explain.) Comments:

LODs were compared to applicable cleanup levels for the site. For soil samples, LODs were compared to the 18 AAC 75.341 Tables B1 and B2 (ADEC, May 8, 2016). For PCBs in soil, LODs were also compared to USEPA Toxic Substances Control Act (TSCA), and subject to the Code of Federal Regulations (CFR) under 40 CFR 761.61. Under 40 CFR 761.61(a) the PCB cleanup level for soil varies from 1 to 100 mg/Kg depending upon the site occupancy.

With the exception of samples AP-Y32 and AP-U40 all samples with results of non-detect had LODs of 1 mg/Kg or less, meeting the lowest applicable cleanup level. For these samples, while the LODs were slightly above 1 mg/Kg (1.065 mg/Kg and 1.085 mg/Kg), the DLs of 0.660 mg/Kg and 0.671 mg/Kg achieved the 1 mg/Kg ADEC and lowest TSCA cleanup limit.

e. Data quality or usability affected?
Comments:

Because DLs met the lowest applicable limit, data quality or usability were not impacted

6. QC Samples
a. Method Blank
i. One method blank reported per matrix, analysis and 20 samples?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. If above PQL, what samples are affected?
Comments:

Not applicable.

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

v. Data quality or usability affected? (Please explain.)
Comments:

No impact.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS/LCSD or an LCS and an MS/MSD were analyzed with each batch of 20 samples or less.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

No inorganics were analyzed with this work order.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

All LCS/LCSD recoveries were within acceptable limits.
For Aroclor-1016; the MSD recovery for parent sample AP-AA15, and the MS/MSD recoveries for parent sample AP-48 exceeded the acceptable upper control limit.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

All LCS/LCSD RPDs were within acceptable limits.
For Aroclor-1260; the MS/MSD RPD for parent sample AP-48 slightly exceeded the acceptable RPD limit.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Since the LCSs recovered within acceptable limits, only parent samples AP-AA15 and AP-48 were affected.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

For Aroclor-1016; since a high bias was indicated by the MS/MSDs, and the Aroclor-1016 results were non-detect for both parent samples; data was not qualified.
For Aroclor-1260; the parent sample result of 0.0895 mg/Kg was qualified with an "MN," and should be considered estimated (likely due to matrix interference) with unknown bias.

vii. Data quality or usability affected? (Use comment box to explain.)

The qualified result was below the lowest applicable cleanup level; therefore, data quality or usability was not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

Surrogates were not evaluated when samples were analyzed at dilutions of greater than five-fold as surrogate may not accurately quantify target analyte at such dilutions.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)
Comments:

No impact.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): <u>Water and Soil</u>

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

Trip blanks were not required for the analyses associated with this work order.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable.

v. Data quality or usability affected? (Please explain.)

Comments:

No impact.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

For primary sample/field duplicate AP-1/AP-91; for Aroclor-1260, the RPD of 77% exceeded the allowed 50%. This was likely due to matrix interference. Aroclor-1260 and total PCB results for AP-1 and AP-91 were qualified with an "MN", and should be considered estimated with unknown bias.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

All affected results were below the lowest applicable cleanup level of 1 mg/Kg for PCBs; therefore, data quality or usability were not impacted.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

Disposable or dedicated sampling equipment was used for collection of all samples.

i. All results less than PQL?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

ii. If above PQL, what samples are affected?

Comments:

Not applicable.

iii. Data quality or usability affected? (Please explain.)

Comments:

Not applicable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

Attachment 2

Laboratory Deliverable

Laboratory Report of Analysis

To: SLR Alaska-Anchorage
2700 Gambell Street, Suite 200
Anchorage, AK 99503
907-222-1112

Report Number: **1163579**

Client Project: **105.00528.11001 Task 360 MLP**

Dear Bret Berglund,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

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t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **SLR Alaska-Anchorage**
SGS Project: **1163579**
Project Name/Site: **105.00528.11001 Task 360 MLP**
Project Contact: **Bret Berglund**

Refer to sample receipt form for information on sample condition.

AP-U40 (1163579001) PS

8082A - The LOQ is elevated. The sample was diluted due to the dark color of the extract.

AP-Y32 (1163579002) PS

8082A - The LOQ is elevated. The sample was diluted due to the dark color of the extract.

AP-BB24 (1163579003) PS

8082A - The LOQ is elevated. The sample was diluted due to the dark color of the extract.

AP-11 (1163579019) PS

8082A - Surrogate recovery for decachlorobiphenyl (0%) does not meet QC criteria due to sample dilution (1000X).

AP-15 (1163579023) PS

8082A - Surrogate recovery for decachlorobiphenyl (200%) does not meet QC criteria due to matrix interference.

AP-16 (1163579024) PS

8082A - Surrogate recovery for decachlorobiphenyl (500%) does not meet QC criteria due to matrix interference.

AP-18 MS (1163579027) BMS

8082A - PCB Aroclor 1016 BMS recovery (160%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.
8082A - PCB Aroclor 1260 BMS recovery (-199%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

AP-48 MS (1163579064) BMS

8082A - PCB Aroclor 1016 BMS recovery (151%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

AP-18 MSD (1163579028) BMSD

8082A - PCB Aroclor 1016 BMSD recovery (150%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.
8082A - PCB Aroclor 1260 BMSD recovery (-186%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

AP-48 MSD (1163579065) BMSD

8082A - PCB Aroclor 1016 BMS recovery (194%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.
8082A - PCB Aroclor 1260 BMS/BMSD RPD (33.1) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

1163579005MSD (1335095) MSD

8082A - PCB Aroclor 1016 MSD recovery (136%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
AP-U40	1163579001	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-Y32	1163579002	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-BB24	1163579003	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-X21	1163579004	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-AA15	1163579005	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-BB10	1163579006	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-1	1163579007	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-2	1163579008	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-3	1163579009	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-4	1163579010	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-5	1163579011	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-6	1163579012	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-91	1163579013	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-96	1163579014	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-7	1163579015	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-8	1163579016	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-9	1163579017	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-10	1163579018	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-11	1163579019	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-12	1163579020	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-13	1163579021	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-14	1163579022	06/28/2016	06/30/2016	Soil/Solid (dry weight)
AP-15	1163579023	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-16	1163579024	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-17	1163579025	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-18	1163579026	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-18 MS	1163579027	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-18 MSD	1163579028	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-19	1163579029	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-20	1163579030	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-21	1163579031	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-22	1163579032	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-23	1163579033	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-24	1163579034	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-924	1163579035	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-25	1163579036	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-26	1163579037	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-27	1163579038	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-927	1163579039	06/29/2016	06/30/2016	Soil/Solid (dry weight)

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
AP-28	1163579040	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-29	1163579041	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-30	1163579042	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-31	1163579043	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-33	1163579044	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-32	1163579045	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-34	1163579046	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-35	1163579047	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-36	1163579048	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-37	1163579049	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-38	1163579050	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-38 MS	1163579051	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-38 MSD	1163579052	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-39	1163579053	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-40	1163579054	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-41	1163579055	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-941	1163579056	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-42	1163579057	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-43	1163579058	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-44	1163579059	06/29/2016	06/30/2016	Soil/Solid (dry weight)
AP-45	1163579060	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-46	1163579061	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-47	1163579062	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-48	1163579063	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-48 MS	1163579064	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-48 MSD	1163579065	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-49	1163579066	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-949	1163579067	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-50	1163579068	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-51	1163579069	06/30/2016	06/30/2016	Soil/Solid (dry weight)
AP-52	1163579070	06/30/2016	06/30/2016	Soil/Solid (dry weight)

Method	Method Description
AK102	Diesel/Residual Range Organics
AK103	Diesel/Residual Range Organics
SM21 2540G	Percent Solids SM2540G
SW8082A	SW8082 PCB's

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Detectable Results Summary

Client Sample ID: **AP-AA15**			
Lab Sample ID: 1163579005	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	34.7J	ug/Kg
Client Sample ID: **AP-1**			
Lab Sample ID: 1163579007	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	61.3	ug/Kg
Client Sample ID: **AP-2**			
Lab Sample ID: 1163579008	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	219J	ug/Kg
Client Sample ID: **AP-3**			
Lab Sample ID: 1163579009	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	92.0	ug/Kg
Client Sample ID: **AP-4**			
Lab Sample ID: 1163579010	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	324	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	71.5J	mg/Kg
	Residual Range Organics	764	mg/Kg
Client Sample ID: **AP-5**			
Lab Sample ID: 1163579011	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	1580	ug/Kg
Client Sample ID: **AP-6**			
Lab Sample ID: 1163579012	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	1370	ug/Kg
Client Sample ID: **AP-91**			
Lab Sample ID: 1163579013	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	138	ug/Kg
Client Sample ID: **AP-96**			
Lab Sample ID: 1163579014	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	1340	ug/Kg
Client Sample ID: **AP-7**			
Lab Sample ID: 1163579015	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	1630	ug/Kg
Client Sample ID: **AP-8**			
Lab Sample ID: 1163579016	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	525	ug/Kg
Client Sample ID: **AP-9**			
Lab Sample ID: 1163579017	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	692	ug/Kg
Client Sample ID: **AP-10**			
Lab Sample ID: 1163579018	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	259	ug/Kg

Detectable Results Summary

Client Sample ID: **AP-11**			
Lab Sample ID: 1163579019	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	1370000	ug/Kg
Client Sample ID: **AP-12**			
Lab Sample ID: 1163579020	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	430000	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	246	mg/Kg
	Residual Range Organics	822	mg/Kg
Client Sample ID: **AP-13**			
Lab Sample ID: 1163579021	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	3820	ug/Kg
Client Sample ID: **AP-14**			
Lab Sample ID: 1163579022	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	3030	ug/Kg
Client Sample ID: **AP-15**			
Lab Sample ID: 1163579023	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	109000	ug/Kg
Client Sample ID: **AP-16**			
Lab Sample ID: 1163579024	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	465000	ug/Kg
Client Sample ID: **AP-17**			
Lab Sample ID: 1163579025	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	2370	ug/Kg
Client Sample ID: **AP-18**			
Lab Sample ID: 1163579026	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	12300	ug/Kg
Client Sample ID: **AP-19**			
Lab Sample ID: 1163579029	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	118000	ug/Kg
Client Sample ID: **AP-20**			
Lab Sample ID: 1163579030	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	11000	ug/Kg
Client Sample ID: **AP-21**			
Lab Sample ID: 1163579031	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	68.0	ug/Kg
Client Sample ID: **AP-22**			
Lab Sample ID: 1163579032	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	272	ug/Kg

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Detectable Results Summary

Client Sample ID: **AP-23**
Lab Sample ID: 1163579033

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	168	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	23.9	mg/Kg
	Residual Range Organics	303	mg/Kg

Client Sample ID: **AP-24**
Lab Sample ID: 1163579034

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	589	ug/Kg

Client Sample ID: **AP-924**
Lab Sample ID: 1163579035

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	646	ug/Kg

Client Sample ID: **AP-25**
Lab Sample ID: 1163579036

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	46.5J	ug/Kg

Client Sample ID: **AP-26**
Lab Sample ID: 1163579037

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	67.6	ug/Kg

Client Sample ID: **AP-27**
Lab Sample ID: 1163579038

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	389	ug/Kg

Client Sample ID: **AP-927**
Lab Sample ID: 1163579039

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	321	ug/Kg

Client Sample ID: **AP-28**
Lab Sample ID: 1163579040

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	803	ug/Kg

Client Sample ID: **AP-29**
Lab Sample ID: 1163579041

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	182000	ug/Kg

Client Sample ID: **AP-30**
Lab Sample ID: 1163579042

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	26500	ug/Kg

Client Sample ID: **AP-31**
Lab Sample ID: 1163579043

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	210000	ug/Kg

Client Sample ID: **AP-33**
Lab Sample ID: 1163579044

	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	518	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	8.50J	mg/Kg
	Residual Range Organics	57.7	mg/Kg

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Detectable Results Summary

Client Sample ID: **AP-32**			
Lab Sample ID: 1163579045	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	89400	ug/Kg
Client Sample ID: **AP-34**			
Lab Sample ID: 1163579046	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	69.6	ug/Kg
Client Sample ID: **AP-35**			
Lab Sample ID: 1163579047	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	418	ug/Kg
Client Sample ID: **AP-36**			
Lab Sample ID: 1163579048	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	27.8J	ug/Kg
Client Sample ID: **AP-37**			
Lab Sample ID: 1163579049	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	18.7J	ug/Kg
Client Sample ID: **AP-38**			
Lab Sample ID: 1163579050	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	138	ug/Kg
Client Sample ID: **AP-39**			
Lab Sample ID: 1163579053	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	42.3J	ug/Kg
Client Sample ID: **AP-40**			
Lab Sample ID: 1163579054	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	32.7J	ug/Kg
Client Sample ID: **AP-41**			
Lab Sample ID: 1163579055	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	46.5J	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	46.3	mg/Kg
	Residual Range Organics	249	mg/Kg
Client Sample ID: **AP-941**			
Lab Sample ID: 1163579056	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	42.1J	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	45.2	mg/Kg
	Residual Range Organics	260	mg/Kg
Client Sample ID: **AP-42**			
Lab Sample ID: 1163579057	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	41.7J	ug/Kg
Client Sample ID: **AP-43**			
Lab Sample ID: 1163579058	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	56.0	ug/Kg

Detectable Results Summary

Client Sample ID: **AP-44**			
Lab Sample ID: 1163579059	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	44.1J	ug/Kg
Client Sample ID: **AP-45**			
Lab Sample ID: 1163579060	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	27.8J	ug/Kg
Client Sample ID: **AP-46**			
Lab Sample ID: 1163579061	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	208	ug/Kg
Client Sample ID: **AP-47**			
Lab Sample ID: 1163579062	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	536	ug/Kg
Client Sample ID: **AP-48**			
Lab Sample ID: 1163579063	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	89.5	ug/Kg
Client Sample ID: **AP-49**			
Lab Sample ID: 1163579066	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	52.4	ug/Kg
Semivolatile Organic Fuels	Diesel Range Organics	65.9J	mg/Kg
	Residual Range Organics	457	mg/Kg
Client Sample ID: **AP-949**			
Lab Sample ID: 1163579067	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	54.7	ug/Kg
Client Sample ID: **AP-50**			
Lab Sample ID: 1163579068	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	48.9J	ug/Kg
Client Sample ID: **AP-51**			
Lab Sample ID: 1163579069	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	15600	ug/Kg
Client Sample ID: **AP-52**			
Lab Sample ID: 1163579070	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	746000	ug/Kg

Results of **AP-U40**

Client Sample ID: **AP-U40**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579001
Lab Project ID: 1163579

Collection Date: 06/28/16 11:30
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):91.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	271	U	541	162	ug/Kg	5		07/25/16 19:17
Aroclor-1221	1085	U	2170	671	ug/Kg	5		07/25/16 19:17
Aroclor-1232	271	U	541	162	ug/Kg	5		07/25/16 19:17
Aroclor-1242	271	U	541	162	ug/Kg	5		07/25/16 19:17
Aroclor-1248	271	U	541	162	ug/Kg	5		07/25/16 19:17
Aroclor-1254	271	U	541	162	ug/Kg	5		07/25/16 19:17
Aroclor-1260	271	U	541	162	ug/Kg	5		07/25/16 19:17
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	5		07/25/16 19:17

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 19:17
Container ID: 1163579001-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.62 g
Prep Extract Vol: 10 mL

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Results of **AP-Y32**

Client Sample ID: **AP-Y32**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579002
Lab Project ID: 1163579

Collection Date: 06/28/16 11:38
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):92.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	266	U	532	160	ug/Kg	5		07/25/16 19:30
Aroclor-1221	1065	U	2130	660	ug/Kg	5		07/25/16 19:30
Aroclor-1232	266	U	532	160	ug/Kg	5		07/25/16 19:30
Aroclor-1242	266	U	532	160	ug/Kg	5		07/25/16 19:30
Aroclor-1248	266	U	532	160	ug/Kg	5		07/25/16 19:30
Aroclor-1254	266	U	532	160	ug/Kg	5		07/25/16 19:30
Aroclor-1260	266	U	532	160	ug/Kg	5		07/25/16 19:30
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	5		07/25/16 19:30

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 19:30
Container ID: 1163579002-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.966 g
Prep Extract Vol: 10 mL

Results of **AP-BB24**

Client Sample ID: **AP-BB24**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579003
Lab Project ID: 1163579

Collection Date: 06/28/16 11:40
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Aroclor-1221	520	U	1040	323	ug/Kg	5		07/25/16 19:43
Aroclor-1232	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Aroclor-1242	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Aroclor-1248	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Aroclor-1254	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Aroclor-1260	131	U	261	78.2	ug/Kg	5		07/25/16 19:43
Surrogates								
Decachlorobiphenyl (surr)	105		60-125		%	5		07/25/16 19:43

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 19:43
Container ID: 1163579003-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.854 g
Prep Extract Vol: 5 mL

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Results of **AP-X21**

Client Sample ID: **AP-X21**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579004
Lab Project ID: 1163579

Collection Date: 06/28/16 11:43
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Aroclor-1221	105	U	209	64.9	ug/Kg	1		07/23/16 16:14
Aroclor-1232	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Aroclor-1242	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Aroclor-1248	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Aroclor-1254	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Aroclor-1260	26.1	U	52.3	15.7	ug/Kg	1		07/23/16 16:14
Surrogates								
Decachlorobiphenyl (surr)	94		60-125		%	1		07/23/16 16:14

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 16:14
Container ID: 1163579004-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.694 g
Prep Extract Vol: 5 mL

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Results of **AP-AA15**

Client Sample ID: **AP-AA15**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579005
Lab Project ID: 1163579

Collection Date: 06/28/16 11:47
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.0	U	52.0	15.6	ug/Kg	1		07/25/16 19:57
Aroclor-1221	104	U	208	64.5	ug/Kg	1		07/25/16 19:57
Aroclor-1232	26.0	U	52.0	15.6	ug/Kg	1		07/25/16 19:57
Aroclor-1242	26.0	U	52.0	15.6	ug/Kg	1		07/25/16 19:57
Aroclor-1248	26.0	U	52.0	15.6	ug/Kg	1		07/25/16 19:57
Aroclor-1254	26.0	U	52.0	15.6	ug/Kg	1		07/25/16 19:57
Aroclor-1260	34.7	J	52.0	15.6	ug/Kg	1		07/25/16 19:57
Surrogates								
Decachlorobiphenyl (surr)	98		60-125		%	1		07/25/16 19:57

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 19:57
Container ID: 1163579005-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.713 g
Prep Extract Vol: 5 mL

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Results of **AP-BB10**

Client Sample ID: **AP-BB10**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579006
Lab Project ID: 1163579

Collection Date: 06/28/16 11:51
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Aroclor-1221	106	U	211	65.3	ug/Kg	1		07/22/16 21:55
Aroclor-1232	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Aroclor-1242	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Aroclor-1248	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Aroclor-1254	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Aroclor-1260	26.4	U	52.7	15.8	ug/Kg	1		07/22/16 21:55
Surrogates								
Decachlorobiphenyl (surr)	85		60-125		%	1		07/22/16 21:55

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 21:55
Container ID: 1163579006-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.852 g
Prep Extract Vol: 5 mL

Results of **AP-1**

Client Sample ID: **AP-1**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579007
Lab Project ID: 1163579

Collection Date: 06/28/16 14:42
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.5	U	53.0	15.9	ug/Kg	1		07/23/16 16:00
Aroclor-1221	106	U	212	65.7	ug/Kg	1		07/23/16 16:00
Aroclor-1232	26.5	U	53.0	15.9	ug/Kg	1		07/23/16 16:00
Aroclor-1242	26.5	U	53.0	15.9	ug/Kg	1		07/23/16 16:00
Aroclor-1248	26.5	U	53.0	15.9	ug/Kg	1		07/23/16 16:00
Aroclor-1254	26.5	U	53.0	15.9	ug/Kg	1		07/23/16 16:00
Aroclor-1260	61.3		53.0	15.9	ug/Kg	1		07/23/16 16:00
Surrogates								
Decachlorobiphenyl (surr)	89		60-125		%	1		07/23/16 16:00

