Remedial Action Work Plan
La Center Middle School Construction

La Center School District Future Site
2001 NE Lockwood Creek Road
La Center, Washington
Ecology FSID 96671
Ecology CSID 14855
Ecology VCP ID SW1675

Prepared for:
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Project No. 22929.000

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1.0 INTRODUCTION

This Remedial Action Work Plan (RA WP) was prepared on behalf of the La Center School District to detail the removal and off-site disposal of shallow soils contaminated with dieldrin from the Future La Center Middle School site located at 2001 NE Lockwood Creek Road in La Center, Washington (Site; see Figure 1).

Preliminary soil testing results from August 2018 indicated that portions of the site had low-level detections of dieldrin, a commercial pesticide, in shallow soil. La Center School District submitted the results to the Washington State Department of Ecology (Ecology) for interpretation. Following their review, Ecology notified the Client that the detections of dieldrin in soil warranted listing the site on Washington's list of contaminated sites.

An Early Notice Letter Regarding the Release of Hazardous Substances dated February 22, 2019, was received by the school district on February 25, 2019. The letter indicated that the site has been added to the database of state cleanup sites and assigned Facility Site ID Number 96671.

Following receipt of the Letter, the Client elected to enter the Voluntary Cleanup Program (VCP) with Ecology in order to move the Site towards a regulatory determination of No Further Action (NFA). The client submitted the VCP application to Ecology on April 17, 2019 and was accepted into the program on April 30, 2019, at which time it was assigned the VCP Project ID SW1675.

A request for a jurisdictional determination has been submitted to Ecology to ensure that the wetlands outlined in the delineation report prepared by Olson Environmental LLC (Olson) in December 2018 are correct. A Joint Aquatic Resources Permit Application (JARPA) Form was submitted for the project in June 2018. The site plan is currently being developed, but it appears that at least 2,632 ft^2 of Category III wetlands will be impacted. Site development (or earthwork) is pending the issuance of a Section 401 Water Quality Certification (WQC) from Ecology and a Section 404 WQC permit from the United States Army Corps of Engineers (USACE).

1.1 Project Location

The Site consists of three tax lots (209118000, 209120000, and 209119000) comprising approximately 23 acres of undeveloped former agricultural fields. The Site is bounded to the north-northeast by NE Lockwood Creek Road and low-density residential lots to the east, south, and west. La Center School District intends to construct a new middle school at the Site (see the attached Figure 2 – Site Plan).

2.0 BACKGROUND

2.1 Site History

The site has been used for agriculture row crops from at least 1951 to 2018 with no roads or structures noted on the parcels. The northern two-thirds of the property is open grassland that is mowed periodically for hay. The adjoining southern parcel is an abandoned chicken farm that contains concrete pads and compacted gravel surfaces. The majority of this portion of the property is covered in non-native weeds. Additionally, seven Category IV wetlands (designated A-S, C-S, D-S, D-N, E-N, and F-N) and one Category III wetland (designated B-S) are located on the Site.

2.2 Previous Investigations

Olson Environmental LLC, August 2018
Olson collected soil samples from ten test pits across the Site in August 2018 for analysis of commercial pesticides and Resource Conservation and Recovery Act (RCRA) 8 Metals. Dieldrin was detected in two of the samples (from TP-3 and TP-7, both from 0.5 to 1 feet below ground surface [ft bgs]) with concentrations exceeding the MTCA Method B Unrestricted Land Use for Cancer (Method B[c]) cleanup level (0.0625 mg/kg). There were no detections of metals or other organochlorine pesticides exceeding applicable regulatory limits.

PBS Engineering and Environmental Inc., December 2018 and January 2019
PBS was contracted in December 2018 to review the previous sampling results and determine an appropriate course of action. PBS determined that dieldrin exceeded the MTCA Method B CUL at only two locations: TP3 and TP7. These sample locations are located on tax lots 209118000 and 209120000. As there were no detections of other organochlorine pesticides in the sample, dieldrin is considered the only chemical of concern at the Site.