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 16:00
Container ID: 1163579007-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.761 g
Prep Extract Vol: 5 mL

Results of **AP-2**

Client Sample ID: **AP-2**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579008
Lab Project ID: 1163579

Collection Date: 06/28/16 14:47
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	130	U	259	77.7	ug/Kg	5		07/23/16 16:28
Aroclor-1221	520	U	1040	321	ug/Kg	5		07/23/16 16:28
Aroclor-1232	130	U	259	77.7	ug/Kg	5		07/23/16 16:28
Aroclor-1242	130	U	259	77.7	ug/Kg	5		07/23/16 16:28
Aroclor-1248	130	U	259	77.7	ug/Kg	5		07/23/16 16:28
Aroclor-1254	130	U	259	77.7	ug/Kg	5		07/23/16 16:28
Aroclor-1260	219	J	259	77.7	ug/Kg	5		07/23/16 16:28
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	5		07/23/16 16:28

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 16:28
Container ID: 1163579008-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.955 g
Prep Extract Vol: 5 mL

Results of **AP-3**

Client Sample ID: **AP-3**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579009
Lab Project ID: 1163579

Collection Date: 06/28/16 14:48
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.9	U	51.8	15.5	ug/Kg	1		07/23/16 16:41
Aroclor-1221	104	U	207	64.2	ug/Kg	1		07/23/16 16:41
Aroclor-1232	25.9	U	51.8	15.5	ug/Kg	1		07/23/16 16:41
Aroclor-1242	25.9	U	51.8	15.5	ug/Kg	1		07/23/16 16:41
Aroclor-1248	25.9	U	51.8	15.5	ug/Kg	1		07/23/16 16:41
Aroclor-1254	25.9	U	51.8	15.5	ug/Kg	1		07/23/16 16:41
Aroclor-1260	92.0		51.8	15.5	ug/Kg	1		07/23/16 16:41
Surrogates								
Decachlorobiphenyl (surr)	91		60-125		%	1		07/23/16 16:41

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 16:41
Container ID: 1163579009-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.85 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

J flagging is activated

Results of **AP-4**

Client Sample ID: **AP-4**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579010
Lab Project ID: 1163579

Collection Date: 06/28/16 14:50
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	131	U	261	78.2	ug/Kg	5		07/23/16 16:56
Aroclor-1221	520	U	1040	323	ug/Kg	5		07/23/16 16:56
Aroclor-1232	131	U	261	78.2	ug/Kg	5		07/23/16 16:56
Aroclor-1242	131	U	261	78.2	ug/Kg	5		07/23/16 16:56
Aroclor-1248	131	U	261	78.2	ug/Kg	5		07/23/16 16:56
Aroclor-1254	131	U	261	78.2	ug/Kg	5		07/23/16 16:56
Aroclor-1260	324		261	78.2	ug/Kg	5		07/23/16 16:56
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	5		07/23/16 16:56

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 16:56
Container ID: 1163579010-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.665 g
Prep Extract Vol: 5 mL

Results of **AP-4**

Client Sample ID: **AP-4**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579010
Lab Project ID: 1163579

Collection Date: 06/28/16 14:50
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.2
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	71.5	J	105	32.5	mg/Kg	1		07/14/16 05:45
Surrogates								
5a Androstane (surr)	100		50-150		%	1		07/14/16 05:45

Batch Information

Analytical Batch: XFC12532
Analytical Method: AK102
Analyst: AEE
Analytical Date/Time: 07/14/16 05:45
Container ID: 1163579010-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.077 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	764		105	32.5	mg/Kg	1		07/14/16 05:45
Surrogates								
n-Triacontane-d62 (surr)	101		50-150		%	1		07/14/16 05:45

Batch Information

Analytical Batch: XFC12532
Analytical Method: AK103
Analyst: AEE
Analytical Date/Time: 07/14/16 05:45
Container ID: 1163579010-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.077 g
Prep Extract Vol: 5 mL

Results of **AP-5**

Client Sample ID: **AP-5**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579011
Lab Project ID: 1163579

Collection Date: 06/28/16 14:53
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	129	U	258	77.4	ug/Kg	5		07/23/16 17:23
Aroclor-1221	515	U	1030	320	ug/Kg	5		07/23/16 17:23
Aroclor-1232	129	U	258	77.4	ug/Kg	5		07/23/16 17:23
Aroclor-1242	129	U	258	77.4	ug/Kg	5		07/23/16 17:23
Aroclor-1248	129	U	258	77.4	ug/Kg	5		07/23/16 17:23
Aroclor-1254	129	U	258	77.4	ug/Kg	5		07/23/16 17:23
Aroclor-1260	1580		258	77.4	ug/Kg	5		07/23/16 17:23
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	5		07/23/16 17:23

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 17:23
Container ID: 1163579011-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.596 g
Prep Extract Vol: 5 mL

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Results of **AP-6**

Client Sample ID: **AP-6**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579012
Lab Project ID: 1163579

Collection Date: 06/28/16 14:56
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.5	15.5	ug/Kg	1		07/22/16 19:45
Aroclor-1221	103	U	206	63.9	ug/Kg	1		07/22/16 19:45
Aroclor-1232	25.8	U	51.5	15.5	ug/Kg	1		07/22/16 19:45
Aroclor-1242	25.8	U	51.5	15.5	ug/Kg	1		07/22/16 19:45
Aroclor-1248	25.8	U	51.5	15.5	ug/Kg	1		07/22/16 19:45
Aroclor-1254	25.8	U	51.5	15.5	ug/Kg	1		07/22/16 19:45
Aroclor-1260	1370		51.5	15.5	ug/Kg	1		07/22/16 19:45
Surrogates								
Decachlorobiphenyl (surr)	97		60-125		%	1		07/22/16 19:45

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 19:45
Container ID: 1163579012-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.651 g
Prep Extract Vol: 5 mL

Results of **AP-91**

Client Sample ID: **AP-91**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579013
Lab Project ID: 1163579

Collection Date: 06/28/16 14:42
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.6	15.8	ug/Kg	1		07/22/16 19:58
Aroclor-1221	105	U	210	65.2	ug/Kg	1		07/22/16 19:58
Aroclor-1232	26.3	U	52.6	15.8	ug/Kg	1		07/22/16 19:58
Aroclor-1242	26.3	U	52.6	15.8	ug/Kg	1		07/22/16 19:58
Aroclor-1248	26.3	U	52.6	15.8	ug/Kg	1		07/22/16 19:58
Aroclor-1254	26.3	U	52.6	15.8	ug/Kg	1		07/22/16 19:58
Aroclor-1260	138		52.6	15.8	ug/Kg	1		07/22/16 19:58
Surrogates								
Decachlorobiphenyl (surr)	102		60-125		%	1		07/22/16 19:58

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 19:58
Container ID: 1163579013-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.904 g
Prep Extract Vol: 5 mL

Results of **AP-96**

Client Sample ID: **AP-96**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579014
Lab Project ID: 1163579

Collection Date: 06/28/16 14:56
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.6	15.5	ug/Kg	1		07/22/16 20:11
Aroclor-1221	103	U	206	64.0	ug/Kg	1		07/22/16 20:11
Aroclor-1232	25.8	U	51.6	15.5	ug/Kg	1		07/22/16 20:11
Aroclor-1242	25.8	U	51.6	15.5	ug/Kg	1		07/22/16 20:11
Aroclor-1248	25.8	U	51.6	15.5	ug/Kg	1		07/22/16 20:11
Aroclor-1254	25.8	U	51.6	15.5	ug/Kg	1		07/22/16 20:11
Aroclor-1260	1340		51.6	15.5	ug/Kg	1		07/22/16 20:11
Surrogates								
Decachlorobiphenyl (surr)	94		60-125		%	1		07/22/16 20:11

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 20:11
Container ID: 1163579014-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.633 g
Prep Extract Vol: 5 mL

Results of **AP-7**

Client Sample ID: **AP-7**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579015
Lab Project ID: 1163579

Collection Date: 06/28/16 14:58
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	128	U	256	76.9	ug/Kg	5		07/23/16 17:37
Aroclor-1221	515	U	1030	318	ug/Kg	5		07/23/16 17:37
Aroclor-1232	128	U	256	76.9	ug/Kg	5		07/23/16 17:37
Aroclor-1242	128	U	256	76.9	ug/Kg	5		07/23/16 17:37
Aroclor-1248	128	U	256	76.9	ug/Kg	5		07/23/16 17:37
Aroclor-1254	128	U	256	76.9	ug/Kg	5		07/23/16 17:37
Aroclor-1260	1630		256	76.9	ug/Kg	5		07/23/16 17:37
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	5		07/23/16 17:37

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 17:37
Container ID: 1163579015-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.648 g
Prep Extract Vol: 5 mL

Results of **AP-8**

Client Sample ID: **AP-8**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579016
Lab Project ID: 1163579

Collection Date: 06/28/16 15:01
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.0	U	52.0	15.6	ug/Kg	1		07/22/16 20:24
Aroclor-1221	104	U	208	64.5	ug/Kg	1		07/22/16 20:24
Aroclor-1232	26.0	U	52.0	15.6	ug/Kg	1		07/22/16 20:24
Aroclor-1242	26.0	U	52.0	15.6	ug/Kg	1		07/22/16 20:24
Aroclor-1248	26.0	U	52.0	15.6	ug/Kg	1		07/22/16 20:24
Aroclor-1254	26.0	U	52.0	15.6	ug/Kg	1		07/22/16 20:24
Aroclor-1260	525		52.0	15.6	ug/Kg	1		07/22/16 20:24
Surrogates								
Decachlorobiphenyl (surr)	109		60-125		%	1		07/22/16 20:24

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 20:24
Container ID: 1163579016-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.823 g
Prep Extract Vol: 5 mL

Results of **AP-9**

Client Sample ID: **AP-9**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579017
Lab Project ID: 1163579

Collection Date: 06/28/16 15:04
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):97.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.5	U	51.0	15.3	ug/Kg	1		07/22/16 20:37
Aroclor-1221	102	U	204	63.3	ug/Kg	1		07/22/16 20:37
Aroclor-1232	25.5	U	51.0	15.3	ug/Kg	1		07/22/16 20:37
Aroclor-1242	25.5	U	51.0	15.3	ug/Kg	1		07/22/16 20:37
Aroclor-1248	25.5	U	51.0	15.3	ug/Kg	1		07/22/16 20:37
Aroclor-1254	25.5	U	51.0	15.3	ug/Kg	1		07/22/16 20:37
Aroclor-1260	692		51.0	15.3	ug/Kg	1		07/22/16 20:37
Surrogates								
Decachlorobiphenyl (surr)	99		60-125		%	1		07/22/16 20:37

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/22/16 20:37
Container ID: 1163579017-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.564 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

J flagging is activated

Results of **AP-10**

Client Sample ID: **AP-10**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579018
Lab Project ID: 1163579

Collection Date: 06/28/16 15:05
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):97.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	127	U	253	76.0	ug/Kg	5		07/23/16 17:50
Aroclor-1221	505	U	1010	314	ug/Kg	5		07/23/16 17:50
Aroclor-1232	127	U	253	76.0	ug/Kg	5		07/23/16 17:50
Aroclor-1242	127	U	253	76.0	ug/Kg	5		07/23/16 17:50
Aroclor-1248	127	U	253	76.0	ug/Kg	5		07/23/16 17:50
Aroclor-1254	127	U	253	76.0	ug/Kg	5		07/23/16 17:50
Aroclor-1260	259		253	76.0	ug/Kg	5		07/23/16 17:50
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	5		07/23/16 17:50

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 17:50
Container ID: 1163579018-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.884 g
Prep Extract Vol: 5 mL

Results of **AP-11**

Client Sample ID: **AP-11**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579019
Lab Project ID: 1163579

Collection Date: 06/28/16 15:41
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):92.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26850	U	53700	16100	ug/Kg	1000		07/25/16 20:51
Aroclor-1221	107500	U	215000	66600	ug/Kg	1000		07/25/16 20:51
Aroclor-1232	26850	U	53700	16100	ug/Kg	1000		07/25/16 20:51
Aroclor-1242	26850	U	53700	16100	ug/Kg	1000		07/25/16 20:51
Aroclor-1248	26850	U	53700	16100	ug/Kg	1000		07/25/16 20:51
Aroclor-1254	26850	U	53700	16100	ug/Kg	1000		07/25/16 20:51
Aroclor-1260	1370000		53700	16100	ug/Kg	1000		07/25/16 20:51
Surrogates								
Decachlorobiphenyl (surr)	0	*	60-125		%	1000		07/25/16 20:51

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 20:51
Container ID: 1163579019-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.721 g
Prep Extract Vol: 5 mL

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Results of **AP-12**

Client Sample ID: **AP-12**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579020
Lab Project ID: 1163579

Collection Date: 06/28/16 15:43
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	2635	U	5270	1580	ug/Kg	100		07/23/16 18:03
Aroclor-1221	10550	U	21100	6530	ug/Kg	100		07/23/16 18:03
Aroclor-1232	2635	U	5270	1580	ug/Kg	100		07/23/16 18:03
Aroclor-1242	2635	U	5270	1580	ug/Kg	100		07/23/16 18:03
Aroclor-1248	2635	U	5270	1580	ug/Kg	100		07/23/16 18:03
Aroclor-1254	2635	U	5270	1580	ug/Kg	100		07/23/16 18:03
Aroclor-1260	430000		26300	7900	ug/Kg	500		07/25/16 19:02
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	100		07/23/16 18:03

Batch Information

Analytical Batch: XGC9399
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/23/16 18:03
Container ID: 1163579020-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.584 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9401
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 19:02
Container ID: 1163579020-A

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 07/07/16 16:37
Prep Initial Wt./Vol.: 22.584 g
Prep Extract Vol: 5 mL

Results of **AP-12**

Client Sample ID: **AP-12**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579020
Lab Project ID: 1163579

Collection Date: 06/28/16 15:43
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.5
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	246		105	32.5	mg/Kg	1		07/12/16 12:10
Surrogates								
5a Androstane (surr)	81.3		50-150		%	1		07/12/16 12:10

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 12:10
Container ID: 1163579020-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.282 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	822		105	32.5	mg/Kg	1		07/12/16 12:10
Surrogates								
n-Triacontane-d62 (surr)	79.2		50-150		%	1		07/12/16 12:10

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 12:10
Container ID: 1163579020-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.282 g
Prep Extract Vol: 5 mL

Results of **AP-13**

Client Sample ID: **AP-13**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579021
Lab Project ID: 1163579

Collection Date: 06/28/16 15:55
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	52.0	U	104	31.3	ug/Kg	2		07/19/16 12:55
Aroclor-1221	209	U	417	129	ug/Kg	2		07/19/16 12:55
Aroclor-1232	52.0	U	104	31.3	ug/Kg	2		07/19/16 12:55
Aroclor-1242	52.0	U	104	31.3	ug/Kg	2		07/19/16 12:55
Aroclor-1248	52.0	U	104	31.3	ug/Kg	2		07/19/16 12:55
Aroclor-1254	52.0	U	104	31.3	ug/Kg	2		07/19/16 12:55
Aroclor-1260	3820		104	31.3	ug/Kg	2		07/19/16 12:55
Surrogates								
Decachlorobiphenyl (surr)	96		60-125		%	2		07/19/16 12:55

Batch Information

Analytical Batch: XGC9385
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 12:55
Container ID: 1163579021-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.759 g
Prep Extract Vol: 5 mL

Results of **AP-14**

Client Sample ID: **AP-14**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579022
Lab Project ID: 1163579

Collection Date: 06/28/16 15:58
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):92.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	134	U	267	80.0	ug/Kg	5		07/19/16 20:22
Aroclor-1221	535	U	1070	331	ug/Kg	5		07/19/16 20:22
Aroclor-1232	134	U	267	80.0	ug/Kg	5		07/19/16 20:22
Aroclor-1242	134	U	267	80.0	ug/Kg	5		07/19/16 20:22
Aroclor-1248	134	U	267	80.0	ug/Kg	5		07/19/16 20:22
Aroclor-1254	134	U	267	80.0	ug/Kg	5		07/19/16 20:22
Aroclor-1260	3030		267	80.0	ug/Kg	5		07/19/16 20:22
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	5		07/19/16 20:22

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 20:22
Container ID: 1163579022-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.719 g
Prep Extract Vol: 5 mL

Results of **AP-15**

Client Sample ID: **AP-15**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579023
Lab Project ID: 1163579

Collection Date: 06/29/16 11:15
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	2600	U	5200	1560	ug/Kg	100		07/19/16 20:32
Aroclor-1221	10400	U	20800	6440	ug/Kg	100		07/19/16 20:32
Aroclor-1232	2600	U	5200	1560	ug/Kg	100		07/19/16 20:32
Aroclor-1242	2600	U	5200	1560	ug/Kg	100		07/19/16 20:32
Aroclor-1248	2600	U	5200	1560	ug/Kg	100		07/19/16 20:32
Aroclor-1254	2600	U	5200	1560	ug/Kg	100		07/19/16 20:32
Aroclor-1260	109000		5200	1560	ug/Kg	100		07/19/16 20:32
Surrogates								
Decachlorobiphenyl (surr)	200	*	60-125		%	100		07/19/16 20:32

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 20:32
Container ID: 1163579023-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.623 g
Prep Extract Vol: 5 mL

Results of **AP-16**

Client Sample ID: **AP-16**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579024
Lab Project ID: 1163579

Collection Date: 06/29/16 11:19
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	13050	U	26100	7820	ug/Kg	500		07/19/16 20:43
Aroclor-1221	52000	U	104000	32300	ug/Kg	500		07/19/16 20:43
Aroclor-1232	13050	U	26100	7820	ug/Kg	500		07/19/16 20:43
Aroclor-1242	13050	U	26100	7820	ug/Kg	500		07/19/16 20:43
Aroclor-1248	13050	U	26100	7820	ug/Kg	500		07/19/16 20:43
Aroclor-1254	13050	U	26100	7820	ug/Kg	500		07/19/16 20:43
Aroclor-1260	465000		26100	7820	ug/Kg	500		07/19/16 20:43
Surrogates								
Decachlorobiphenyl (surr)	500	*	60-125		%	500		07/19/16 20:43

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 20:43
Container ID: 1163579024-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.653 g
Prep Extract Vol: 5 mL

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Results of **AP-17**

Client Sample ID: **AP-17**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579025
Lab Project ID: 1163579

Collection Date: 06/29/16 11:20
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):90.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	136	U	272	81.7	ug/Kg	5		07/19/16 20:53
Aroclor-1221	545	U	1090	338	ug/Kg	5		07/19/16 20:53
Aroclor-1232	136	U	272	81.7	ug/Kg	5		07/19/16 20:53
Aroclor-1242	136	U	272	81.7	ug/Kg	5		07/19/16 20:53
Aroclor-1248	136	U	272	81.7	ug/Kg	5		07/19/16 20:53
Aroclor-1254	136	U	272	81.7	ug/Kg	5		07/19/16 20:53
Aroclor-1260	2370		272	81.7	ug/Kg	5		07/19/16 20:53
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	5		07/19/16 20:53

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 20:53
Container ID: 1163579025-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.726 g
Prep Extract Vol: 5 mL

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Results of **AP-18**

Client Sample ID: **AP-18**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579026
Lab Project ID: 1163579

Collection Date: 06/29/16 11:25
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	264	U	528	158	ug/Kg	10		07/19/16 21:14
Aroclor-1221	1055	U	2110	655	ug/Kg	10		07/19/16 21:14
Aroclor-1232	264	U	528	158	ug/Kg	10		07/19/16 21:14
Aroclor-1242	264	U	528	158	ug/Kg	10		07/19/16 21:14
Aroclor-1248	264	U	528	158	ug/Kg	10		07/19/16 21:14
Aroclor-1254	264	U	528	158	ug/Kg	10		07/19/16 21:14
Aroclor-1260	12300		528	158	ug/Kg	10		07/19/16 21:14
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	10		07/19/16 21:14

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 21:14
Container ID: 1163579026-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.615 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

J flagging is activated

Results of **AP-19**

Client Sample ID: **AP-19**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579029
Lab Project ID: 1163579

Collection Date: 06/29/16 11:28
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	2585	U	5170	1550	ug/Kg	100		07/19/16 21:44
Aroclor-1221	10350	U	20700	6420	ug/Kg	100		07/19/16 21:44
Aroclor-1232	2585	U	5170	1550	ug/Kg	100		07/19/16 21:44
Aroclor-1242	2585	U	5170	1550	ug/Kg	100		07/19/16 21:44
Aroclor-1248	2585	U	5170	1550	ug/Kg	100		07/19/16 21:44
Aroclor-1254	2585	U	5170	1550	ug/Kg	100		07/19/16 21:44
Aroclor-1260	118000		5170	1550	ug/Kg	100		07/19/16 21:44
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	100		07/19/16 21:44

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 21:44
Container ID: 1163579029-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.693 g
Prep Extract Vol: 5 mL

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Results of **AP-20**

Client Sample ID: **AP-20**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579030
Lab Project ID: 1163579

Collection Date: 06/29/16 11:29
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	129	U	257	77.1	ug/Kg	5		07/19/16 14:48
Aroclor-1221	515	U	1030	319	ug/Kg	5		07/19/16 14:48
Aroclor-1232	129	U	257	77.1	ug/Kg	5		07/19/16 14:48
Aroclor-1242	129	U	257	77.1	ug/Kg	5		07/19/16 14:48
Aroclor-1248	129	U	257	77.1	ug/Kg	5		07/19/16 14:48
Aroclor-1254	129	U	257	77.1	ug/Kg	5		07/19/16 14:48
Aroclor-1260	11000		257	77.1	ug/Kg	5		07/19/16 14:48
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	5		07/19/16 14:48

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 14:48
Container ID: 1163579030-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.659 g
Prep Extract Vol: 5 mL

Results of **AP-21**

Client Sample ID: **AP-21**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579031
Lab Project ID: 1163579

Collection Date: 06/29/16 11:23
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 14:58
Aroclor-1221	106	U	211	65.4	ug/Kg	1		07/19/16 14:58
Aroclor-1232	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 14:58
Aroclor-1242	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 14:58
Aroclor-1248	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 14:58
Aroclor-1254	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 14:58
Aroclor-1260	68.0		52.8	15.8	ug/Kg	1		07/19/16 14:58
Surrogates								
Decachlorobiphenyl (surr)	105		60-125		%	1		07/19/16 14:58

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 14:58
Container ID: 1163579031-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.668 g
Prep Extract Vol: 5 mL

Results of **AP-22**

Client Sample ID: **AP-22**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579032
Lab Project ID: 1163579

Collection Date: 06/29/16 11:32
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 15:09
Aroclor-1221	105	U	209	64.8	ug/Kg	1		07/19/16 15:09
Aroclor-1232	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 15:09
Aroclor-1242	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 15:09
Aroclor-1248	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 15:09
Aroclor-1254	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 15:09
Aroclor-1260	272		52.2	15.7	ug/Kg	1		07/19/16 15:09
Surrogates								
Decachlorobiphenyl (surr)	96		60-125		%	1		07/19/16 15:09

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 15:09
Container ID: 1163579032-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.58 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

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Results of **AP-23**

Client Sample ID: **AP-23**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579033
Lab Project ID: 1163579

Collection Date: 06/29/16 11:33
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 15:19
Aroclor-1221	103	U	205	63.5	ug/Kg	1		07/19/16 15:19
Aroclor-1232	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 15:19
Aroclor-1242	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 15:19
Aroclor-1248	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 15:19
Aroclor-1254	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 15:19
Aroclor-1260	168		51.2	15.4	ug/Kg	1		07/19/16 15:19
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	1		07/19/16 15:19

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 15:19
Container ID: 1163579033-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.672 g
Prep Extract Vol: 5 mL

Results of **AP-23**

Client Sample ID: **AP-23**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579033
Lab Project ID: 1163579

Collection Date: 06/29/16 11:33
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.9
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	23.9		20.5	6.34	mg/Kg	1		07/12/16 12:20
Surrogates								
5a Androstane (surr)	96.8		50-150		%	1		07/12/16 12:20

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 12:20
Container ID: 1163579033-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.249 g
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	303		20.5	6.34	mg/Kg	1		07/12/16 12:20
Surrogates								
n-Triacontane-d62 (surr)	94.3		50-150		%	1		07/12/16 12:20

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 12:20
Container ID: 1163579033-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.249 g
Prep Extract Vol: 1 mL

Results of **AP-24**

Client Sample ID: **AP-24**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579034
Lab Project ID: 1163579

Collection Date: 06/29/16 11:37
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 15:29
Aroclor-1221	103	U	206	64.0	ug/Kg	1		07/19/16 15:29
Aroclor-1232	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 15:29
Aroclor-1242	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 15:29
Aroclor-1248	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 15:29
Aroclor-1254	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 15:29
Aroclor-1260	589		51.6	15.5	ug/Kg	1		07/19/16 15:29
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		07/19/16 15:29

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 15:29
Container ID: 1163579034-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.715 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

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Results of **AP-924**

Client Sample ID: **AP-924**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579035
Lab Project ID: 1163579

Collection Date: 06/29/16 11:37
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 22:05
Aroclor-1221	103	U	205	63.5	ug/Kg	1		07/19/16 22:05
Aroclor-1232	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 22:05
Aroclor-1242	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 22:05
Aroclor-1248	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 22:05
Aroclor-1254	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 22:05
Aroclor-1260	646		51.2	15.4	ug/Kg	1		07/19/16 22:05
Surrogates								
Decachlorobiphenyl (surr)	105		60-125		%	1		07/19/16 22:05

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 22:05
Container ID: 1163579035-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.885 g
Prep Extract Vol: 5 mL

Results of **AP-25**

Client Sample ID: **AP-25**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579036
Lab Project ID: 1163579

Collection Date: 06/29/16 14:17
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.3	15.7	ug/Kg	1		07/19/16 22:15
Aroclor-1221	105	U	209	64.8	ug/Kg	1		07/19/16 22:15
Aroclor-1232	26.1	U	52.3	15.7	ug/Kg	1		07/19/16 22:15
Aroclor-1242	26.1	U	52.3	15.7	ug/Kg	1		07/19/16 22:15
Aroclor-1248	26.1	U	52.3	15.7	ug/Kg	1		07/19/16 22:15
Aroclor-1254	26.1	U	52.3	15.7	ug/Kg	1		07/19/16 22:15
Aroclor-1260	46.5	J	52.3	15.7	ug/Kg	1		07/19/16 22:15
Surrogates								
Decachlorobiphenyl (surr)	117		60-125		%	1		07/19/16 22:15

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 22:15
Container ID: 1163579036-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.671 g
Prep Extract Vol: 5 mL

Results of **AP-26**

Client Sample ID: **AP-26**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579037
Lab Project ID: 1163579

Collection Date: 06/29/16 14:24
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:26
Aroclor-1221	105	U	210	65.0	ug/Kg	1		07/19/16 22:26
Aroclor-1232	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:26
Aroclor-1242	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:26
Aroclor-1248	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:26
Aroclor-1254	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:26
Aroclor-1260	67.6		52.4	15.7	ug/Kg	1		07/19/16 22:26
Surrogates								
Decachlorobiphenyl (surr)	106		60-125		%	1		07/19/16 22:26

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 22:26
Container ID: 1163579037-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.649 g
Prep Extract Vol: 5 mL

Results of **AP-27**

Client Sample ID: **AP-27**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579038
Lab Project ID: 1163579

Collection Date: 06/29/16 14:26
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:36
Aroclor-1221	105	U	210	65.0	ug/Kg	1		07/19/16 22:36
Aroclor-1232	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:36
Aroclor-1242	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:36
Aroclor-1248	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:36
Aroclor-1254	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 22:36
Aroclor-1260	389		52.4	15.7	ug/Kg	1		07/19/16 22:36
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	1		07/19/16 22:36

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 22:36
Container ID: 1163579038-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.89 g
Prep Extract Vol: 5 mL

Results of **AP-927**

Client Sample ID: **AP-927**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579039
Lab Project ID: 1163579

Collection Date: 06/29/16 14:26
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 22:46
Aroclor-1221	106	U	211	65.5	ug/Kg	1		07/19/16 22:46
Aroclor-1232	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 22:46
Aroclor-1242	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 22:46
Aroclor-1248	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 22:46
Aroclor-1254	26.4	U	52.8	15.8	ug/Kg	1		07/19/16 22:46
Aroclor-1260	321		52.8	15.8	ug/Kg	1		07/19/16 22:46
Surrogates								
Decachlorobiphenyl (surr)	89		60-125		%	1		07/19/16 22:46

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 22:46
Container ID: 1163579039-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.677 g
Prep Extract Vol: 5 mL

Results of **AP-28**

Client Sample ID: **AP-28**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579040
Lab Project ID: 1163579

Collection Date: 06/29/16 14:30
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	52.0	U	104	31.3	ug/Kg	2		07/19/16 23:07
Aroclor-1221	209	U	418	129	ug/Kg	2		07/19/16 23:07
Aroclor-1232	52.0	U	104	31.3	ug/Kg	2		07/19/16 23:07
Aroclor-1242	52.0	U	104	31.3	ug/Kg	2		07/19/16 23:07
Aroclor-1248	52.0	U	104	31.3	ug/Kg	2		07/19/16 23:07
Aroclor-1254	52.0	U	104	31.3	ug/Kg	2		07/19/16 23:07
Aroclor-1260	803		104	31.3	ug/Kg	2		07/19/16 23:07
Surrogates								
Decachlorobiphenyl (surr)	88		60-125		%	2		07/19/16 23:07

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:07
Container ID: 1163579040-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.66 g
Prep Extract Vol: 5 mL

Results of **AP-29**

Client Sample ID: **AP-29**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579041
Lab Project ID: 1163579

Collection Date: 06/29/16 14:33
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	2660	U	5320	1600	ug/Kg	100		07/19/16 23:17
Aroclor-1221	10650	U	21300	6600	ug/Kg	100		07/19/16 23:17
Aroclor-1232	2660	U	5320	1600	ug/Kg	100		07/19/16 23:17
Aroclor-1242	2660	U	5320	1600	ug/Kg	100		07/19/16 23:17
Aroclor-1248	2660	U	5320	1600	ug/Kg	100		07/19/16 23:17
Aroclor-1254	2660	U	5320	1600	ug/Kg	100		07/19/16 23:17
Aroclor-1260	182000		5320	1600	ug/Kg	100		07/19/16 23:17
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	100		07/19/16 23:17

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:17
Container ID: 1163579041-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.602 g
Prep Extract Vol: 5 mL

Results of **AP-30**

Client Sample ID: **AP-30**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579042
Lab Project ID: 1163579

Collection Date: 06/29/16 14:34
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):92.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	530	U	1060	318	ug/Kg	20		07/19/16 23:27
Aroclor-1221	2120	U	4240	1320	ug/Kg	20		07/19/16 23:27
Aroclor-1232	530	U	1060	318	ug/Kg	20		07/19/16 23:27
Aroclor-1242	530	U	1060	318	ug/Kg	20		07/19/16 23:27
Aroclor-1248	530	U	1060	318	ug/Kg	20		07/19/16 23:27
Aroclor-1254	530	U	1060	318	ug/Kg	20		07/19/16 23:27
Aroclor-1260	26500		1060	318	ug/Kg	20		07/19/16 23:27
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	20		07/19/16 23:27

Batch Information

Analytical Batch: XGC9387
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:27
Container ID: 1163579042-A

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 07/07/16 17:23
Prep Initial Wt./Vol.: 22.916 g
Prep Extract Vol: 5 mL

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Results of **AP-31**

Client Sample ID: **AP-31**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579043
Lab Project ID: 1163579

Collection Date: 06/29/16 14:38
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):90.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	27.4	U	54.7	16.4	ug/Kg	1		07/18/16 21:56
Aroclor-1221	110	U	219	67.9	ug/Kg	1		07/18/16 21:56
Aroclor-1232	27.4	U	54.7	16.4	ug/Kg	1		07/18/16 21:56
Aroclor-1242	27.4	U	54.7	16.4	ug/Kg	1		07/18/16 21:56
Aroclor-1248	27.4	U	54.7	16.4	ug/Kg	1		07/18/16 21:56
Aroclor-1254	27.4	U	54.7	16.4	ug/Kg	1		07/18/16 21:56
Aroclor-1260	210000		10900	3280	ug/Kg	200		07/19/16 14:08
Surrogates								
Decachlorobiphenyl (surr)	117		60-125		%	1		07/18/16 21:56

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 21:56
Container ID: 1163579043-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.697 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9388
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 14:08
Container ID: 1163579043-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.697 g
Prep Extract Vol: 5 mL

Results of **AP-33**

Client Sample ID: **AP-33**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579044
Lab Project ID: 1163579

Collection Date: 06/29/16 14:42
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.6	15.5	ug/Kg	1		07/18/16 22:09
Aroclor-1221	103	U	206	63.9	ug/Kg	1		07/18/16 22:09
Aroclor-1232	25.8	U	51.6	15.5	ug/Kg	1		07/18/16 22:09
Aroclor-1242	25.8	U	51.6	15.5	ug/Kg	1		07/18/16 22:09
Aroclor-1248	25.8	U	51.6	15.5	ug/Kg	1		07/18/16 22:09
Aroclor-1254	25.8	U	51.6	15.5	ug/Kg	1		07/18/16 22:09
Aroclor-1260	518		51.6	15.5	ug/Kg	1		07/18/16 22:09
Surrogates								
Decachlorobiphenyl (surr)	88		60-125		%	1		07/18/16 22:09

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 22:09
Container ID: 1163579044-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.563 g
Prep Extract Vol: 5 mL

Results of **AP-33**

Client Sample ID: **AP-33**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579044
Lab Project ID: 1163579

Collection Date: 06/29/16 14:42
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.7
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	8.50	J	20.6	6.38	mg/Kg	1		07/12/16 12:31
Surrogates								
5a Androstane (surr)	87.7		50-150		%	1		07/12/16 12:31

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 12:31
Container ID: 1163579044-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.122 g
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	57.7		20.6	6.38	mg/Kg	1		07/12/16 12:31
Surrogates								
n-Triacontane-d62 (surr)	83.1		50-150		%	1		07/12/16 12:31

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 12:31
Container ID: 1163579044-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.122 g
Prep Extract Vol: 1 mL

Results of **AP-32**

Client Sample ID: **AP-32**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579045
Lab Project ID: 1163579

Collection Date: 06/29/16 14:40
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:24
Aroclor-1221	105	U	209	64.8	ug/Kg	1		07/18/16 22:24
Aroclor-1232	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:24
Aroclor-1242	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:24
Aroclor-1248	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:24
Aroclor-1254	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:24
Aroclor-1260	89400		5220	1570	ug/Kg	100		07/19/16 14:22
Surrogates								
Decachlorobiphenyl (surr)	115		60-125		%	1		07/18/16 22:24

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 22:24
Container ID: 1163579045-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.56 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9388
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 14:22
Container ID: 1163579045-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.56 g
Prep Extract Vol: 5 mL

Results of **AP-34**

Client Sample ID: **AP-34**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579046
Lab Project ID: 1163579

Collection Date: 06/29/16 14:45
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:50
Aroclor-1221	105	U	209	64.8	ug/Kg	1		07/18/16 22:50
Aroclor-1232	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:50
Aroclor-1242	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:50
Aroclor-1248	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:50
Aroclor-1254	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 22:50
Aroclor-1260	69.6		52.2	15.7	ug/Kg	1		07/18/16 22:50
Surrogates								
Decachlorobiphenyl (surr)	91		60-125		%	1		07/18/16 22:50

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 22:50
Container ID: 1163579046-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.504 g
Prep Extract Vol: 5 mL

Results of **AP-35**

Client Sample ID: **AP-35**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579047
Lab Project ID: 1163579

Collection Date: 06/29/16 16:50
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:04
Aroclor-1221	105	U	210	65.1	ug/Kg	1		07/18/16 23:04
Aroclor-1232	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:04
Aroclor-1242	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:04
Aroclor-1248	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:04
Aroclor-1254	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:04
Aroclor-1260	418		52.5	15.7	ug/Kg	1		07/18/16 23:04
Surrogates								
Decachlorobiphenyl (surr)	87		60-125		%	1		07/18/16 23:04

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 23:04
Container ID: 1163579047-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.94 g
Prep Extract Vol: 5 mL

Results of **AP-36**

Client Sample ID: **AP-36**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579048
Lab Project ID: 1163579

Collection Date: 06/29/16 16:53
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.3
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 23:17
Aroclor-1221	105	U	209	64.7	ug/Kg	1		07/18/16 23:17
Aroclor-1232	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 23:17
Aroclor-1242	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 23:17
Aroclor-1248	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 23:17
Aroclor-1254	26.1	U	52.2	15.7	ug/Kg	1		07/18/16 23:17
Aroclor-1260	27.8	J	52.2	15.7	ug/Kg	1		07/18/16 23:17
Surrogates								
Decachlorobiphenyl (surr)	87		60-125		%	1		07/18/16 23:17

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 23:17
Container ID: 1163579048-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.862 g
Prep Extract Vol: 5 mL

Results of **AP-37**

Client Sample ID: **AP-37**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579049
Lab Project ID: 1163579

Collection Date: 06/29/16 16:54
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:31
Aroclor-1221	105	U	210	65.1	ug/Kg	1		07/18/16 23:31
Aroclor-1232	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:31
Aroclor-1242	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:31
Aroclor-1248	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:31
Aroclor-1254	26.3	U	52.5	15.7	ug/Kg	1		07/18/16 23:31
Aroclor-1260	18.7	J	52.5	15.7	ug/Kg	1		07/18/16 23:31
Surrogates								
Decachlorobiphenyl (surr)	84		60-125		%	1		07/18/16 23:31

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 23:31
Container ID: 1163579049-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.624 g
Prep Extract Vol: 5 mL

Results of **AP-38**

Client Sample ID: **AP-38**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579050
Lab Project ID: 1163579

Collection Date: 06/29/16 17:00
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.7	15.8	ug/Kg	1		07/18/16 23:44
Aroclor-1221	106	U	211	65.4	ug/Kg	1		07/18/16 23:44
Aroclor-1232	26.4	U	52.7	15.8	ug/Kg	1		07/18/16 23:44
Aroclor-1242	26.4	U	52.7	15.8	ug/Kg	1		07/18/16 23:44
Aroclor-1248	26.4	U	52.7	15.8	ug/Kg	1		07/18/16 23:44
Aroclor-1254	26.4	U	52.7	15.8	ug/Kg	1		07/18/16 23:44
Aroclor-1260	138		52.7	15.8	ug/Kg	1		07/18/16 23:44
Surrogates								
Decachlorobiphenyl (surr)	86		60-125		%	1		07/18/16 23:44

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/18/16 23:44
Container ID: 1163579050-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.672 g
Prep Extract Vol: 5 mL

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Results of **AP-39**

Client Sample ID: **AP-39**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579053
Lab Project ID: 1163579

Collection Date: 06/29/16 17:01
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.3
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.9	15.9	ug/Kg	1		07/19/16 00:51
Aroclor-1221	106	U	212	65.6	ug/Kg	1		07/19/16 00:51
Aroclor-1232	26.4	U	52.9	15.9	ug/Kg	1		07/19/16 00:51
Aroclor-1242	26.4	U	52.9	15.9	ug/Kg	1		07/19/16 00:51
Aroclor-1248	26.4	U	52.9	15.9	ug/Kg	1		07/19/16 00:51
Aroclor-1254	26.4	U	52.9	15.9	ug/Kg	1		07/19/16 00:51
Aroclor-1260	42.3	J	52.9	15.9	ug/Kg	1		07/19/16 00:51
Surrogates								
Decachlorobiphenyl (surr)	86		60-125		%	1		07/19/16 00:51

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 00:51
Container ID: 1163579053-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.777 g
Prep Extract Vol: 5 mL

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Results of **AP-40**

Client Sample ID: **AP-40**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579054
Lab Project ID: 1163579