PBS completed a focused site assessment to delineate the extent of dieldrin impacted soils surrounding the two locations with detections above the MTCA Method B CUL. During the first sampling event, conducted on December 5, 2018, PBS completed a total of 18 hand-dug borings that were advanced in half-foot increments to a total depth of 1.5 ft bgs. The borings were completed at the locations of TP3 and TP7 (for vertical delineation at those locations) and to the north, east, south, and west of TP3 and TP7 at distances of 25 ft and 50 ft for lateral delineation.

An additional soil sampling event was conducted on January 28, 2019, to confirm the TP3 and TP7 results from the August 2018 analyses and further delineate the extent of soil impacts around the original test pit locations. PBS completed 16 additional hand-dug borings at 6 ft and 12.5 ft to the north, east, south, and west of TP3 and TP7.

Based on the results of the focused investigation, PBS made the following determinations:

- The extent of dieldrin impacts at TP3 is restricted to approximately 13 feet around that location to a depth of 1.5 ft bgs.
- The original detection of dieldrin at TP7 was an isolated occurrence.

PBS Engineering and Environmental Inc., May and June 2019
In May 2019, Ecology requested additional characterization at the site to assess soil in the designated wetlands areas and groundwater for the presence of dieldrin and chlorinated herbicides. Ecology also requested assessment of soil from areas with concentrations of dieldrin above MTCA Method B CULs (SB-1/TP-3 and SB-10/TP-7) for chlorinated herbicide constituents.

Samples were collected from 0.5 ft bgs at the locations of TP3 and TP7 and analyzed for chlorinated herbicides, glyphosate, and aminomethylphosphonic acid (AMPA; a metabolite of glyphosphate). There were no detections of chlorinated herbicides or glyphosate in the samples. AMPA was detected in both samples with concentrations of 0.031 mg/kg and 0.042 mg/kg, respectively. There is no MTCA cleanup value for AMPA.

Soil samples were collected from three discrete sample locations from each wetland area that will be retained (A-S, B-S, and D-N) at 0.5 foot intervals to a depth of 1.0 feet bgs using a hand shovel. Where dieldrin was detected at concentrations exceeding the CUL in the 0.5 foot-bgs sample, a second sample from the 6 to 12-inch depth was analyzed. Dieldrin was detected at concentrations exceeding the CUL at all three A-S wetland locations at depths from 0.0 to 1.0 ft bgs. Dieldrin was not detected in the samples collected from wetlands B-S and D-N. Chlorinated herbicides, glyphosate, and AMPA were not detected in any of the samples.

Groundwater samples were collected from the onsite piezometers (PZ1 and PZ2) and submitted for laboratory analysis of dieldrin, chlorinated herbicides, and glyphosate and AMPA. None of these compounds were detected in the groundwater samples above the laboratory reporting level. The depth to groundwater was measured at 5 to 6 feet below ground surface in the piezometer wells.

Investigation locations are shown on Figure 2. Analytical data for the August 2018 sampling event by Olson and the subsequent events by PBS are tabulated and compared to applicable CULs[1] on Table 1 (soil) and Table 2 (groundwater). Copies of the laboratory analytical reports are included in Appendix A.

PBS Engineering and Environmental Inc., July 2019

Soil/sediment samples were collected from the locations of A-S-A, A-S-B, and A-S-C at 1.5 ft bgs and 2.0 ft bgs for vertical delineation at those locations. Sixteen step-out borings were completed in two rings (8 in an inner ring and 8 in an outer ring) to the north, east, south, and west around the original A-S sample locations. Samples were collected from each boring from the 0.5, 1.0, 1.5, and 2.0 ft bgs depths for horizontal delineation in the Wetland A-S area.

The vertical extent of dieldrin impacts is limited to less than 1.5 ft bgs in most of the Wetland A-S area. The vertical extent was not completely delineated in the southwest corner of the property but is presumed to be less than 2 ft bgs based on the declining concentrations with depth and the expected depth of tilling at the property. The horizontal extent of dieldrin in soil in the Wetland A-S area has not been fully characterized, however, impacts generally increase from the north-northeast to southwest at corresponding depths (Figure 4A). The northeast-southwest trend in dieldrin concentrations generally follows the observed topography at the property which has an overall gentle slope towards the southwest corner.

Investigation locations are shown on Figures 2 and 4A. Analytical data for the August 2018 sampling event by Olson and the subsequent events by PBS are tabulated and compared to applicable CULs[2] on Table 1 (soil) and Table 2 (groundwater). Copies of the laboratory analytical reports are included in Appendix A.

[1] Model Toxics Control Act Regulations and Statute, Washington State Department of Ecology Toxics Cleanup Program October 12, 2007, Revised 2013.

[2] Model Toxics Control Act Regulations and Statute, Washington State Department of Ecology Toxics Cleanup Program October 12, 2007, Revised 2013.

2.3 Contaminants of Concern

The Future La Center Middle School site has been identified with dieldrin in soil at concentrations above selected Washington State Department of Ecology (Ecology) Model Toxic Control Act (MTCA) Method B Unrestricted Land Use for Cancer (Method B[c]) cleanup levels. The origin of the impacted soils at the middle school site is related to the former application of commercial pesticides related to the previous Site use for agriculture row crops.

3.0 PURPOSE AND SCOPE

The purpose of the proposed soil removal is to reduce the risk of human contact with dieldrin-impacted soil for future receptors. The objective is to remove the shallow soil with dieldrin concentrations exceeding the MTCA Method B (cancer) CUL. The impacted soils range between 0 and 18 inches below ground surface around the locations of test pits TP3 and TP7 and from 0 to 24 inches below ground surface in the A-S wetland area. After the successful completion of the removal of the affected topsoil, the site will be re-graded and developed with a middle school. Consideration of wetland mitigation or wetland bank in the A-S area is being determined by the school district project team.

Based on the results of the previous investigations, there are approximately 625 square feet around TP3 and TP7 and 2.96 acres (129,000 square feet) in the Wetland A-S area that will require remediation. Approximately 70 cubic yards (cy) of topsoil from the TP3 and TP7 areas and 7,425 cy of topsoil from the Wetland A-S area will be removed. The soil will be exported off-site for applicable disposal.

The removal actions will be scheduled to occur in phases. The TP-3 and TP-7 areas are outside of wetland zones and excavation can proceed without 401/404 certification approval. The soil to be excavated from the A-S designated wetland area will require 401/404 certification approval prior to removal. Both removal events are planned to be completed before general construction activities for the new school project.

4.0 SOIL REMOVAL PLAN

This section covers the planning, excavation, staging, transport, and disposal of dieldrin contaminated soil from surface and sub-surface locations at the project site as defined on Figures 3 and 4. The purpose of the proposed soil removal is to reduce the risk to direct contact with the impacted soils by future receptors on the site. The proposed remediation of the site involves the removal of soil exceeding CULs from the site and off-site disposal of impacted soil. Stormwater will be managed at the site during soil removal actions in accordance with the *Stormwater Management Plan of Onsite Contaminated Soils for the New La Center Middle* prepared by PBS in July 2019.

4.1 Preconstruction Activities

Permits and notifications as required for the completion of the work by the Washington State Department of Labor and Industries, the Washington State Department of Ecology, and any other permitting agency involved with the completion of the work included herein. This includes, but is not limited to, a grading permit from the City of La Center, a Construction Stormwater

General Permit (CSWGP) from Ecology, and Section a 404 WQC permit from the United States USACE.

The corners of the excavation areas, shown in Figures 3 and 4, will be marked in the field with surveyor's stakes to guide the soil removal. A utility locate request will be submitted to the Washington Utility Notification Center (WUNC) at least 3-business days prior to beginning work at the Site. Additionally, a private underground utility locator will be subcontracted to confirm the absence of underground utilities within each excavation area.