Collection Date: 06/29/16 17:08
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:04
Aroclor-1221	105	U	210	65.2	ug/Kg	1		07/19/16 01:04
Aroclor-1232	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:04
Aroclor-1242	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:04
Aroclor-1248	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:04
Aroclor-1254	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:04
Aroclor-1260	32.7	J	52.6	15.8	ug/Kg	1		07/19/16 01:04
Surrogates								
Decachlorobiphenyl (surr)	86		60-125		%	1		07/19/16 01:04

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 01:04
Container ID: 1163579054-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.943 g
Prep Extract Vol: 5 mL

Results of **AP-41**

Client Sample ID: **AP-41**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579055
Lab Project ID: 1163579

Collection Date: 06/29/16 17:09
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 01:18
Aroclor-1221	105	U	209	64.9	ug/Kg	1		07/19/16 01:18
Aroclor-1232	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 01:18
Aroclor-1242	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 01:18
Aroclor-1248	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 01:18
Aroclor-1254	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 01:18
Aroclor-1260	46.5	J	52.4	15.7	ug/Kg	1		07/19/16 01:18
Surrogates								
Decachlorobiphenyl (surr)	84		60-125		%	1		07/19/16 01:18

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 01:18
Container ID: 1163579055-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.761 g
Prep Extract Vol: 5 mL

Results of **AP-41**

Client Sample ID: **AP-41**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579055
Lab Project ID: 1163579

Collection Date: 06/29/16 17:09
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.4
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	46.3		21.2	6.56	mg/Kg	1		07/12/16 12:41
Surrogates								
5a Androstane (surr)	85.6		50-150		%	1		07/12/16 12:41

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 12:41
Container ID: 1163579055-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.016 g
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	249		21.2	6.56	mg/Kg	1		07/12/16 12:41
Surrogates								
n-Triacontane-d62 (surr)	82.9		50-150		%	1		07/12/16 12:41

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 12:41
Container ID: 1163579055-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.016 g
Prep Extract Vol: 1 mL

Results of **AP-941**

Client Sample ID: **AP-941**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579056
Lab Project ID: 1163579

Collection Date: 06/29/16 17:09
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:44
Aroclor-1221	106	U	211	65.3	ug/Kg	1		07/19/16 01:44
Aroclor-1232	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:44
Aroclor-1242	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:44
Aroclor-1248	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:44
Aroclor-1254	26.3	U	52.6	15.8	ug/Kg	1		07/19/16 01:44
Aroclor-1260	42.1	J	52.6	15.8	ug/Kg	1		07/19/16 01:44
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	1		07/19/16 01:44

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 01:44
Container ID: 1163579056-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.6 g
Prep Extract Vol: 5 mL

Results of **AP-941**

Client Sample ID: **AP-941**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579056
Lab Project ID: 1163579

Collection Date: 06/29/16 17:09
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	45.2		21.0	6.51	mg/Kg	1		07/12/16 12:51
Surrogates								
5a Androstane (surr)	87.4		50-150		%	1		07/12/16 12:51

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 12:51
Container ID: 1163579056-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.236 g
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	260		21.0	6.51	mg/Kg	1		07/12/16 12:51
Surrogates								
n-Triacontane-d62 (surr)	87.9		50-150		%	1		07/12/16 12:51

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 12:51
Container ID: 1163579056-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.236 g
Prep Extract Vol: 1 mL

Results of **AP-42**

Client Sample ID: **AP-42**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579057
Lab Project ID: 1163579

Collection Date: 06/29/16 17:12
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.1	15.6	ug/Kg	1		07/19/16 01:57
Aroclor-1221	104	U	208	64.6	ug/Kg	1		07/19/16 01:57
Aroclor-1232	26.1	U	52.1	15.6	ug/Kg	1		07/19/16 01:57
Aroclor-1242	26.1	U	52.1	15.6	ug/Kg	1		07/19/16 01:57
Aroclor-1248	26.1	U	52.1	15.6	ug/Kg	1		07/19/16 01:57
Aroclor-1254	26.1	U	52.1	15.6	ug/Kg	1		07/19/16 01:57
Aroclor-1260	41.7	J	52.1	15.6	ug/Kg	1		07/19/16 01:57
Surrogates								
Decachlorobiphenyl (surr)	81		60-125		%	1		07/19/16 01:57

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 01:57
Container ID: 1163579057-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.95 g
Prep Extract Vol: 5 mL

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Results of **AP-43**

Client Sample ID: **AP-43**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579058
Lab Project ID: 1163579

Collection Date: 06/29/16 17:13
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.5	15.8	ug/Kg	1		07/19/16 02:11
Aroclor-1221	105	U	210	65.1	ug/Kg	1		07/19/16 02:11
Aroclor-1232	26.3	U	52.5	15.8	ug/Kg	1		07/19/16 02:11
Aroclor-1242	26.3	U	52.5	15.8	ug/Kg	1		07/19/16 02:11
Aroclor-1248	26.3	U	52.5	15.8	ug/Kg	1		07/19/16 02:11
Aroclor-1254	26.3	U	52.5	15.8	ug/Kg	1		07/19/16 02:11
Aroclor-1260	56.0		52.5	15.8	ug/Kg	1		07/19/16 02:11
Surrogates								
Decachlorobiphenyl (surr)	79		60-125		%	1		07/19/16 02:11

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 02:11
Container ID: 1163579058-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.758 g
Prep Extract Vol: 5 mL

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Results of **AP-44**

Client Sample ID: **AP-44**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579059
Lab Project ID: 1163579

Collection Date: 06/29/16 17:16
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 02:24
Aroclor-1221	105	U	209	64.8	ug/Kg	1		07/19/16 02:24
Aroclor-1232	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 02:24
Aroclor-1242	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 02:24
Aroclor-1248	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 02:24
Aroclor-1254	26.1	U	52.2	15.7	ug/Kg	1		07/19/16 02:24
Aroclor-1260	44.1	J	52.2	15.7	ug/Kg	1		07/19/16 02:24
Surrogates								
Decachlorobiphenyl (surr)	81		60-125		%	1		07/19/16 02:24

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 02:24
Container ID: 1163579059-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.915 g
Prep Extract Vol: 5 mL

Results of **AP-45**

Client Sample ID: **AP-45**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579060
Lab Project ID: 1163579

Collection Date: 06/30/16 11:11
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.2	15.6	ug/Kg	1		07/19/16 02:37
Aroclor-1221	105	U	209	64.7	ug/Kg	1		07/19/16 02:37
Aroclor-1232	26.1	U	52.2	15.6	ug/Kg	1		07/19/16 02:37
Aroclor-1242	26.1	U	52.2	15.6	ug/Kg	1		07/19/16 02:37
Aroclor-1248	26.1	U	52.2	15.6	ug/Kg	1		07/19/16 02:37
Aroclor-1254	26.1	U	52.2	15.6	ug/Kg	1		07/19/16 02:37
Aroclor-1260	27.8	J	52.2	15.6	ug/Kg	1		07/19/16 02:37
Surrogates								
Decachlorobiphenyl (surr)	81		60-125		%	1		07/19/16 02:37

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 02:37
Container ID: 1163579060-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.673 g
Prep Extract Vol: 5 mL

Print Date: 07/26/2016 4:14:35PM

J flagging is activated

Results of **AP-46**

Client Sample ID: **AP-46**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579061
Lab Project ID: 1163579

Collection Date: 06/30/16 11:17
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.9	U	51.9	15.6	ug/Kg	1		07/19/16 03:17
Aroclor-1221	104	U	208	64.4	ug/Kg	1		07/19/16 03:17
Aroclor-1232	25.9	U	51.9	15.6	ug/Kg	1		07/19/16 03:17
Aroclor-1242	25.9	U	51.9	15.6	ug/Kg	1		07/19/16 03:17
Aroclor-1248	25.9	U	51.9	15.6	ug/Kg	1		07/19/16 03:17
Aroclor-1254	25.9	U	51.9	15.6	ug/Kg	1		07/19/16 03:17
Aroclor-1260	208		51.9	15.6	ug/Kg	1		07/19/16 03:17
Surrogates								
Decachlorobiphenyl (surr)	79		60-125		%	1		07/19/16 03:17

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 03:17
Container ID: 1163579061-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.643 g
Prep Extract Vol: 5 mL

Results of **AP-47**

Client Sample ID: **AP-47**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579062
Lab Project ID: 1163579

Collection Date: 06/30/16 11:23
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.7	15.8	ug/Kg	1		07/19/16 03:30
Aroclor-1221	106	U	211	65.3	ug/Kg	1		07/19/16 03:30
Aroclor-1232	26.4	U	52.7	15.8	ug/Kg	1		07/19/16 03:30
Aroclor-1242	26.4	U	52.7	15.8	ug/Kg	1		07/19/16 03:30
Aroclor-1248	26.4	U	52.7	15.8	ug/Kg	1		07/19/16 03:30
Aroclor-1254	26.4	U	52.7	15.8	ug/Kg	1		07/19/16 03:30
Aroclor-1260	536		52.7	15.8	ug/Kg	1		07/19/16 03:30
Surrogates								
Decachlorobiphenyl (surr)	83		60-125		%	1		07/19/16 03:30

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 03:30
Container ID: 1163579062-A

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 07/07/16 20:41
Prep Initial Wt./Vol.: 22.736 g
Prep Extract Vol: 5 mL

Results of **AP-48**

Client Sample ID: **AP-48**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579063
Lab Project ID: 1163579

Collection Date: 06/30/16 11:28
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):96.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 20:12
Aroclor-1221	103	U	206	64.0	ug/Kg	1		07/19/16 20:12
Aroclor-1232	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 20:12
Aroclor-1242	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 20:12
Aroclor-1248	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 20:12
Aroclor-1254	25.8	U	51.6	15.5	ug/Kg	1		07/19/16 20:12
Aroclor-1260	89.5		51.6	15.5	ug/Kg	1		07/19/16 20:12
Surrogates								
Decachlorobiphenyl (surr)	84		60-125		%	1		07/19/16 20:12

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 20:12
Container ID: 1163579063-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.714 g
Prep Extract Vol: 5 mL

Results of **AP-49**

Client Sample ID: **AP-49**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579066
Lab Project ID: 1163579

Collection Date: 06/30/16 11:38
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.6	U	51.3	15.4	ug/Kg	1		07/19/16 23:18
Aroclor-1221	103	U	205	63.6	ug/Kg	1		07/19/16 23:18
Aroclor-1232	25.6	U	51.3	15.4	ug/Kg	1		07/19/16 23:18
Aroclor-1242	25.6	U	51.3	15.4	ug/Kg	1		07/19/16 23:18
Aroclor-1248	25.6	U	51.3	15.4	ug/Kg	1		07/19/16 23:18
Aroclor-1254	25.6	U	51.3	15.4	ug/Kg	1		07/19/16 23:18
Aroclor-1260	52.4		51.3	15.4	ug/Kg	1		07/19/16 23:18
Surrogates								
Decachlorobiphenyl (surr)	85		60-125		%	1		07/19/16 23:18

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:18
Container ID: 1163579066-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.861 g
Prep Extract Vol: 5 mL

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Results of **AP-49**

Client Sample ID: **AP-49**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579066
Lab Project ID: 1163579

Collection Date: 06/30/16 11:38
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	65.9	J	104	32.1	mg/Kg	1		07/12/16 13:01
Surrogates								
5a Androstane (surr)	94.9		50-150		%	1		07/12/16 13:01

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 07/12/16 13:01
Container ID: 1163579066-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.191 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	457		104	32.1	mg/Kg	1		07/12/16 13:01
Surrogates								
n-Triacontane-d62 (surr)	96		50-150		%	1		07/12/16 13:01

Batch Information

Analytical Batch: XFC12523
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 07/12/16 13:01
Container ID: 1163579066-A

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 07/08/16 08:21
Prep Initial Wt./Vol.: 30.191 g
Prep Extract Vol: 5 mL

Results of **AP-949**

Client Sample ID: **AP-949**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579067
Lab Project ID: 1163579

Collection Date: 06/30/16 11:38
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 23:32
Aroclor-1221	103	U	205	63.5	ug/Kg	1		07/19/16 23:32
Aroclor-1232	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 23:32
Aroclor-1242	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 23:32
Aroclor-1248	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 23:32
Aroclor-1254	25.6	U	51.2	15.4	ug/Kg	1		07/19/16 23:32
Aroclor-1260	54.7		51.2	15.4	ug/Kg	1		07/19/16 23:32
Surrogates								
Decachlorobiphenyl (surr)	70		60-125		%	1		07/19/16 23:32

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:32
Container ID: 1163579067-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.885 g
Prep Extract Vol: 5 mL

Results of **AP-50**

Client Sample ID: **AP-50**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579068
Lab Project ID: 1163579

Collection Date: 06/30/16 11:40
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 23:46
Aroclor-1221	105	U	209	64.9	ug/Kg	1		07/19/16 23:46
Aroclor-1232	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 23:46
Aroclor-1242	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 23:46
Aroclor-1248	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 23:46
Aroclor-1254	26.2	U	52.4	15.7	ug/Kg	1		07/19/16 23:46
Aroclor-1260	48.9	J	52.4	15.7	ug/Kg	1		07/19/16 23:46
Surrogates								
Decachlorobiphenyl (surr)	69		60-125		%	1		07/19/16 23:46

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/19/16 23:46
Container ID: 1163579068-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.718 g
Prep Extract Vol: 5 mL

Results of **AP-51**

Client Sample ID: **AP-51**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579069
Lab Project ID: 1163579

Collection Date: 06/30/16 11:48
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):94.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	520	U	1040	313	ug/Kg	20		07/20/16 00:15
Aroclor-1221	2090	U	4180	1300	ug/Kg	20		07/20/16 00:15
Aroclor-1232	520	U	1040	313	ug/Kg	20		07/20/16 00:15
Aroclor-1242	520	U	1040	313	ug/Kg	20		07/20/16 00:15
Aroclor-1248	520	U	1040	313	ug/Kg	20		07/20/16 00:15
Aroclor-1254	520	U	1040	313	ug/Kg	20		07/20/16 00:15
Aroclor-1260	15600		1040	313	ug/Kg	20		07/20/16 00:15
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	20		07/20/16 00:15

Batch Information

Analytical Batch: XGC9390
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/20/16 00:15
Container ID: 1163579069-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.898 g
Prep Extract Vol: 5 mL

Results of **AP-52**

Client Sample ID: **AP-52**
Client Project ID: **105.00528.11001 Task 360 MLP**
Lab Sample ID: 1163579070
Lab Project ID: 1163579

Collection Date: 06/30/16 11:46
Received Date: 06/30/16 14:47
Matrix: Soil/Solid (dry weight)
Solids (%):93.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	2670	U	5340	1600	ug/Kg	100		07/20/16 00:15
Aroclor-1221	10700	U	21400	6620	ug/Kg	100		07/20/16 00:15
Aroclor-1232	2670	U	5340	1600	ug/Kg	100		07/20/16 00:15
Aroclor-1242	2670	U	5340	1600	ug/Kg	100		07/20/16 00:15
Aroclor-1248	2670	U	5340	1600	ug/Kg	100		07/20/16 00:15
Aroclor-1254	2670	U	5340	1600	ug/Kg	100		07/20/16 00:15
Aroclor-1260	746000		107000	32100	ug/Kg	2000		07/25/16 14:23
Surrogates								
Decachlorobiphenyl (surr)	100		60-125		%	100		07/20/16 00:15

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/20/16 00:15
Container ID: 1163579070-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.65 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9400
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 07/25/16 14:23
Container ID: 1163579070-A

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 07/07/16 22:12
Prep Initial Wt./Vol.: 22.65 g
Prep Extract Vol: 5 mL

Method Blank

Blank ID: MB for HBN 1738547 [SPT/9939]
Blank Lab ID: 1335167

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579001, 1163579002, 1163579003, 1163579004, 1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011, 1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018, 1163579019, 1163579020, 1163579021, 1163579022, 1163579023, 1163579024, 1163579025, 1163579026, 1163579029,

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100			%

Batch Information

Analytical Batch: SPT9939
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA
Analytical Date/Time: 7/7/2016 6:57:00PM

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Duplicate Sample Summary

Original Sample ID: 1163579004
Duplicate Sample ID: 1335168

Analysis Date: 07/07/2016 18:57
Matrix: Soil/Solid (dry weight)

QC for Samples:

1163579001, 1163579002, 1163579003, 1163579004, 1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	94.7	95.1	%	0.42	(< 15)

Batch Information

Analytical Batch: SPT9939
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 07/26/2016 4:14:43PM

Duplicate Sample Summary

Original Sample ID: 1163579011
Duplicate Sample ID: 1335169

Analysis Date: 07/07/2016 18:57
Matrix: Soil/Solid (dry weight)

QC for Samples:

1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011, 1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	96.5	96.5	%	0.01	(< 15)

Batch Information

Analytical Batch: SPT9939
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 07/26/2016 4:14:43PM

Duplicate Sample Summary

Original Sample ID: 1163579018
Duplicate Sample ID: 1335170

Analysis Date: 07/07/2016 18:57
Matrix: Soil/Solid (dry weight)

QC for Samples:

1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018, 1163579019, 1163579020, 1163579021, 1163579022, 1163579023, 1163579024, 1163579025, 1163579026, 1163579029,

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	97.0	97.0	%	0.02	(< 15)

Batch Information

Analytical Batch: SPT9939
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 07/26/2016 4:14:43PM

Duplicate Sample Summary

Original Sample ID: 1163634012
Duplicate Sample ID: 1335171

Analysis Date: 07/07/2016 18:57
Matrix: Soil/Solid (dry weight)

QC for Samples:

1163579019, 1163579020, 1163579021, 1163579022, 1163579023, 1163579024, 1163579025, 1163579026, 1163579029, 1163579030, 1163579031, 1163579032, 1163579033, 1163579034, 1163579035, 1163579036,

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	96.3	96.2	%	0.15	(< 15)

Batch Information

Analytical Batch: SPT9939
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 07/26/2016 4:14:43PM

Method Blank

Blank ID: MB for HBN 1738524 [XXX/35739]
Blank Lab ID: 1335092

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579001, 1163579002, 1163579003, 1163579004, 1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011, 1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018, 1163579019, 1163579020

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	96	60-125		%

Batch Information

Analytical Batch: XGC9396
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 7/22/2016 5:45:00PM

Prep Batch: XXX35739
Prep Method: SW3550C
Prep Date/Time: 7/7/2016 4:37:23PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35739]
Blank Spike Lab ID: 1335093
Date Analyzed: 07/22/2016 17:59

Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579001, 1163579002, 1163579003, 1163579004, 1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011, 1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018, 1163579019, 1163579020

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	207	93	(47-134)
Aroclor-1260	222	198	89	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	96	96	(60-125)

Batch Information

Analytical Batch: **XGC9396**
Analytical Method: **SW8082A**
Instrument: **HP 6890 Series II ECD SV L R**
Analyst: **S.G**

Prep Batch: **XXX35739**
Prep Method: **SW3550C**
Prep Date/Time: **07/07/2016 16:37**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1163579005
MS Sample ID: 1335094 MS
MSD Sample ID: 1335095 MSD

Analysis Date: 07/25/2016 19:57
Analysis Date: 07/25/2016 20:24
Analysis Date: 07/25/2016 20:38
Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579001, 1163579002, 1163579003, 1163579004, 1163579005, 1163579006, 1163579007, 1163579008, 1163579009, 1163579010, 1163579011, 1163579012, 1163579013, 1163579014, 1163579015, 1163579016, 1163579017, 1163579018, 1163579019, 1163579020

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	26.0U	231	300	130	233	317	136 *	47-134	5.26	(< 30)
Aroclor-1260	34.7J	231	210	76	233	214	77	53-140	1.84	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		231	227	98	233	214	92	60-125	5.57	

Batch Information

Analytical Batch: XGC9401
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 7/25/2016 8:24:00PM

Prep Batch: XXX35739
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 7/7/2016 4:37:23PM
Prep Initial Wt./Vol.: 22.70g
Prep Extract Vol: 5.00mL

Print Date: 07/26/2016 4:14:48PM

Method Blank

Blank ID: MB for HBN 1738525 [XXX/35740]
Blank Lab ID: 1335096

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579021, 1163579022, 1163579023, 1163579024, 1163579025, 1163579026, 1163579029, 1163579030, 1163579031, 1163579032, 1163579033, 1163579034, 1163579035, 1163579036, 1163579037, 1163579038, 1163579039, 1163579040, 1163579041, 1163579042