4.2 Health and Safety

A site-specific Health and Safety Plan (HASP) will be prepared in accordance with WAC 296-843-120 (Health and Safety Plan), and will include information specific to worker training, protection and decontamination related to soil contamination. The HASP will be distributed to all on-site employees performing work near contaminated media, who are to read it, sign a compliance agreement and abide by its provisions. The HASP shall address safe and proper handling of contaminated soil.

4.3 Excavation and Stockpiling/Loading

The topsoil will be removed with earth-moving scrapers and excavation equipment from the areas shown on Figures 3 and 4b. Soil will be excavated from three discrete areas of the Site as described below:

- A 25 ft by 25 ft square around location TP3 extending to a depth of 1.5 ft bgs. Approximately 35 cy of soil will be removed from this area.
- A 25 ft by 25 ft square around location TP7 extending to a depth of 1.5 ft bgs. Approximately 35 cy of soil will be removed from this area.
- It is anticipated that a rectangular area of approximately 430 ft by 300 ft encompassing the extent of Wetland A-S will be excavated to a depth of 1.5 ft bgs. An area of approximately 140 ft by 110 ft in the southwestern corner of the property will be excavated an additional 6 inches to a depth of 2.0 ft bgs. Approximately 7,425 cy of soil will be removed from this area.
    - Although the distribution of higher dieldrin levels is centered in the low spot of the A-S wetland and diminishes with rise in surface elevation (Figure 4a), the horizontal extent of dieldrin impacts to soil in the Wetland A-S area is not fully delineated. The extent of excavation extending to the north, south and east of the A-S area are intended to capture and remove residual dieldrin in soil. The planned excavation area also extends to the east and southern property lines to fully capture and remove residual dieldrin in surface soils to the boundary of the subject property.
    - Restoration of the A-S wetland is addressed in a separate wetland mitigation plan as developed by PBS. It is anticipated that the La Center School District will purchase a wetland banking mitigation credit in lieu of restoring the wetland area at this time.

The soil will be excavated in a manner that prevents vertical mixing of contaminated soil with clean soil. Movement of excavation equipment over or through contaminated soil will be minimized to prevent cross-contamination. Material intended for off-site disposal will be loaded directly onto trucks for transport to the disposal facility. All truck loads will be securely covered before leaving the project site and remained covered during transport of the soil to the disposal area.

If stockpiling is required, including the temporary storage of contaminated soil in a clean area, the stockpiles shall adhere to the following:

- Stockpiles shall be lined with plastic sheeting with a minimum of 6 millimeters, with adjacent sheeting sections overlapping a minimum of 3 feet;
- The perimeter of the stockpiles shall be surrounded by a berm to prevent run-on and/or run-off of precipitation;
- Stockpiles shall be covered when not in use and the cover should be anchored to prevent it from being disturbed by wind and shielded from precipitation.

4.4 Contaminated Soil Transport and Off-site Disposal

Transport of contaminated soil to the appropriate disposal facilities will be performed by haulers licensed to transport the type of contaminated soil. The Contractor shall be prepared to dispose of soils contaminated with dieldrin. Contaminated soils shall be presumed to be non-hazardous soils to be disposed of at an approved facility or Subtitle D landfill. Contractor shall submit a copy of its Transporter's permit/qualifications for shipping Contaminated Wastes prior to any waste shipment.

The Contractor shall provide the Environmental Consultant with copies of shipping records (manifest or bill of lading) and weight tickets for all Contractor shipped wastes, indicating each waste shipment has been received at a disposal facility. Provide copies to the Environmental Consultant within 7 working days of removal.

4.5 Site Control and Equipment Decontamination

Heavy equipment, including excavators and haul trucks, will arrive at the site free of debris and contamination. Prior to soil removal work, a CSWGP will be obtained from Ecology for the total site. The permit application will note the proposed construction entrance for the work.