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	98	60-125		%

Batch Information

Analytical Batch: XGC9384
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: S.G
Analytical Date/Time: 7/19/2016 12:24:00PM

Prep Batch: XXX35740
Prep Method: SW3550C
Prep Date/Time: 7/7/2016 5:23:54PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35740]
Blank Spike Lab ID: 1335097
Date Analyzed: 07/19/2016 12:34

Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579021, 1163579022, 1163579023, 1163579024, 1163579025, 1163579026, 1163579029, 1163579030, 1163579031, 1163579032, 1163579033, 1163579034, 1163579035, 1163579036, 1163579037, 1163579038, 1163579039, 1163579040, 1163579041, 1163579042

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	147	66	(47-134)
Aroclor-1260	222	173	78	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	93	93	(60-125)

Batch Information

Analytical Batch: **XGC9384**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW F**
Analyst: **S.G**

Prep Batch: **XXX35740**
Prep Method: **SW3550C**
Prep Date/Time: **07/07/2016 17:23**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Billable Matrix Spike Summary

Original Sample ID: 1163579026
MS Sample ID: 1163579027 BMS
MSD Sample ID: 1163579028 BMSD

Analysis Date: 07/19/2016 21:14
Analysis Date: 07/19/2016 21:24
Analysis Date: 07/19/2016 21:34
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	264U	235	375J	160 *	234	351J	150 *	47-134	6.57	(< 30)
Aroclor-1260	12300	235	11783	-199 *	234	11890	-186 *	53-140	0.27	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		235	235	100	234	234	100	60-125	0.12	

Batch Information

Analytical Batch: XGC9386
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW R
Analyst: S.G
Analytical Date/Time: 7/19/2016 9:24:00PM

Prep Batch: XXX35740
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 7/7/2016 5:23:54PM
Prep Initial Wt./Vol.: 22.66g
Prep Extract Vol: 5.00mL

Print Date: 07/26/2016 4:14:54PM

Method Blank

Blank ID: MB for HBN 1738530 [XXX/35741]
Blank Lab ID: 1335116

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579043, 1163579044, 1163579045, 1163579046, 1163579047, 1163579048, 1163579049, 1163579050, 1163579053, 1163579054, 1163579055, 1163579056, 1163579057, 1163579058, 1163579059, 1163579060, 1163579061, 1163579062

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	92	60-125		%

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 7/18/2016 9:27:00PM

Prep Batch: XXX35741
Prep Method: SW3550C
Prep Date/Time: 7/7/2016 8:41:05PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35741]
Blank Spike Lab ID: 1335117
Date Analyzed: 07/18/2016 21:42

Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579043, 1163579044, 1163579045, 1163579046, 1163579047, 1163579048, 1163579049, 1163579050, 1163579053, 1163579054, 1163579055, 1163579056, 1163579057, 1163579058, 1163579059, 1163579060, 1163579061, 1163579062

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	153	69	(47-134)
Aroclor-1260	222	189	85	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	90	90	(60-125)

Batch Information

Analytical Batch: **XGC9383**
Analytical Method: **SW8082A**
Instrument: **HP 6890 Series II ECD SV L R**
Analyst: **S.G**

Prep Batch: **XXX35741**
Prep Method: **SW3550C**
Prep Date/Time: **07/07/2016 20:41**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Billable Matrix Spike Summary

Original Sample ID: 1163579050
MS Sample ID: 1163579051 BMS
MSD Sample ID: 1163579052 BMSD

Analysis Date: 07/18/2016 23:44
Analysis Date: 07/19/2016 0:24
Analysis Date: 07/19/2016 0:37
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	26.4U	236	274	116	235	256	109	47-134	6.52	(< 30)
Aroclor-1260	138	236	317	75	235	304	70	53-140	4.10	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		236	203	86	235	193	82	60-125	5.06	

Batch Information

Analytical Batch: XGC9383
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 7/19/2016 12:24:00AM

Prep Batch: XXX35741
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 7/7/2016 8:41:05PM
Prep Initial Wt./Vol.: 22.51g
Prep Extract Vol: 5.00mL

Print Date: 07/26/2016 4:14:59PM

Method Blank

Blank ID: MB for HBN 1738532 [XXX/35742]
Blank Lab ID: 1335125

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579063, 1163579066, 1163579067, 1163579068, 1163579069, 1163579070

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	95	60-125		%

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV H F
Analyst: S.G
Analytical Date/Time: 7/19/2016 7:45:00PM

Prep Batch: XXX35742
Prep Method: SW3550C
Prep Date/Time: 7/7/2016 10:12:01PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35742]
Blank Spike Lab ID: 1335126
Date Analyzed: 07/19/2016 19:58

Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579063, 1163579066, 1163579067, 1163579068, 1163579069, 1163579070

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	213	96	(47-134)
Aroclor-1260	222	216	97	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	90	90	(60-125)

Batch Information

Analytical Batch: **XGC9389**
Analytical Method: **SW8082A**
Instrument: **HP 6890 Series II ECD SV H F**
Analyst: **S.G**

Prep Batch: **XXX35742**
Prep Method: **SW3550C**
Prep Date/Time: **07/07/2016 22:12**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Billable Matrix Spike Summary

Original Sample ID: 1163579063
MS Sample ID: 1163579064 BMS
MSD Sample ID: 1163579065 BMSD

Analysis Date: 07/19/2016 20:12
Analysis Date: 07/19/2016 20:26
Analysis Date: 07/19/2016 20:39
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	25.8U	228	345	151 *	228	442	194 *	47-134	24.70	(< 30)
Aroclor-1260	89.5	228	285	86	228	399	136	53-140	33.10 *	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		228	197	86	228	196	86	60-125	0.23	

Batch Information

Analytical Batch: XGC9389
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV H F
Analyst: S.G
Analytical Date/Time: 7/19/2016 8:26:00PM

Prep Batch: XXX35742
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 7/7/2016 10:12:01PM
Prep Initial Wt./Vol.: 22.81g
Prep Extract Vol: 5.00mL

Print Date: 07/26/2016 4:15:05PM

Method Blank

Blank ID: MB for HBN 1738546 [XXX/35745]
Blank Lab ID: 1335164

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579010, 1163579020, 1163579033, 1163579044, 1163579055, 1163579056, 1163579066

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
5a Androstane (surr)	85.4	60-120		%

Batch Information

Analytical Batch: XFC12532
Analytical Method: AK102
Instrument: Agilent 7890B R
Analyst: AEE
Analytical Date/Time: 7/14/2016 3:03:00AM

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 7/8/2016 8:21:01AM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35745]
Blank Spike Lab ID: 1335165
Date Analyzed: 07/14/2016 03:13

Spike Duplicate ID: LCSD for HBN 1163579 [XXX35745]
Spike Duplicate Lab ID: 1335166
Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579010, 1163579020, 1163579033, 1163579044, 1163579055, 1163579056, 1163579066

Results by **AK102**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	167	149	90	167	162	97	(75-125)	7.80	(< 20)
Surrogates									
5a Androstane (surr)	3.33	90.4	90	3.33	96.3	96	(60-120)	6.30	

Batch Information

Analytical Batch: **XFC12532**
Analytical Method: **AK102**
Instrument: **Agilent 7890B R**
Analyst: **AEE**

Prep Batch: **XXX35745**
Prep Method: **SW3550C**
Prep Date/Time: **07/08/2016 08:21**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

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Method Blank

Blank ID: MB for HBN 1738546 [XXX/35745]
Blank Lab ID: 1335164

Matrix: Soil/Solid (dry weight)

QC for Samples:
1163579010, 1163579020, 1163579033, 1163579044, 1163579055, 1163579056, 1163579066

Results by **AK103**

Parameter	Results	LOQ/CL	DL	Units
Residual Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
n-Triacontane-d62 (surr)	90.3	60-120		%

Batch Information

Analytical Batch: XFC12532
Analytical Method: AK103
Instrument: Agilent 7890B R
Analyst: AEE
Analytical Date/Time: 7/14/2016 3:03:00AM

Prep Batch: XXX35745
Prep Method: SW3550C
Prep Date/Time: 7/8/2016 8:21:01AM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163579 [XXX35745]
Blank Spike Lab ID: 1335165
Date Analyzed: 07/14/2016 03:13

Spike Duplicate ID: LCSD for HBN 1163579 [XXX35745]
Spike Duplicate Lab ID: 1335166
Matrix: Soil/Solid (dry weight)

QC for Samples: 1163579010, 1163579020, 1163579033, 1163579044, 1163579055, 1163579056, 1163579066

Results by **AK103**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Residual Range Organics	167	156	94	167	167	100	(60-120)	6.60	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	3.33	83.4	83	3.33	89.5	90	(60-120)	7.10	

Batch Information

Analytical Batch: **XFC12532**
Analytical Method: **AK103**
Instrument: **Agilent 7890B R**
Analyst: **AEE**

Prep Batch: **XXX35745**
Prep Method: **SW3550C**
Prep Date/Time: **07/08/2016 08:21**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL

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Section 1

CLIENT: SLR International

CONTACT: Bret Berslund PHONE NO: 907-222-1112

PROJECT NAME: MLP Plant 1 PROJECT/ PWSID/ PERMIT#: 105.00528.11001, Task 360

REPORTS TO: Bret Berslund E-MAIL: bberslund@slrconsulting.com

INVOICE TO: SLR QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	Section 3: # CONTAINERS	Section 3: Type C = COMP G = GRAB MI = Multi Incremental Soils	Preservative: PCB	Preservative: D120/1220	REMARKS/ LOC ID
1 A	AP-440	6/28/16	1130	S	1	G	X		
2 A	AP-Y32		1138		1	G	X		
3 A	AP-BB24		1140		1	G	X		
4 A	AP-X21		1143		1	G	X		
5 A	AP-AA5		1147		1	G	X		
6 A	AP-BB10		1151		1	G	X		
7 A	AP-1		1442		1	G	X		
8 A	AP-2		1447		1	G	X		
9 A	AP-3		1448		1	G	X		
10 A	AP-4		1450		1	G	X	X	

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	6/30/16	14:47	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: Level 2

Requested Turnaround Time and/or Special Instructions: Standard TAT

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(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

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Instructions: Sections 1 - 5 must be filled out.
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Section 1

CLIENT: SCI2 International

CONTACT: PHONE NO:

PROJECT NAME: MLHP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 3

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: PCB's	Preservative: DRO/RRO	REMARKS/ LOC ID
(11) A	AP-5	6/28/16	1453	S	1	C	X		
(12) A	AP-6		1456		1	C	X		
(13) A	AP-91		1442		1	C	X		
(14) A	AP-96		1456		1	C	X		
(15) A	AP-7		1458		1	C	X		
(16) A	AP-8		1501		1	C	X		
(17) A	AP-9		1504		1	C	X		
(18) A	AP-10		1505		1	C	X		
(19) A	AP-11		1541		1	C	X		
(20) A	AP-12		1543		1	C	X	X	

Section 2

Section 5

	Date	Time	
Relinquished By: (1) BRS	6/30/16	1447	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

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(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) IF

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Section 1

CLIENT: SLR International

CONTACT: PHONE NO:

PROJECT NAME: MLP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: PCBs	Preservative: DRO/RRO	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	REMARKS/ LOC ID
(21) A	AP-13	6/28/16	1555	S	1	C	X									
(22) A	AP-14	↓	1558	S	1	C	X									
(23) A	AP-15	6/29/16	1115	S	1	C	X									
(24) A	AP-16		1119	S	1	C	X									
(25) A	AP-17		1120	S	1	C	X									
(26)(27)(28) A	AP-18		1125	S	3	C	X		A-C							MS/MSD, 3X vol.
(29) A	AP-19		1128	S	1	C	X									
(30) A	AP-20		1129	S	1	C	X									
(31) A	AP-21		1123	S	1	C	X									
(32) A	AP-22	↓	1132	S	1	C	X									

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

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Section 1

CLIENT: SCI2 Internotrand

CONTACT: PHONE NO:

PROJECT NAME: MLP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Section 3 Preservative: PLBS	Preservative: D20/H2O	REMARKS/ LOC ID
33 A	AP-23	6/29/16	1133	S	1	C	X	X	
34 A	AP-24		1134 BV	S	1	C	X		
35 A	AP-924		1134 DUP	S	1	C	X		
36 A	AP-25		1417	S	1	C	X		
37 A	AP-26		1424	S	1	C	X		
38 A	AP-27		1426	S	1	C	X		
39 A	AP-927		1426	S	1	C	X		
40 A	AP-28		1430	S	1	C	X		
41 A	AP-29		1433	S	1	C	X		
42 A	AP-30		1434	S	1	C	X		

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

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Chain of Custody Seal: (Circle) IF

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Section 1

CLIENT: SLR International

CONTACT: PHONE NO:

PROJECT NAME: MLTP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB M = Multi Incre-mental Soils	Preservative: PCBs	Preservative: DRO/IRO	REMARKS/ LOC ID
(43) A	AP-31	6/29/16	1438	S	1	C	X		
(44) A	AP-33		1442	S	1	C	X	X	
(45) A	AP-32		1440	S	1	C	X		
(46) A	AP-34		1445	S	1	C	X		
(47) A	AP-35		1650	S	1	C	X		
(48) A	AP-36		1653	S	1	C	X		
(49) A	AP-37		1654	S	1	C	X		
(50)(65) A	AP-38		1700	S	13	C	X		MS/MSD, 3X vol
(63) A	AP-39		1701	S	1	C	X		
(64) A	AP-40		1708	S	1	C	X		

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.6 #11

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) IF

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Section 1

CLIENT: SLR International

CONTACT: PHONE NO:

PROJECT NAME: MLP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: PCBs	Preservative: D120/1220	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	REMARKS/ LOC ID
(56) A	AP-41	6/29/16	1709	S	1	C	X	X							
(57) A	AP-941		1709	S	1	C	X	X							
(57) A	AP-42		1712	S	1	C	X								
(58) A	AP-43		1713	S	1	C	X								
(59) A	AP-44		1716	S	1	C	X								
(60) A	AP-45	6/30/16	1111	S	1	C	X								
(61) A	AP-46		1117	S	1	C	X								
(57) A	AP-47		1123	S	1	C	X								
(63)(64)(65)	AP-48		1128	S	3	C	X				A-C				MS/MSD, 3X vol
(62) A	AP-49		1138	S	1	C	X	X							

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.6 #11

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

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[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

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1163579

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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: SLR International

CONTACT: PHONE NO:

PROJECT NAME: MLP Plant 1 PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 3

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: PCBs	Preservative: D120/8270	REMARKS/ LOC ID
(67) A	AP-949	6/30/16	1138	S	1	C	X		
(68) A	AP-50	"	1140	S	1	C	X		
(69) A	AP-51	"	1148	S	1	C	X		
(70) A	AP-52	"	1146	S	1	C	X		

Section 2

Section 5

	Date	Time	
Relinquished By: (1)	6/30/16	1447	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/30/16	1447	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.6 #11

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

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[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301

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http://www.sgs.com/terms-and-conditions

F083-Kit_Request_and_COC_Templates-Blank
Revised 2013-03-24

SGS

e-SAMPLE RECEIPT FORM

1163579

Review Criteria	Y/N (yes/no)	Exceptions Noted below
		☐ exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	Y	1F
COC accompanied samples?	Y	
☐ **exemption permitted if chilled & collected <8hrs ago or chlling not required (i.e., waste, oil)		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Y	Cooler ID: 1 @ 2.6 °C Therm ID: 11
	Y	Cooler ID: @ °C Therm ID:
	Y	Cooler ID: @ °C Therm ID:
	Y	Cooler ID: @ °C Therm ID:
	Y	Cooler ID: @ °C Therm ID:
*If >6°C, were samples collected <8 hours ago?	Y	
If <0°C, were sample containers ice free?	Y	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
		Note: Refer to form F-083 "Sample Guide" for hold times.
Were samples received within hold time?	Y	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Y	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous?	Y	
		☐ ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Y	
IF APPLICABLE		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	Y	
Were all VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	Y	
Were all soil VOAs field extracted with MeOH+BFB?	Y	

Note to Client: Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1163579001-A	No Preservative Required	OK	1163579037-A	No Preservative Required	OK
1163579002-A	No Preservative Required	OK	1163579038-A	No Preservative Required	OK
1163579003-A	No Preservative Required	OK	1163579039-A	No Preservative Required	OK
1163579004-A	No Preservative Required	OK	1163579040-A	No Preservative Required	OK
1163579005-A	No Preservative Required	OK	1163579041-A	No Preservative Required	OK
1163579006-A	No Preservative Required	OK	1163579042-A	No Preservative Required	OK
1163579007-A	No Preservative Required	OK	1163579043-A	No Preservative Required	OK
1163579008-A	No Preservative Required	OK	1163579044-A	No Preservative Required	OK
1163579009-A	No Preservative Required	OK	1163579045-A	No Preservative Required	OK
1163579010-A	No Preservative Required	OK	1163579046-A	No Preservative Required	OK
1163579011-A	No Preservative Required	OK	1163579047-A	No Preservative Required	OK
1163579012-A	No Preservative Required	OK	1163579048-A	No Preservative Required	OK
1163579013-A	No Preservative Required	OK	1163579049-A	No Preservative Required	OK
1163579014-A	No Preservative Required	OK	1163579050-A	No Preservative Required	OK
1163579015-A	No Preservative Required	OK	1163579050-B	No Preservative Required	OK
1163579016-A	No Preservative Required	OK	1163579050-C	No Preservative Required	OK
1163579017-A	No Preservative Required	OK	1163579051-A	No Preservative Required	OK
1163579018-A	No Preservative Required	OK	1163579051-B	No Preservative Required	OK
1163579019-A	No Preservative Required	OK	1163579051-C	No Preservative Required	OK
1163579020-A	No Preservative Required	OK	1163579052-A	No Preservative Required	OK
1163579021-A	No Preservative Required	OK	1163579052-B	No Preservative Required	OK
1163579022-A	No Preservative Required	OK	1163579052-C	No Preservative Required	OK
1163579023-A	No Preservative Required	OK	1163579053-A	No Preservative Required	OK
1163579024-A	No Preservative Required	OK	1163579054-A	No Preservative Required	OK
1163579025-A	No Preservative Required	OK	1163579055-A	No Preservative Required	OK
1163579026-A	No Preservative Required	OK	1163579056-A	No Preservative Required	OK
1163579026-B	No Preservative Required	OK	1163579057-A	No Preservative Required	OK
1163579026-C	No Preservative Required	OK	1163579058-A	No Preservative Required	OK
1163579027-A	No Preservative Required	OK	1163579059-A	No Preservative Required	OK
1163579027-B	No Preservative Required	OK	1163579060-A	No Preservative Required	OK
1163579027-C	No Preservative Required	OK	1163579061-A	No Preservative Required	OK
1163579028-A	No Preservative Required	OK	1163579062-A	No Preservative Required	OK
1163579028-B	No Preservative Required	OK	1163579063-A	No Preservative Required	OK
1163579028-C	No Preservative Required	OK	1163579063-B	No Preservative Required	OK
1163579029-A	No Preservative Required	OK	1163579063-C	No Preservative Required	OK
1163579030-A	No Preservative Required	OK	1163579064-A	No Preservative Required	OK
1163579031-A	No Preservative Required	OK	1163579064-B	No Preservative Required	OK
1163579032-A	No Preservative Required	OK	1163579064-C	No Preservative Required	OK
1163579033-A	No Preservative Required	OK	1163579065-A	No Preservative Required	OK
1163579034-A	No Preservative Required	OK	1163579065-B	No Preservative Required	OK
1163579035-A	No Preservative Required	OK	1163579065-C	No Preservative Required	OK
1163579036-A	No Preservative Required	OK	1163579066-A	No Preservative Required	OK

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1163579067-A	No Preservative Required	OK			
1163579068-A	No Preservative Required	OK			
1163579069-A	No Preservative Required	OK			
1163579070-A	No Preservative Required	OK			

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM- The container was received damaged.
FR- The container was received frozen and not usable for Bacteria or BOD analyses.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

LABORATORY DATA
QUALITY ASSURANCE REVIEW
OCTOBER 2016 DATA

SURFACE SOIL SITE INVESTIGATION OF THE PROPOSED ASPHALT PAVING AREA AND VICINITY, SECURITY FENCE UPGRADE PROJECT

ML&P PLANT 1
ANCHORAGE, ALASKA

OCTOBER 2016

Prepared by: Jennifer McLean
Reviewed by: Brent Veltkamp, Bret Berglund

SLR International Corporation
2700 Gambell Street, Suite 200
Anchorage, AK 99503

SLR Project Number 105.00528.11001, Task 360

ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
°C	degrees Celsius
CCV	continuing calibration verification
CFR	Code of Federal Regulations
COC	chain of custody
DL	detection limit
EDDs	electronic data deliverable
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LODs	limit of detection(s)
LOQ	limit of quantitation
mg/kg	milligrams per kilogram
ML&P	Anchorage Municipal Light and Power
MS	matrix spike
MSD	matrix spike duplicate
PARCCS	precision, accuracy, representativeness, comparability, completeness and sensitivity
PCB	polychlorinated biphenyls
QA	quality assurance
QAR	quality assurance review
RPD	relative percent difference
SDG	sample delivery group
SLR	SLR International Corporation
SGS	SGS North America, Inc.
TSCA	Toxic Substances Control Act

Introduction

This report summarizes a review of analytical data for samples collected on October 5th and October 6th, 2016 in support of planned construction at the Anchorage Municipal Light and Power (ML&P) Plant 1 in Anchorage, Alaska. Samples were collected by SLR International Corporation (SLR). SGS North America, Inc (SGS) provided analytical support to the project. SGS maintains a current Alaska Department of Environmental Conservation (ADEC) Contaminated Sites approval number (UST-005) for analytical methods of interest, as applicable. Table 1 provides a summary of the work order, sample receipt, analytical methods, and analytes.

Table 1 Sample Summary

SDG	Date Collected	Date Received by Laboratory	Temp. Blank	Matrix	Analytical Method	Analyte
1166030	10/5-6/2016	10/7/2016	5.7°C	soil	SW8082A	PCBs

Acronyms to Table 1:
°C – degrees Celsius
PCBs – polychlorinated biphenyls
SDG – sample delivery group

The laboratory final report was presented as a Level II deliverable and included documentation of the delivery group chain-of-custody (COC) and sample receipt condition. A Microsoft Access compatible electronic data deliverable (EDD) was also provided. The pdf laboratory report is provided as Attachment 2.

Quality Assurance Program

A quality assurance (QA) program was followed for this project that addressed project administration, sampling, quality control, and data review. SLR adhered to required and established sampling and COC protocols. The selected laboratory maintains an internal quality assurance program and standard operating procedures.

The analytical data was reviewed for consistency with any project specific requirements, *ADEC Technical Memorandum, Environmental Laboratory Data and Quality Assurance* (ADEC 2009) requirements, analytical method criteria, and laboratory criteria. An ADEC Laboratory Data Review Checklist was completed for the sample delivery group (SDG), and is included as Attachment 1 to this Quality Assurance Review (QAR). A review for any anomalies to the project requirements for precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS) are noted in this QAR, and any data qualifications discussed.

The data review included the following, as applicable:

- Reviewing COC records for completeness, signatures, and dates;
- Identifying any sample receipt or preservation anomalies that could impact data quality;
- Verifying that quality control (QC) blanks (i.e., field blanks, equipment blanks, trip blanks, method blanks, etc.) were properly prepared, identified, and analyzed;

- Evaluating whether laboratory reporting limits met project goals; Reviewing calibration verification recoveries, to include confirming that the laboratory did not identify that any Continuing Calibration Verification (CCV) recoveries or other calibration related criteria were outside applicable acceptance limits;

- Verifying that surrogate analyses were within recovery acceptance limits;

- Verifying that Laboratory Control Samples (LCS) and Laboratory Control Sample Duplicates (LCSD), and the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) were within recovery acceptance limits;

- Evaluating the result relative percent difference (RPD) between primary and duplicate field samples, LCS/LCSD, MS/MSD, and laboratory duplicates; and

- Providing an overall assessment of laboratory data quality and qualifying sample results if necessary.

Data Qualifications

As part of the quality assurance review, qualifiers were applied to data as determined necessary based on specified criteria or professional judgement. In all cases, the basis for qualification and the applied data flag are discussed in this QAR. Table 2 provides a list of potential qualifiers (i.e., flags). These data flags were appended to the data as appropriate.

Table 2 Potential Data Qualifiers

Qualifier	Definition
Q	One or more laboratory quality control criteria (for example, laboratory control sample (LCS) recovery or surrogate spike recovery) failed. Where applicable, an "H", "L", or "N" was appended to indicate positive, negative, or unknown bias, respectively.
J	Estimated: The analyte was positively identified but the result was outside the calibration range, between the limit of quantitation (LOQ) and the detection limit (DL); the quantitation was an estimate.
M	The concentration was an estimate due to a sample matrix quality control failure. Where applicable, an "H", "L", or "N" will be appended to indicate positive, negative, or unknown bias, respectively.
B	Blank contamination: The analyte was positively identified in the blank (e.g., trip blank and/or method blank) associated with the sample and the concentration reported for the sample was less than five times that of the blank (ten times for metals and common laboratory contaminants methylene chloride and acetone).
P	Sample preservation requirements were not satisfied.

A discussion of the project data quality relative to PARCCS goals and summary of any anomalies or failures requiring data qualifiers follows.

Data Validation

Data Packages
The data package was checked for transcription errors, omissions, or other anomalies. No issues were noted with regard to the data package.

Sample Receipt
The sample receipt documentation was checked for anomalies. No issues were noted with regard to the receipt of the samples.

Holding Times and Preservation
Samples were appropriately preserved and were submitted to SGS. Sample analyses were conducted within holding time criteria. No issues were noted in regard to sample preservation.

Laboratory Method Blanks
Laboratory method blanks were analyzed at the appropriate frequencies. Analytes were not detected in any method blanks.

Trip Blanks
Trip blanks were not required for the methods associated with this work order.

Reporting Limits
For non-detect results, limits of detection (LODs) were compared to applicable cleanup levels for the site. For soil samples, LODs were compared to the 18 Alaska Administrative Code (AAC) 75.341 Table B1 (ADEC, November 6, 2016). For polychlorinated biphenyls (PCBs) in soil, LODs were also compared to USEPA Toxic Substances Control Act (TSCA), and subject to the Code of Federal Regulations (CFR) under 40 CFR 761.61. Under 40 CFR 761.61(a) the PCB cleanup level for soil varies from 1 to 100 mg/kg depending upon the site occupancy. All samples with results of non-detect had LODs of 1 mg/kg or less, meeting the lowest applicable cleanup level.

Calibration Verifications
CCVs were analyzed at the appropriate frequencies. CCV data was included only in the EDD, and not in the case narrative. All CCV recoveries were within acceptable limits, as reviewed in the EDD.

Internal Standards
Internal standards were not applicable for the methods as reported in this work order.

Surrogate Recovery Results
Surrogate analysis was performed at the required frequencies. All surrogate recoveries were within analytical method and SGS percent recovery acceptance limits.

Laboratory Control Samples and Laboratory Control Duplicate Samples
An LCS and an MS/MSD were analyzed at the appropriate frequencies. All LCS recoveries were within acceptable limits.

Matrix Spike and Matrix Spike Duplicate Samples
MS/MSDs were analyzed at the appropriate frequencies. All project-specific MS/MSD percent recoveries and RPDs for samples analyzed at five-fold dilutions or lower were within acceptable limits. Two non-project specific MS/MSD pairs were also analyzed with the project samples. Recoveries for these non-project specific samples were outside of acceptance limits likely due to matrix interference. Project-specific data was not impacted, and all data was usable without qualification.

Field Duplicates
For soils, three field duplicates were analyzed for 26 primary samples for PCBs. This satisfied the required frequency of one per 10 samples or less per matrix and analyte. Field duplicates were submitted blind to the laboratory. Primary sample and field duplicate pairs are presented in Table 3.

Table 3 Primary Sample and Field Duplicate Pairs

Primary Sample	Field Duplicate	Analyte(s)	RPD
AP-56	AP-956	PCBs	Acceptable
NF-09	NF-99		Acceptable
NF-15	NF-915		Not acceptable

Except as noted in Table 4, all primary sample/field duplicate RPDs were within the ADEC required 50% for soils. Data were qualified as shown in the table. Both Aroclor-1260 and total PCB results were qualified. All affected results were below the lowest applicable cleanup level of 1 mg/kg for PCBs; therefore, data usability was not impacted.

Table 4 Field Duplicate RPD Exceedances

Primary Sample (Duplicate Sample)	Analyte	Primary Result (mg/kg)	Duplicate Result (mg/kg)	RPD	Data Flag
NF-15 (NF-915)	Aroclor-1260	0.0402 J	0.0797	66%	MN

Samples with both results below the LOQ were considered acceptable without qualification.

Laboratory Duplicate Samples
Laboratory duplicates were analyzed for total solids. All duplicate RPDs were within acceptable limits.

Summary of Data Quality Assessment

Precision, Accuracy, Representativeness, Comparability, Completeness, and Sensitivity Summary

- **Precision**: Precision goals were met, except as noted in the Field Duplicates section.
- **Accuracy**: Accuracy goals were met.
- **Representativeness**: Representativeness goals were met. The samples were collected from planned locations in accordance with ADEC guidelines.

- **Comparability**: Comparability goals were met. The same laboratory and methods were used.
- **Completeness**: The data were 100% complete with respect to analysis.
- **Sensitivity**: Sensitivity goals were met.

This data were considered of good quality and acceptable for use with the noted qualifications. No data were rejected.

References

Alaska Department of Environmental Conservation (ADEC). 2016. 18 Alaska Administrative Code (AAC) 75, Oil and Other Hazardous Substances Pollution Control. November 6, 2016.

ADEC. 2009. Environmental Laboratory Data and Quality Assurance Requirements. Technical Memorandum. March.

Toxic Substances Control Act (TSCA) of 1976. 40 Code of Federal Regulations (CFR) part 761. Amended June 1998.

United States Environmental Protection Agency (USEPA). 1991. Document 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, fourth edition. November.

Attachments

Attachment 1 – ADEC Data Review Checklist
Attachment 2 – Laboratory Deliverable

Attachment 1

ADEC Data Review Checklist

Laboratory Data Review Checklist

Completed by: Jennifer McLean

Title: Project Scientist Date: December 7, 2016

CS Report Name: ML& P, Plant 1, 2016 Construction Report Date: October 25, 2016

Consultant Firm: SLR International Corporation

Laboratory Name: SGS North America, Inc. Laboratory Report Number: 1166030

ADEC File Number: ADEC RecKey Number: NA

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      ☐ Yes ☐ No ☒ NA (Please explain.) Comments:

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. Correct analyses requested?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

None were noted.

e. Data quality or usability affected? (Please explain.)
Comments:

No impact.

4. Case Narrative
a. Present and understandable?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Were all corrective actions documented?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

None were taken.

d. What is the effect on data quality/usability according to the case narrative?
Comments:

No impact.

5. Samples Results
a. Correct analyses performed/reported as requested on COC?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?
Comments:

No impact.

6. QC Samples
a. Method Blank
i. One method blank reported per matrix, analysis and 20 samples?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. If above PQL, what samples are affected?
Comments:

Not applicable.

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?
☐ Yes ☐ No ☒ NA (Please explain.) Comments:

v. Data quality or usability affected? (Please explain.)
Comments:

No impact.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
☒ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and an MS/MSD were analyzed with each batch of 20 samples or less.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

No inorganics were analyzed with this work order.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

All LCS/LCSD recoveries were within acceptable limits.
All project specific MS/MSD percent recoveries for samples analyzed at five-fold dilutions or lower were within acceptable limits. Two non-project specific MS/MSD pairs were also analyzed with these samples. Recoveries for these non-project specific samples were outside of acceptance limits likely due to matrix interference. Data was not impacted. All data was usable without qualification.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Since the LCS recovered within acceptable limits and all project-specific MS/MSD percent recoveries were within acceptable limits, no data was affected.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

No data from this work order was affected.

vii. Data quality or usability affected? (Use comment box to explain.)

No impact.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

No impact.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

Trip blanks were not required for the analyses associated with this work order.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

Not applicable.

v. Data quality or usability affected? (Please explain.)

Comments:

No impact.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Submitted blind to lab?

☒ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☒ No ☐ NA (Please explain.) Comments:

For primary sample/field duplicate NF-15/NF-915; for Aroclor-1260, the RPD of 66% exceeded the allowed 50%. Aroclor-1260 and total PCB results for NF-15 and NF-915 were qualified with an "MN", and should be considered estimated with unknown bias.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

All affected results were below the lowest applicable cleanup level of 1 mg/Kg for PCBs; therefore, data quality or usability was not impacted.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

Disposable or dedicated sampling equipment was used for collection of all samples.

i. All results less than PQL?

☐ Yes ☐ No ☒ NA (Please explain.) Comments:

ii. If above PQL, what samples are affected?

Comments:

Not applicable.

iii. Data quality or usability affected? (Please explain.)

Comments:

Not applicable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)
   a. Defined and appropriate?
      ☒ Yes ☐ No ☐ NA (Please explain.) Comments:

Attachment 2

Laboratory Deliverable

Laboratory Report of Analysis

To: SLR Alaska-Anchorage
2700 Gambell Street, Suite 200
Anchorage, AK 99503
907-222-1112

Report Number: **1166030**

Client Project: **ML&P Construction**

Dear Bret Berglund,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **SLR Alaska-Anchorage**
SGS Project: **1166030**
Project Name/Site: **ML&P Construction**
Project Contact: **Bret Berglund**

Refer to sample receipt form for information on sample condition.

AP-57 MS (1166030006) BMS

8082A - PCB Aroclor 1260 BMS recovery (611%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

AP-57 MSD (1166030007) BMSD

8082A - PCB Aroclor 1260 BMSD recovery (3710%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

1165992042MS (1359628) MS

8082A - PCB Aroclor 1016 MS recovery (364%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.
8082A - PCB Aroclor 1260 MS recovery (180%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

1165542013MS (1359946) MS

8082A - PCB Aroclor 1260 MS recovery (392%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

1165992042MSD (1359629) MSD

8082A - PCB Aroclor 1260 MSD recovery (176%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.
8082A - PCB Aroclor 1016 MSD recovery (368%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

1165542013MSD (1359947) MSD

8082A - PCB Aroclor 1260 MSD recovery (511%) does not meet QC criteria due to matrix interference. Refer to the LCS for accuracy requirements.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

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SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
AP-53	1166030001	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-54	1166030002	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-55	1166030003	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-56	1166030004	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-57	1166030005	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-57 MS	1166030006	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-57 MSD	1166030007	10/05/2016	10/07/2016	Soil/Solid (dry weight)
AP-956	1166030008	10/05/2016	10/07/2016	Soil/Solid (dry weight)
E43	1166030009	10/05/2016	10/07/2016	Soil/Solid (dry weight)
F40	1166030010	10/05/2016	10/07/2016	Soil/Solid (dry weight)
G38	1166030011	10/05/2016	10/07/2016	Soil/Solid (dry weight)
M38	1166030012	10/05/2016	10/07/2016	Soil/Solid (dry weight)
NF-01	1166030013	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-03	1166030014	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-05	1166030015	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-08	1166030016	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-09	1166030017	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-12	1166030018	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-15	1166030019	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-18	1166030020	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-20	1166030021	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-22	1166030022	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-99	1166030023	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-915	1166030024	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-25	1166030025	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-26	1166030026	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-28	1166030027	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-30	1166030028	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-19	1166030029	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-19 MS	1166030030	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-19 MSD	1166030031	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-23	1166030032	10/06/2016	10/07/2016	Soil/Solid (dry weight)
NF-16	1166030033	10/06/2016	10/07/2016	Soil/Solid (dry weight)

Method	Method Description
SM21 2540G	Percent Solids SM2540G
SW8082A	SW8082 PCB's

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Detectable Results Summary

Client Sample ID: **AP-53**			
Lab Sample ID: 1166030001	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	264	ug/Kg
Client Sample ID: **AP-54**			
Lab Sample ID: 1166030002	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	368000	ug/Kg
Client Sample ID: **AP-55**			
Lab Sample ID: 1166030003	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	68000	ug/Kg
Client Sample ID: **AP-56**			
Lab Sample ID: 1166030004	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	6610	ug/Kg
Client Sample ID: **AP-57**			
Lab Sample ID: 1166030005	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	30900	ug/Kg
Client Sample ID: **AP-956**			
Lab Sample ID: 1166030008	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	6490	ug/Kg
Client Sample ID: **E43**			
Lab Sample ID: 1166030009	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	43.6J	ug/Kg
Client Sample ID: **F40**			
Lab Sample ID: 1166030010	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	22300	ug/Kg
Client Sample ID: **G38**			
Lab Sample ID: 1166030011	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	988	ug/Kg
Client Sample ID: **NF-03**			
Lab Sample ID: 1166030014	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	39.9J	ug/Kg
Client Sample ID: **NF-05**			
Lab Sample ID: 1166030015	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	26.5J	ug/Kg
Client Sample ID: **NF-08**			
Lab Sample ID: 1166030016	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	123	ug/Kg
Client Sample ID: **NF-12**			
Lab Sample ID: 1166030018	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	24.9J	ug/Kg

Detectable Results Summary

Client Sample ID: **NF-15**			
Lab Sample ID: 1166030019	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	40.2J	ug/Kg
Client Sample ID: **NF-18**			
Lab Sample ID: 1166030020	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	44.5J	ug/Kg
Client Sample ID: **NF-915**			
Lab Sample ID: 1166030024	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	79.7	ug/Kg
Client Sample ID: **NF-25**			
Lab Sample ID: 1166030025	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	110	ug/Kg
Client Sample ID: **NF-28**			
Lab Sample ID: 1166030027	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	60.1	ug/Kg
Client Sample ID: **NF-30**			
Lab Sample ID: 1166030028	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	26.6J	ug/Kg
Client Sample ID: **NF-19**			
Lab Sample ID: 1166030029	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	87.1	ug/Kg
Client Sample ID: **NF-23**			
Lab Sample ID: 1166030032	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	26.2J	ug/Kg
Client Sample ID: **NF-16**			
Lab Sample ID: 1166030033	Parameter	Result	Units
Polychlorinated Biphenyls	Aroclor-1260	42.5J	ug/Kg

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Results of **AP-53**

Client Sample ID: **AP-53**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030001
Lab Project ID: 1166030

Collection Date: 10/05/16 13:35
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):82.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.7	U	59.4	17.8	ug/Kg	1		10/19/16 05:20
Aroclor-1221	119	U	237	73.6	ug/Kg	1		10/19/16 05:20
Aroclor-1232	29.7	U	59.4	17.8	ug/Kg	1		10/19/16 05:20
Aroclor-1242	29.7	U	59.4	17.8	ug/Kg	1		10/19/16 05:20
Aroclor-1248	29.7	U	59.4	17.8	ug/Kg	1		10/19/16 05:20
Aroclor-1254	29.7	U	59.4	17.8	ug/Kg	1		10/19/16 05:20
Aroclor-1260	264		59.4	17.8	ug/Kg	1		10/19/16 05:20
Surrogates								
Decachlorobiphenyl (surr)	95		60-125		%	1		10/19/16 05:20

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/19/16 05:20
Container ID: 1166030001-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.878 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **AP-54**

Client Sample ID: **AP-54**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030002
Lab Project ID: 1166030

Collection Date: 10/05/16 13:42
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):85.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	14400	U	28800	8630	ug/Kg	500		10/22/16 03:33
Aroclor-1221	115	U	230	71.4	ug/Kg	1		10/19/16 05:49
Aroclor-1232	28.8	U	57.6	17.3	ug/Kg	1		10/19/16 05:49
Aroclor-1242	28.8	U	57.6	17.3	ug/Kg	1		10/19/16 05:49
Aroclor-1248	28.8	U	57.6	17.3	ug/Kg	1		10/19/16 05:49
Aroclor-1254	28.8	U	57.6	17.3	ug/Kg	1		10/19/16 05:49
Aroclor-1260	368000		28800	8630	ug/Kg	500		10/22/16 03:33
Surrogates								
Decachlorobiphenyl (surr)	125		60-125		%	1		10/19/16 05:49