A staging area will be developed near the point where the trucks will enter the public roadway system. Prior to leaving the construction site, all heavy equipment will have visible soil removed from the wheels, wheel wells, and other exterior areas of the vehicle. The same decontamination process will be used for equipment moving from contaminated areas to non-contaminated cells to avoid cross contamination. The tracking of soil onto public roadways will be minimized by using standard construction practices, including the use of a trackout pad composed of washed gravel or crushed rock. Trackout will be cleaned up from roadways as needed by using a street

sweeper, wet broom or by manual sweeping. Dust generation will be minimized from the construction site by watering of soils as needed during excavation.

The contractor will obtain all necessary permits, including storm water control permits, and follow best management practices to minimize migration of contaminated soils and runoff into sensitive environments.

4.6 Site Restoration

4.6.1 General Site Restoration

Excavation areas will be backfilled with salvaged soil from grading operations at the site or with clean imported backfill if grading will not be completed within a reasonable timeframe. If salvaged soil is used it will be obtained from Site locations with prior sample data documenting dieldrin levels below the MTCA Method B Unrestricted Land Use for Cancer (Method B[c]) cleanup level. Imported clean soils means that soils that originate from offsite sources and are free from dieldrin, or other contaminants, such as petroleum hydrocarbons, metals, other pesticides, etc. in excess of generally accepted background concentrations. Imported clean soil does not include washed crushed rock or quarry spall that is reasonably free of fines and presumed to be free of dieldrin or other contaminants as listed above. Completion of the backfill will include hydroseeding to provide immediate erosion control protection and restore a permanent vegetative cover

4.6.2 Wetland A-S Restoration

Following excavation and removal of contaminated soils, the area will be inspected for suitable remaining clay depths to ensure that wetland hydrology will remain following soil importation. Clean Washington Department of Transportation specifications Topsoil A will be imported into to approximating establish pre-disturbance grades within the wetland and adjacent buffer areas. Immediately following importation and grading of fill material, the wetland and buffer will be hydroseeded with a native emergent wetland and buffer seed mix. The hydroseed mixture will include mulch and tackifier to prevent erosion and diminish the opportunity for establishment of weedy species.

A series of piezometers will be installed to monitor sub-surface ground water levels during the early growing season (February-April) for a period of three years in order to demonstrate that wetland hydrology has not been altered to the extent that the disturbed area no longer functions as a wetland. A brief yearly monitoring report summarizing the piezometer data and native vegetation coverage will be completed and submitted to the Ecology and USACE for compliance with issued permits.

A detailed plan for restoration and follow-up monitoring will be submitted to Ecology under separate cover.

5.0 POST-REMOVAL CONFIRMATION SAMPLING

5.1 Soil Confirmation Sampling

It is expected that approximately 2.99 acres of land will undergo excavation of dieldrin-contaminated soil. Confirmation soil samples will be collected from areas where dieldrin-contaminated soil was removed to verify the effectiveness of the soil removal. The location of each discrete sample will be recorded using global positioning technology.

Confirmation samples will be collected from each excavation area as described below:

- Three equally spaced samples will be collected from the bottom of the excavation surrounding the location of TP3.
- Three equally spaced samples will be collected from the bottom of the excavation surrounding the location of TP7.
- Confirmation sampling for the A-S wetland area will be completed on a gridded basis. The grid will consist of approximately 50 ft by 50 ft squares and one sample will be collected from the bottom of each square.
    - Alternatively, incremental sampling methodology (ISM) will be employed in accordance with the Interstate Technology and Regulatory Council's (ITRC) Incremental Sampling Methodology Technical and Regulatory Guidance published in February 2012 if use of ISM will not result in work delays. If ISM is employed for the confirmation sampling, one sample will be collected from each grid area and combined to form a single sample. The analytical laboratory will process and analyze the sample in accordance with the ITRC guidance document.
        - If ISM is employed, two field replicate samples will be collected and submitted to the laboratory as "blind" samples under fictitious sample identifications.
    - Sidewall samples may be collected from below the root zone (if encountered) at 150-foot intervals from the A-S wetland area.