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/19/16 05:49
Container ID: 1166030002-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.852 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9578
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/22/16 03:33
Container ID: 1166030002-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.852 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

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Results of **AP-55**

Client Sample ID: **AP-55**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030003
Lab Project ID: 1166030

Collection Date: 10/05/16 13:46
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):89.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	27.5	U	55.0	16.5	ug/Kg	1		10/19/16 06:32
Aroclor-1221	110	U	220	68.2	ug/Kg	1		10/19/16 06:32
Aroclor-1232	27.5	U	55.0	16.5	ug/Kg	1		10/19/16 06:32
Aroclor-1242	27.5	U	55.0	16.5	ug/Kg	1		10/19/16 06:32
Aroclor-1248	27.5	U	55.0	16.5	ug/Kg	1		10/19/16 06:32
Aroclor-1254	27.5	U	55.0	16.5	ug/Kg	1		10/19/16 06:32
Aroclor-1260	68000		5500	1650	ug/Kg	100		10/20/16 18:57
Surrogates								
Decachlorobiphenyl (surr)	99		60-125		%	1		10/19/16 06:32

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/19/16 06:32
Container ID: 1166030003-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.963 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9577
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 18:57
Container ID: 1166030003-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.963 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **AP-56**

Client Sample ID: **AP-56**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030004
Lab Project ID: 1166030

Collection Date: 10/05/16 13:48
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):95.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.0	U	52.0	15.6	ug/Kg	1		10/19/16 06:47
Aroclor-1221	104	U	208	64.5	ug/Kg	1		10/19/16 06:47
Aroclor-1232	26.0	U	52.0	15.6	ug/Kg	1		10/19/16 06:47
Aroclor-1242	26.0	U	52.0	15.6	ug/Kg	1		10/19/16 06:47
Aroclor-1248	26.0	U	52.0	15.6	ug/Kg	1		10/19/16 06:47
Aroclor-1254	26.0	U	52.0	15.6	ug/Kg	1		10/19/16 06:47
Aroclor-1260	6610		1040	312	ug/Kg	20		10/20/16 18:26
Surrogates								
Decachlorobiphenyl (surr)	92		60-125		%	1		10/19/16 06:47

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/19/16 06:47
Container ID: 1166030004-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.764 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9577
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 18:26
Container ID: 1166030004-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.764 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **AP-57**

Client Sample ID: **AP-57**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030005
Lab Project ID: 1166030

Collection Date: 10/05/16 14:00
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):94.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.1	U	52.3	15.7	ug/Kg	1		10/14/16 16:12
Aroclor-1221	105	U	209	64.8	ug/Kg	1		10/14/16 16:12
Aroclor-1232	26.1	U	52.3	15.7	ug/Kg	1		10/14/16 16:12
Aroclor-1242	26.1	U	52.3	15.7	ug/Kg	1		10/14/16 16:12
Aroclor-1248	26.1	U	52.3	15.7	ug/Kg	1		10/14/16 16:12
Aroclor-1254	26.1	U	52.3	15.7	ug/Kg	1		10/14/16 16:12
Aroclor-1260	30900		5230	1570	ug/Kg	100		10/17/16 20:06
Surrogates								
Decachlorobiphenyl (surr)	98		60-125		%	1		10/14/16 16:12

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 16:12
Container ID: 1166030005-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.696 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9565
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/17/16 20:06
Container ID: 1166030005-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.696 g
Prep Extract Vol: 5 mL

Results of **AP-956**

Client Sample ID: **AP-956**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030008
Lab Project ID: 1166030

Collection Date: 10/05/16 13:48
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):94.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.3	U	52.5	15.8	ug/Kg	1		10/19/16 07:01
Aroclor-1221	105	U	210	65.2	ug/Kg	1		10/19/16 07:01
Aroclor-1232	26.3	U	52.5	15.8	ug/Kg	1		10/19/16 07:01
Aroclor-1242	26.3	U	52.5	15.8	ug/Kg	1		10/19/16 07:01
Aroclor-1248	26.3	U	52.5	15.8	ug/Kg	1		10/19/16 07:01
Aroclor-1254	26.3	U	52.5	15.8	ug/Kg	1		10/19/16 07:01
Aroclor-1260	6490		1050	315	ug/Kg	20		10/20/16 18:36
Surrogates								
Decachlorobiphenyl (surr)	92		60-125		%	1		10/19/16 07:01

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/19/16 07:01
Container ID: 1166030008-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.647 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9577
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 18:36
Container ID: 1166030008-A

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/16 15:02
Prep Initial Wt./Vol.: 22.647 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

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Results of **E43**

Client Sample ID: **E43**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030009
Lab Project ID: 1166030

Collection Date: 10/05/16 14:18
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):85.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.9	U	57.8	17.3	ug/Kg	1		10/14/16 17:03
Aroclor-1221	116	U	231	71.6	ug/Kg	1		10/14/16 17:03
Aroclor-1232	28.9	U	57.8	17.3	ug/Kg	1		10/14/16 17:03
Aroclor-1242	28.9	U	57.8	17.3	ug/Kg	1		10/14/16 17:03
Aroclor-1248	28.9	U	57.8	17.3	ug/Kg	1		10/14/16 17:03
Aroclor-1254	28.9	U	57.8	17.3	ug/Kg	1		10/14/16 17:03
Aroclor-1260	43.6	J	57.8	17.3	ug/Kg	1		10/14/16 17:03
Surrogates								
Decachlorobiphenyl (surr)	92		60-125		%	1		10/14/16 17:03

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 17:03
Container ID: 1166030009-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.754 g
Prep Extract Vol: 5 mL

Results of **F40**

Client Sample ID: **F40**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030010
Lab Project ID: 1166030

Collection Date: 10/05/16 14:14
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):78.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	31.5	U	63.0	18.9	ug/Kg	1		10/14/16 17:13
Aroclor-1221	126	U	252	78.1	ug/Kg	1		10/14/16 17:13
Aroclor-1232	31.5	U	63.0	18.9	ug/Kg	1		10/14/16 17:13
Aroclor-1242	31.5	U	63.0	18.9	ug/Kg	1		10/14/16 17:13
Aroclor-1248	31.5	U	63.0	18.9	ug/Kg	1		10/14/16 17:13
Aroclor-1254	31.5	U	63.0	18.9	ug/Kg	1		10/14/16 17:13
Aroclor-1260	22300		1260	378	ug/Kg	20		10/17/16 20:36
Surrogates								
Decachlorobiphenyl (surr)	93		60-125		%	1		10/14/16 17:13

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 17:13
Container ID: 1166030010-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.769 g
Prep Extract Vol: 5 mL

Analytical Batch: XGC9565
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/17/16 20:36
Container ID: 1166030010-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.769 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **G38**

Client Sample ID: **G38**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030011
Lab Project ID: 1166030

Collection Date: 10/05/16 14:10
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):88.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 17:34
Aroclor-1221	114	U	227	70.3	ug/Kg	1		10/14/16 17:34
Aroclor-1232	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 17:34
Aroclor-1242	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 17:34
Aroclor-1248	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 17:34
Aroclor-1254	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 17:34
Aroclor-1260	988		56.7	17.0	ug/Kg	1		10/14/16 17:34
Surrogates								
Decachlorobiphenyl (surr)	93		60-125		%	1		10/14/16 17:34

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 17:34
Container ID: 1166030011-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.532 g
Prep Extract Vol: 5 mL

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Results of **M38**

Client Sample ID: **M38**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030012
Lab Project ID: 1166030

Collection Date: 10/05/16 14:00
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):95.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Aroclor-1221	104	U	208	64.4	ug/Kg	1		10/14/16 17:44
Aroclor-1232	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Aroclor-1242	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Aroclor-1248	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Aroclor-1254	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Aroclor-1260	25.9	U	51.9	15.6	ug/Kg	1		10/14/16 17:44
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 17:44

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 17:44
Container ID: 1166030012-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.675 g
Prep Extract Vol: 5 mL

Results of **NF-01**

Client Sample ID: **NF-01**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030013
Lab Project ID: 1166030

Collection Date: 10/06/16 09:45
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):81.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Aroclor-1221	121	U	242	75.0	ug/Kg	1		10/14/16 18:05
Aroclor-1232	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Aroclor-1242	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Aroclor-1248	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Aroclor-1254	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Aroclor-1260	30.3	U	60.5	18.2	ug/Kg	1		10/14/16 18:05
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 18:05

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 18:05
Container ID: 1166030013-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.814 g
Prep Extract Vol: 5 mL

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Results of **NF-03**

Client Sample ID: **NF-03**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030014
Lab Project ID: 1166030

Collection Date: 10/06/16 10:11
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):77.3
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:15
Aroclor-1221	128	U	256	79.4	ug/Kg	1		10/14/16 18:15
Aroclor-1232	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:15
Aroclor-1242	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:15
Aroclor-1248	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:15
Aroclor-1254	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:15
Aroclor-1260	39.9	J	64.1	19.2	ug/Kg	1		10/14/16 18:15
Surrogates								
Decachlorobiphenyl (surr)	92		60-125		%	1		10/14/16 18:15

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 18:15
Container ID: 1166030014-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.708 g
Prep Extract Vol: 5 mL

Results of **NF-05**

Client Sample ID: **NF-05**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030015
Lab Project ID: 1166030

Collection Date: 10/06/16 10:38
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):82.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.8	U	59.6	17.9	ug/Kg	1		10/14/16 18:35
Aroclor-1221	120	U	239	73.9	ug/Kg	1		10/14/16 18:35
Aroclor-1232	29.8	U	59.6	17.9	ug/Kg	1		10/14/16 18:35
Aroclor-1242	29.8	U	59.6	17.9	ug/Kg	1		10/14/16 18:35
Aroclor-1248	29.8	U	59.6	17.9	ug/Kg	1		10/14/16 18:35
Aroclor-1254	29.8	U	59.6	17.9	ug/Kg	1		10/14/16 18:35
Aroclor-1260	26.5	J	59.6	17.9	ug/Kg	1		10/14/16 18:35
Surrogates								
Decachlorobiphenyl (surr)	88		60-125		%	1		10/14/16 18:35

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 18:35
Container ID: 1166030015-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.821 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

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Results of **NF-08**

Client Sample ID: **NF-08**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030016
Lab Project ID: 1166030

Collection Date: 10/06/16 11:20
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):77.3
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:46
Aroclor-1221	128	U	256	79.5	ug/Kg	1		10/14/16 18:46
Aroclor-1232	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:46
Aroclor-1242	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:46
Aroclor-1248	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:46
Aroclor-1254	32.0	U	64.1	19.2	ug/Kg	1		10/14/16 18:46
Aroclor-1260	123		64.1	19.2	ug/Kg	1		10/14/16 18:46
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 18:46

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 18:46
Container ID: 1166030016-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.706 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-09**

Client Sample ID: **NF-09**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030017
Lab Project ID: 1166030

Collection Date: 10/06/16 11:30
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):86.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Aroclor-1221	114	U	228	70.6	ug/Kg	1		10/14/16 19:06
Aroclor-1232	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Aroclor-1242	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Aroclor-1248	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Aroclor-1254	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Aroclor-1260	28.4	U	56.9	17.1	ug/Kg	1		10/14/16 19:06
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 19:06

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 19:06
Container ID: 1166030017-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.854 g
Prep Extract Vol: 5 mL

Results of **NF-12**

Client Sample ID: **NF-12**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030018
Lab Project ID: 1166030

Collection Date: 10/06/16 12:37
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):78.9
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	31.2	U	62.4	18.7	ug/Kg	1		10/14/16 19:17
Aroclor-1221	125	U	249	77.3	ug/Kg	1		10/14/16 19:17
Aroclor-1232	31.2	U	62.4	18.7	ug/Kg	1		10/14/16 19:17
Aroclor-1242	31.2	U	62.4	18.7	ug/Kg	1		10/14/16 19:17
Aroclor-1248	31.2	U	62.4	18.7	ug/Kg	1		10/14/16 19:17
Aroclor-1254	31.2	U	62.4	18.7	ug/Kg	1		10/14/16 19:17
Aroclor-1260	24.9	J	62.4	18.7	ug/Kg	1		10/14/16 19:17
Surrogates								
Decachlorobiphenyl (surr)	88		60-125		%	1		10/14/16 19:17

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 19:17
Container ID: 1166030018-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.87 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-15**

Client Sample ID: **NF-15**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030019
Lab Project ID: 1166030

Collection Date: 10/06/16 13:14
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):85.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.1	U	58.3	17.5	ug/Kg	1		10/14/16 19:37
Aroclor-1221	117	U	233	72.3	ug/Kg	1		10/14/16 19:37
Aroclor-1232	29.1	U	58.3	17.5	ug/Kg	1		10/14/16 19:37
Aroclor-1242	29.1	U	58.3	17.5	ug/Kg	1		10/14/16 19:37
Aroclor-1248	29.1	U	58.3	17.5	ug/Kg	1		10/14/16 19:37
Aroclor-1254	29.1	U	58.3	17.5	ug/Kg	1		10/14/16 19:37
Aroclor-1260	40.2	J	58.3	17.5	ug/Kg	1		10/14/16 19:37
Surrogates								
Decachlorobiphenyl (surr)	89		60-125		%	1		10/14/16 19:37

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 19:37
Container ID: 1166030019-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.592 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-18**

Client Sample ID: **NF-18**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030020
Lab Project ID: 1166030

Collection Date: 10/06/16 13:21
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):88.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 19:47
Aroclor-1221	114	U	227	70.3	ug/Kg	1		10/14/16 19:47
Aroclor-1232	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 19:47
Aroclor-1242	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 19:47
Aroclor-1248	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 19:47
Aroclor-1254	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 19:47
Aroclor-1260	44.5	J	56.7	17.0	ug/Kg	1		10/14/16 19:47
Surrogates								
Decachlorobiphenyl (surr)	91		60-125		%	1		10/14/16 19:47

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 19:47
Container ID: 1166030020-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.526 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-20**

Client Sample ID: **NF-20**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030021
Lab Project ID: 1166030

Collection Date: 10/06/16 13:43
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):87.8
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Aroclor-1221	112	U	224	69.3	ug/Kg	1		10/14/16 20:08
Aroclor-1232	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Aroclor-1242	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Aroclor-1248	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Aroclor-1254	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Aroclor-1260	27.9	U	55.9	16.8	ug/Kg	1		10/14/16 20:08
Surrogates								
Decachlorobiphenyl (surr)	88		60-125		%	1		10/14/16 20:08

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 20:08
Container ID: 1166030021-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.926 g
Prep Extract Vol: 5 mL

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Results of **NF-22**

Client Sample ID: **NF-22**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030022
Lab Project ID: 1166030

Collection Date: 10/06/16 13:45
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):87.6
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Aroclor-1221	114	U	227	70.3	ug/Kg	1		10/14/16 20:18
Aroclor-1232	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Aroclor-1242	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Aroclor-1248	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Aroclor-1254	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Aroclor-1260	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:18
Surrogates								
Decachlorobiphenyl (surr)	89		60-125		%	1		10/14/16 20:18

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 20:18
Container ID: 1166030022-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.644 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-99**

Client Sample ID: **NF-99**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030023
Lab Project ID: 1166030

Collection Date: 10/06/16 11:30
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):87.7
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Aroclor-1221	114	U	227	70.3	ug/Kg	1		10/14/16 20:39
Aroclor-1232	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Aroclor-1242	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Aroclor-1248	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Aroclor-1254	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Aroclor-1260	28.4	U	56.7	17.0	ug/Kg	1		10/14/16 20:39
Surrogates								
Decachlorobiphenyl (surr)	89		60-125		%	1		10/14/16 20:39

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 20:39
Container ID: 1166030023-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.63 g
Prep Extract Vol: 5 mL

Results of **NF-915**

Client Sample ID: **NF-915**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030024
Lab Project ID: 1166030

Collection Date: 10/06/16 13:14
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):85.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.2	U	58.4	17.5	ug/Kg	1		10/14/16 21:09
Aroclor-1221	117	U	234	72.5	ug/Kg	1		10/14/16 21:09
Aroclor-1232	29.2	U	58.4	17.5	ug/Kg	1		10/14/16 21:09
Aroclor-1242	29.2	U	58.4	17.5	ug/Kg	1		10/14/16 21:09
Aroclor-1248	29.2	U	58.4	17.5	ug/Kg	1		10/14/16 21:09
Aroclor-1254	29.2	U	58.4	17.5	ug/Kg	1		10/14/16 21:09
Aroclor-1260	79.7		58.4	17.5	ug/Kg	1		10/14/16 21:09
Surrogates								
Decachlorobiphenyl (surr)	91		60-125		%	1		10/14/16 21:09

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 21:09
Container ID: 1166030024-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.538 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-25**

Client Sample ID: **NF-25**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030025
Lab Project ID: 1166030

Collection Date: 10/06/16 13:57
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):88.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.1	U	56.3	16.9	ug/Kg	1		10/14/16 21:20
Aroclor-1221	113	U	225	69.8	ug/Kg	1		10/14/16 21:20
Aroclor-1232	28.1	U	56.3	16.9	ug/Kg	1		10/14/16 21:20
Aroclor-1242	28.1	U	56.3	16.9	ug/Kg	1		10/14/16 21:20
Aroclor-1248	28.1	U	56.3	16.9	ug/Kg	1		10/14/16 21:20
Aroclor-1254	28.1	U	56.3	16.9	ug/Kg	1		10/14/16 21:20
Aroclor-1260	110		56.3	16.9	ug/Kg	1		10/14/16 21:20
Surrogates								
Decachlorobiphenyl (surr)	91		60-125		%	1		10/14/16 21:20

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 21:20
Container ID: 1166030025-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.714 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-26**

Client Sample ID: **NF-26**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030026
Lab Project ID: 1166030

Collection Date: 10/06/16 14:02
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):88.2
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Aroclor-1221	113	U	226	70.0	ug/Kg	1		10/14/16 21:40
Aroclor-1232	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Aroclor-1242	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Aroclor-1248	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Aroclor-1254	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Aroclor-1260	28.3	U	56.5	16.9	ug/Kg	1		10/14/16 21:40
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 21:40

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 21:40
Container ID: 1166030026-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.584 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-28**

Client Sample ID: **NF-28**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030027
Lab Project ID: 1166030

Collection Date: 10/06/16 14:13
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):88.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.2	U	56.4	16.9	ug/Kg	1		10/14/16 21:51
Aroclor-1221	113	U	225	69.9	ug/Kg	1		10/14/16 21:51
Aroclor-1232	28.2	U	56.4	16.9	ug/Kg	1		10/14/16 21:51
Aroclor-1242	28.2	U	56.4	16.9	ug/Kg	1		10/14/16 21:51
Aroclor-1248	28.2	U	56.4	16.9	ug/Kg	1		10/14/16 21:51
Aroclor-1254	28.2	U	56.4	16.9	ug/Kg	1		10/14/16 21:51
Aroclor-1260	60.1		56.4	16.9	ug/Kg	1		10/14/16 21:51
Surrogates								
Decachlorobiphenyl (surr)	90		60-125		%	1		10/14/16 21:51

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Analyst: S.G
Analytical Date/Time: 10/14/16 21:51
Container ID: 1166030027-A

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/16 16:05
Prep Initial Wt./Vol.: 22.587 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-30**

Client Sample ID: **NF-30**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030028
Lab Project ID: 1166030

Collection Date: 10/06/16 14:16
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):91.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	27.2	U	54.4	16.3	ug/Kg	1		10/20/16 12:21
Aroclor-1221	109	U	218	67.5	ug/Kg	1		10/20/16 12:21
Aroclor-1232	27.2	U	54.4	16.3	ug/Kg	1		10/20/16 12:21
Aroclor-1242	27.2	U	54.4	16.3	ug/Kg	1		10/20/16 12:21
Aroclor-1248	27.2	U	54.4	16.3	ug/Kg	1		10/20/16 12:21
Aroclor-1254	27.2	U	54.4	16.3	ug/Kg	1		10/20/16 12:21
Aroclor-1260	26.6	J	54.4	16.3	ug/Kg	1		10/20/16 12:21
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	1		10/20/16 12:21