Samples will be collected directly into laboratory-provided containers that will be sealed, labeled, and stored on ice for the duration of sampling and for transportation to a Washington-accredited laboratory. Analysis will be conducted on an expedited turnaround time (48-hours).

The samples will be analyzed as indicated above for the following laboratory methods:

- Dieldrin by US Environmental Protection Agency (EPA) Method 8081A.

5.2 Groundwater Sampling

Per Ecology's comment during a telephone meeting on July 18, 2019 to discuss further action at the property, assessment of groundwater in the southwest corner of the property will be required.

- PBS proposes to install three temporary well points using push probe drilling techniques to permit collection of groundwater samples for laboratory analysis. See Figure 4a for locations of proposed monitoring wells.
- The temporary well points will be advanced to a depth of approximately 15 feet below ground surface, and a 10-foot long pre-packed filter screen well will be installed. Following installation of the wells, water depths will be measured, the wells will be purged, and a groundwater water sample will be collected using low-flow sample procedures from each well. The groundwater samples will be analyzed for dieldrin. by US Environmental Protection Agency (EPA) Method 8081A.
- The temporary well points will be removed upon completion of sampling and the borings will be backfilled with hydrated bentonite chips to the surface.

Additional post-excavation groundwater sampling, as requested by Ecology in email communications dated August 1, 2019 and August 13, 2019, will be addressed under separate cover.

5.3 Field Quality Assurance/Quality Control Samples

Quality Assurance/Quality Control (QA/QC) samples will be collected at a frequency of one per 20 samples for each media type and analysis (unless otherwise indicated above). Field replicates will be collected in a manner identical to the original sample and submitted as "blind" samples under fictitious sample identification to the analytical laboratory.

6.0 REPORTING

Upon completion of the soil removal and confirmation sampling, a project completion report will be prepared that documents the specific depths and locations of the excavated dieldrin-impacted soil, locations and results of confirmation soil samples, and evaluation of the lab results with respect to cleanup levels. An accompanying narrative will describe the segregation, stockpiling and sampling operations, and any deviations to the procedures that occurred. Corrective actions will be identified as needed, and the resolution of any discrepancies will be reported. Photographic documentation of the individual excavation areas will be included as an appendix to the report.

Environmental data generated during additional remedial activities (e.g. confirmation soil sampling) and post-remedial action sampling (e.g. groundwater sampling from temporary wells) will be submitted to Ecology's Environmental Information Management (EIM) database within 30 days of receipt of final laboratory data.

7.0 SIGNATURES

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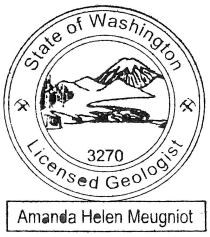
Date: 2019.08.22 16:34:45 -07'00'

Bret Waldron, LG
Project Geologist

Digitally signed by Amanda Meugniot
Date: 2019.08.22 16:37:57 -07'00'



Amanda Meugniot, LG
Senior Geologist

Digitally signed by Thomas Mergy
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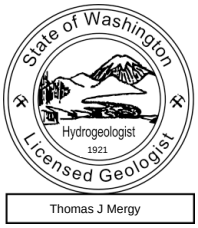