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 12:21
Container ID: 1166030028-A

Prep Batch: XXX36555
Prep Method: SW3550C
Prep Date/Time: 10/18/16 16:03
Prep Initial Wt./Vol.: 22.695 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-19**

Client Sample ID: **NF-19**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030029
Lab Project ID: 1166030

Collection Date: 10/06/16 13:26
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):82.4
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.7	U	59.4	17.8	ug/Kg	1		10/20/16 00:25
Aroclor-1221	119	U	237	73.6	ug/Kg	1		10/20/16 00:25
Aroclor-1232	29.7	U	59.4	17.8	ug/Kg	1		10/20/16 00:25
Aroclor-1242	29.7	U	59.4	17.8	ug/Kg	1		10/20/16 00:25
Aroclor-1248	29.7	U	59.4	17.8	ug/Kg	1		10/20/16 00:25
Aroclor-1254	29.7	U	59.4	17.8	ug/Kg	1		10/20/16 00:25
Aroclor-1260	87.1		59.4	17.8	ug/Kg	1		10/20/16 00:25
Surrogates								
Decachlorobiphenyl (surr)	79		60-125		%	1		10/20/16 00:25

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 00:25
Container ID: 1166030029-A

Prep Batch: XXX36555
Prep Method: SW3550C
Prep Date/Time: 10/18/16 16:03
Prep Initial Wt./Vol.: 22.989 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-23**

Client Sample ID: **NF-23**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030032
Lab Project ID: 1166030

Collection Date: 10/06/16 13:52
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):85.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	29.1	U	58.3	17.5	ug/Kg	1		10/20/16 12:36
Aroclor-1221	117	U	233	72.3	ug/Kg	1		10/20/16 12:36
Aroclor-1232	29.1	U	58.3	17.5	ug/Kg	1		10/20/16 12:36
Aroclor-1242	29.1	U	58.3	17.5	ug/Kg	1		10/20/16 12:36
Aroclor-1248	29.1	U	58.3	17.5	ug/Kg	1		10/20/16 12:36
Aroclor-1254	29.1	U	58.3	17.5	ug/Kg	1		10/20/16 12:36
Aroclor-1260	26.2	J	58.3	17.5	ug/Kg	1		10/20/16 12:36
Surrogates								
Decachlorobiphenyl (surr)	80		60-125		%	1		10/20/16 12:36

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 12:36
Container ID: 1166030032-A

Prep Batch: XXX36555
Prep Method: SW3550C
Prep Date/Time: 10/18/16 16:03
Prep Initial Wt./Vol.: 22.67 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Results of **NF-16**

Client Sample ID: **NF-16**
Client Project ID: **ML&P Construction**
Lab Sample ID: 1166030033
Lab Project ID: 1166030

Collection Date: 10/06/16 13:28
Received Date: 10/07/16 13:00
Matrix: Soil/Solid (dry weight)
Solids (%):89.0
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	28.1	U	56.1	16.8	ug/Kg	1		10/20/16 11:53
Aroclor-1221	112	U	224	69.5	ug/Kg	1		10/20/16 11:53
Aroclor-1232	28.1	U	56.1	16.8	ug/Kg	1		10/20/16 11:53
Aroclor-1242	28.1	U	56.1	16.8	ug/Kg	1		10/20/16 11:53
Aroclor-1248	28.1	U	56.1	16.8	ug/Kg	1		10/20/16 11:53
Aroclor-1254	28.1	U	56.1	16.8	ug/Kg	1		10/20/16 11:53
Aroclor-1260	42.5	J	56.1	16.8	ug/Kg	1		10/20/16 11:53
Surrogates								
Decachlorobiphenyl (surr)	81		60-125		%	1		10/20/16 11:53

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Analyst: AEE
Analytical Date/Time: 10/20/16 11:53
Container ID: 1166030033-A

Prep Batch: XXX36555
Prep Method: SW3550C
Prep Date/Time: 10/18/16 16:03
Prep Initial Wt./Vol.: 22.53 g
Prep Extract Vol: 5 mL

Print Date: 10/25/2016 3:22:38PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1745399 [SPT/10018]
Blank Lab ID: 1358031

Matrix: Soil/Solid (dry weight)

QC for Samples:
1166030001, 1166030002, 1166030003, 1166030004, 1166030005, 1166030008, 1166030009, 1166030010, 1166030011, 1166030012, 1166030013, 1166030014, 1166030015, 1166030016, 1166030017, 1166030018, 1166030019, 1166030020, 1166030021, 1166030022, 1166030023, 1166030024, 1166030025, 1166030026, 1166030027, 1166030028, 1166030029,

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100			%

Batch Information

Analytical Batch: SPT10018
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA
Analytical Date/Time: 10/10/2016 5:43:00PM

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Duplicate Sample Summary

Original Sample ID: 1166059004
Duplicate Sample ID: 1358032

Analysis Date: 10/10/2016 17:43
Matrix: Soil/Solid (dry weight)

QC for Samples:

1166030001, 1166030002, 1166030003, 1166030004, 1166030005, 1166030008, 1166030009, 1166030010, 1166030011, 1166030012, 1166030013, 1166030014, 1166030015, 1166030016, 1166030017, 1166030018,

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	89.7	89.3	%	0.45	(< 15)

Batch Information

Analytical Batch: SPT10018
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 10/25/2016 3:22:43PM

Method Blank

Blank ID: MB for HBN 1745434 [XXX/36499]
Blank Lab ID: 1358107

Matrix: Soil/Solid (dry weight)

QC for Samples:
1166030005, 1166030009, 1166030010, 1166030011, 1166030012, 1166030013, 1166030014, 1166030015, 1166030016, 1166030017, 1166030018, 1166030019, 1166030020, 1166030021, 1166030022, 1166030023, 1166030024, 1166030025, 1166030026, 1166030027

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	98	60-125		%

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: S.G
Analytical Date/Time: 10/14/2016 3:52:00PM

Prep Batch: XXX36499
Prep Method: SW3550C
Prep Date/Time: 10/11/2016 4:05:24PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1166030 [XXX36499]
Blank Spike Lab ID: 1358108
Date Analyzed: 10/14/2016 16:02

Matrix: Soil/Solid (dry weight)

QC for Samples: 1166030005, 1166030009, 1166030010, 1166030011, 1166030012, 1166030013, 1166030014, 1166030015, 1166030016, 1166030017, 1166030018, 1166030019, 1166030020, 1166030021, 1166030022, 1166030023, 1166030024, 1166030025, 1166030026, 1166030027

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	171	77	(47-134)
Aroclor-1260	222	216	97	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	99	99	(60-125)

Batch Information

Analytical Batch: **XGC9560**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW F**
Analyst: **S.G**

Prep Batch: **XXX36499**
Prep Method: **SW3550C**
Prep Date/Time: **10/11/2016 16:05**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Billable Matrix Spike Summary

Original Sample ID: 1166030005
MS Sample ID: 1166030006 BMS
MSD Sample ID: 1166030007 BMSD

Analysis Date: 10/14/2016 16:12
Analysis Date: 10/14/2016 16:32
Analysis Date: 10/14/2016 16:43
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	26.1U	232	268	115	232	286	123	47-134	6.69	(< 30)
Aroclor-1260	30900	232	32278	611 *	232	39557	3710 *	53-140	20.00	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		232	224	96	232	220	95	60-125	1.08	

Batch Information

Analytical Batch: XGC9560
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: S.G
Analytical Date/Time: 10/14/2016 4:32:00PM

Prep Batch: XXX36499
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 10/11/2016 4:05:24PM
Prep Initial Wt./Vol.: 22.68g
Prep Extract Vol: 5.00mL

Analytical Batch: XGC9565
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: S.G
Analytical Date/Time: 10/17/2016 8:16:00PM

Prep Batch: XXX36499
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 10/11/2016 4:05:24PM
Prep Initial Wt./Vol.: 22.68g
Prep Extract Vol: 5.00mL

Print Date: 10/25/2016 3:22:47PM

Method Blank

Blank ID: MB for HBN 1745967 [XXX/36545]
Blank Lab ID: 1359626

Matrix: Soil/Solid (dry weight)

QC for Samples:
1166030001, 1166030002, 1166030003, 1166030004, 1166030008

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	90	60-125		%

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 10/18/2016 11:51:00PM

Prep Batch: XXX36545
Prep Method: SW3550C
Prep Date/Time: 10/17/2016 3:02:42PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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200 West Potter Drive Anchorage, AK 95518
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Blank Spike Summary

Blank Spike ID: LCS for HBN 1166030 [XXX36545]
Blank Spike Lab ID: 1359627
Date Analyzed: 10/19/2016 00:05

Matrix: Soil/Solid (dry weight)

QC for Samples: 1166030001, 1166030002, 1166030003, 1166030004, 1166030008

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	176	79	(47-134)
Aroclor-1260	222	233	105	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	89	89	(60-125)

Batch Information

Analytical Batch: **XGC9570**
Analytical Method: **SW8082A**
Instrument: **HP 6890 Series II ECD SV L R**
Analyst: **S.G**

Prep Batch: **XXX36545**
Prep Method: **SW3550C**
Prep Date/Time: **10/17/2016 15:02**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1165992042
MS Sample ID: 1359628 MS
MSD Sample ID: 1359629 MSD

Analysis Date: 10/19/2016 0:19
Analysis Date: 10/19/2016 0:34
Analysis Date: 10/19/2016 0:48
Matrix: Soil/Solid (dry weight)

QC for Samples: 1166030001, 1166030002, 1166030003, 1166030004, 1166030008

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	102U	226	820	364 *	227	834	368 *	47-134	1.64	(< 30)
Aroclor-1260	102U	226	406	180 *	227	399	176 *	53-140	1.70	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		226	261	116	227	245	108	60-125	6.59	

Batch Information

Analytical Batch: XGC9570
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: S.G
Analytical Date/Time: 10/19/2016 12:34:00AM

Prep Batch: XXX36545
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 10/17/2016 3:02:42PM
Prep Initial Wt./Vol.: 22.64g
Prep Extract Vol: 20.00mL

Print Date: 10/25/2016 3:22:52PM

Method Blank

Blank ID: MB for HBN 1746055 [XXX/36555]
Blank Lab ID: 1359944

Matrix: Soil/Solid (dry weight)

QC for Samples:
1166030028, 1166030029, 1166030032, 1166030033

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	15.0	ug/Kg
Aroclor-1221	100U	200	62.0	ug/Kg
Aroclor-1232	25.0U	50.0	15.0	ug/Kg
Aroclor-1242	25.0U	50.0	15.0	ug/Kg
Aroclor-1248	25.0U	50.0	15.0	ug/Kg
Aroclor-1254	25.0U	50.0	15.0	ug/Kg
Aroclor-1260	25.0U	50.0	15.0	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	87	60-125		%

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: AEE
Analytical Date/Time: 10/19/2016 11:42:00PM

Prep Batch: XXX36555
Prep Method: SW3550C
Prep Date/Time: 10/18/2016 4:03:51PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1166030 [XXX36555]
Blank Spike Lab ID: 1359945
Date Analyzed: 10/19/2016 23:56

Matrix: Soil/Solid (dry weight)

QC for Samples: 1166030028, 1166030029, 1166030032, 1166030033

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	182	82	(47-134)
Aroclor-1260	222	233	105	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	87	87	(60-125)

Batch Information

Analytical Batch: **XGC9575**
Analytical Method: **SW8082A**
Instrument: **HP 6890 Series II ECD SV L R**
Analyst: **AEE**

Prep Batch: **XXX36555**
Prep Method: **SW3550C**
Prep Date/Time: **10/18/2016 16:03**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1165542013
MS Sample ID: 1359946 MS
MSD Sample ID: 1359947 MSD

Analysis Date: 10/20/2016 13:34
Analysis Date: 10/20/2016 13:48
Analysis Date: 10/20/2016 14:17
Matrix: Soil/Solid (dry weight)

QC for Samples: 1166030028, 1166030029, 1166030032, 1166030033

Results by **SW8082A**

		Matrix Spike (ug/Kg)				Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Aroclor-1016	40.2U	355	370	104		353	378	107		47-134	2.30	(< 30)
Aroclor-1260	1290	355	2674	392	*	353	3096	511	*	53-140	14.50	(< 30)
Surrogates												
Decachlorobiphenyl (surr)		355	266	75		353	272	77		60-125	2.37	

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: AEE
Analytical Date/Time: 10/20/2016 1:48:00PM

Prep Batch: XXX36555
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 10/18/2016 4:03:51PM
Prep Initial Wt./Vol.: 22.83g
Prep Extract Vol: 5.00mL

Print Date: 10/25/2016 3:22:56PM

Billable Matrix Spike Summary

Original Sample ID: 1166030029
MS Sample ID: 1166030030 BMS
MSD Sample ID: 1166030031 BMSD

Analysis Date: 10/20/2016 0:25
Analysis Date: 10/20/2016 0:54
Analysis Date: 10/20/2016 1:22
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	29.7U	268	279	104	266	279	105	47-134	0.22	(< 30)
Aroclor-1260	87.1	268	305	81	266	311	84	53-140	2.12	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		268	210	78	266	210	79	60-125	0.10	

Batch Information

Analytical Batch: XGC9575
Analytical Method: SW8082A
Instrument: HP 6890 Series II ECD SV L R
Analyst: AEE
Analytical Date/Time: 10/20/2016 12:54:00AM

Prep Batch: XXX36555
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 10/18/2016 4:03:51PM
Prep Initial Wt./Vol.: 22.60g
Prep Extract Vol: 5.00mL

Print Date: 10/25/2016 3:22:56PM

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CHAIN OF CUSTODY RECORD

1166030

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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: SLR International

CONTACT: Bret Berglund PHONE NO: 563-2128

PROJECT NAME: MLTP Construction PROJECT/ PWSID/ PERMIT#: 105.00528.11001

REPORTS TO: Bret Berglund E-MAIL: bberglund@slrconsulting.com

INVOICE TO: SLR QUOTE #:

P.O. #:

Section 3

Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	u/p								REMARKS/ LOC ID
						PUB									
(1) A	AP-53	10/5/16	1335	S	1	C	X								
(2) A	AP-54		1342		1	C	X								
(3) A	AP-55		1346		1	C	X								
(4) A	AP-56		1348		1	C	X								
(5)(6)(7) A-B	AP-57		1400		2	C	X								2X VOL MS/MSD
(8) A	AP-956		1348		1	C	X								
(9) A	E43		1418		1	G	X								
(10) A	F40		1414		1	G	X								
(11) A	G38		1410		1	G	X								
(12) A	M38		1400		1	G	X								

Section 5

	Date	Time	
Relinquished By: (1)	10/7/16	1300	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 10/7/16	Time 1300	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: Standard TAT Level 2

Requested Turnaround Time and/or Special Instructions: Standard TAT

Temp Blank °C: 5.7 0.2

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN (ABSENT)

(See attached Sample Receipt Form)

hand delivered

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1166030

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: SLR

CONTACT: Bret Berglund PHONE NO:

PROJECT NAME: MLtP Construction PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: PCS	REMARKS/ LOC ID
(13) A	NF-01	10/6/16	0945	S	1	C	X	
(14) A	NF-03		1011		1	C	X	
(15) A	NF-05		1038		1	C	X	
(16) A	NF-08		~~1057~~ BV 1120		1	C	X	
(17) A	NF-09		1130		1	C	X	
(18) A	NF-12		1237		1	C	X	
(19) A	NF-15		1314		1	C	X	
(20) A	NF-18		1321		1	C	X	
(21) A	NF-20		1343		1	C	X	
(22) A	NF-22		1345		1	C	X	

Section 5

	Date	Time	
Relinquished By: (1)	10/7/16	1300	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	10/7/16	1300	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements: Level 2

Requested Turnaround Time and/or Special Instructions: Standard TAT

Temp Blank °C: _____ or Ambient [ ] (See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form)

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[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1166030

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: SLR

CONTACT: Bret Berglund PHONE NO:

PROJECT NAME: MLP construction PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

INVOICE TO: QUOTE #: P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: NaS	REMARKS/ LOC ID
(23) A	NF-99	10/6/16	1130	S	1	C	X	
(24) A	NF-915	"	1314	"	1	C	X	
(25) A	NF-25	"	1357	"	1	C	X	
(26) A	NF-26	"	1402	"	1	C	X	
(27) A	NF-28	"	1413	"	1	C	X	
(28) A	NF-30	"	1416	"	1	C	X	
(29)(30)(31) AB	NF-19	"	1326	"	2	C	X	MS/MSD 2X vol
(32) A	NF-23	"	1352	"	1	C	X	
(33) A	NF-16	"	1328	"	1	C	X	

Section 5

	Date	Time	
Relinquished By: (1)	10/7/16	1300	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	10/7/16	1300	Received For Laboratory By:

Section 4

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: Level 2

Requested Turnaround Time and/or Special Instructions: Standard TAT

Temp Blank °C: _____ or Ambient [ ] (See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form)

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

SGS

e-SAMPLE RECEIPT FORM

1166030

Review Criteria	Y/N (yes/no)	Exceptions Noted below
	Y	exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location		absent
COC accompanied samples?	Y	
		**exemption permitted if chilled & collected <8hrs ago or chlling not required (i.e., waste, oil)
	Y	Cooler ID: 1 @ 5.7 °C Therm ID: D12
		Cooler ID: @ °C Therm ID:
Temperature blank compliant* (i.e., 0-6 °C after CF)?		Cooler ID: @ °C Therm ID:
		Cooler ID: @ °C Therm ID:
		Cooler ID: @ °C Therm ID:
If >6°C, were samples collected <8 hours ago?		
If <0°C, were sample containers ice free?		
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
		Note: Refer to form F-083 "Sample Guide" for hold times.
Were samples received within hold time?	Y	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Y	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous?	Y	
		***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Y	
IF APPLICABLE		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?		
Were all VOA vials free of headspace (i.e., bubbles ≤ 6mm)?		
Were all soil VOAs field extracted with MeOH+BFB?		

Note to Client: Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1166030001-A	No Preservative Required	OK			
1166030002-A	No Preservative Required	OK			
1166030003-A	No Preservative Required	OK			
1166030004-A	No Preservative Required	OK			
1166030005-A	No Preservative Required	OK			
1166030005-B	No Preservative Required	OK			
1166030006-A	No Preservative Required	OK			
1166030006-B	No Preservative Required	OK			
1166030007-A	No Preservative Required	OK			
1166030007-B	No Preservative Required	OK			
1166030008-A	No Preservative Required	OK			
1166030009-A	No Preservative Required	OK			
1166030010-A	No Preservative Required	OK			
1166030011-A	No Preservative Required	OK			
1166030012-A	No Preservative Required	OK			
1166030013-A	No Preservative Required	OK			
1166030014-A	No Preservative Required	OK			
1166030015-A	No Preservative Required	OK			
1166030016-A	No Preservative Required	OK			
1166030017-A	No Preservative Required	OK			
1166030018-A	No Preservative Required	OK			
1166030019-A	No Preservative Required	OK			
1166030020-A	No Preservative Required	OK			
1166030021-A	No Preservative Required	OK			
1166030022-A	No Preservative Required	OK			
1166030023-A	No Preservative Required	OK			
1166030024-A	No Preservative Required	OK			
1166030025-A	No Preservative Required	OK			
1166030026-A	No Preservative Required	OK			
1166030027-A	No Preservative Required	OK			
1166030028-A	No Preservative Required	OK			
1166030029-A	No Preservative Required	OK			
1166030029-B	No Preservative Required	OK			
1166030030-A	No Preservative Required	OK			
1166030030-B	No Preservative Required	OK			
1166030031-A	No Preservative Required	OK			
1166030031-B	No Preservative Required	OK			
1166030032-A	No Preservative Required	OK			
1166030033-A	No Preservative Required	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM- The container was received damaged.
FR- The container was received frozen and not usable for Bacteria or BOD analyses.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.