Thomas Mergy, LHG
Senior Project Manager

TABLES

Table 1. Summary of Soil Analytical Results

2001 NE Lockwood Creek Road

La Center, Washington

				Detected Pesticides	Detected Herbicides	Detected Metals							
Sample ID	Sample Description	Sample Date	Depth Collected (feet bgs)	Dieldrin	AMPA	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Vanadium	Zinc
				mg/kg									
August Soil Sampling - Olson Environmental LLC													
TP1- 6-12	Initial Sample	8/14/2018	0.5 - 1	0.017	--	7.8	190	23	31	9.9	11	100	< 69
TP2- Surface	Initial Sample	8/14/2018	0.0	< 0.0054	--	5.6	150	31	< 14	12	13	98	< 68
TP2- 6-12	Initial Sample	8/14/2018	0.5 - 1	< 0.0055	--	8.6	190	32	21	12	13	130	< 69
TP2- 18	Initial Sample	8/14/2018	1.5	< 0.0056	--	6.2	150	44	< 14	9.2	12	110	< 71
TP3- 6-12	Initial Sample	8/14/2018	0.5 - 1	**0.082**	--	3.0	130	16	< 14	6.0	16	58	< 69
TP4- Surface	Initial Sample	8/14/2018	0.0	0.051	--	3.0	140	14	< 14	11	13	66	< 68
TP4- 6-12	Initial Sample	8/14/2018	0.5 - 1	0.044	--	3.7	150	14	< 14	11	13	83	< 69
TP4- 18	Initial Sample	8/14/2018	1.5	< 0.0056	--	5.8	180	21	14	13	13	120	72
TP5- 6-12	Initial Sample	8/14/2018	0.5 - 1	< 0.0055	--	4.4	120	14	< 14	8.4	12	84	< 68
TP6- 6-12	Initial Sample	8/14/2018	0.5 - 1	< 0.0055	--	3.7	140	15	< 14	8.9	13	67	< 68
TP7- 6-12	Initial Sample	8/14/2018	0.5 - 1	**0.070**	--	3.4	120	15	< 13	12	12	81	< 67
TP8- Surface	Initial Sample	8/14/2018	0.0	< 0.0053	--	3.0	130	14	< 13	12	14	70	< 67
TP8- 6-12	Initial Sample	8/14/2018	0.5 - 1	< 0.0055	--	3.8	140	14	< 14	11	13	80	< 69
TP8- 18	Initial Sample	8/14/2018	1.5	< 0.0056	--	5.3	160	18	17	12	13	98	< 70
TP9- 6-12	Initial Sample	8/14/2018	0.5 - 1	< 0.0055	--	7.8	140	18	19	16	11	140	< 69
TP10- 6-12	Initial Sample	8/14/2018	0.5 - 1	0.011	--	3.2	130	19	< 14	15	13	87	100
December 2018 and January 2019 Soil Sampling - PBS Engineering and Environmental Inc.													
SB-1-0.5	TP3 - Confirmation Sample	1/28/2019	0 - 0.5	0.0336	--	--	--	--	--	--	--	--	--
SB-1-1	TP3 - Confirmation Sample	1/28/2019	0.5 - 1	0.0443	--	--	--	--	--	--	--	--	--
SB1-1.5	TP3 - Confirmation Sample	12/5/2018	1 - 1.5	< 0.0254	--	--	--	--	--	--	--	--	--
SB2-0.5	25 Foot Step-Out at TP3	12/5/2018	0 - 0.5	< 0.0259	--	--	--	--	--	--	--	--	--
SB2-1	25 Foot Step-Out at TP3	12/5/2018	0.5 - 1	< 0.0256	--	--	--	--	--	--	--	--	--
SB2-1.5	25 Foot Step-Out at TP3	12/5/2018	1 - 1.5	< 0.0257	--	--	--	--	--	--	--	--	--
SB4-0.5	25 Foot Step-Out at TP3	12/5/2018	0 - 0.5	< 0.0260	--	--	--	--	--	--	--	--	--
SB4-1	25 Foot Step-Out at TP3	12/5/2018	0.5 - 1	< 0.0257	--	--	--	--	--	--	--	--	--
SB4-1.5	25 Foot Step-Out at TP3	12/5/2018	1 - 1.5	< 0.0257	--	--	--	--	--	--	--	--	--
SB6-0.5	25 Foot Step-Out at TP3	12/5/2018	0 - 0.5	< 0.0267	--	--	--	--	--	--	--	--	--
SB6-1	25 Foot Step-Out at TP3	12/5/2018	0.5 - 1	< 0.0256	--	--	--	--	--	--	--	--	--
SB6-1.5	25 Foot Step-Out at TP3	12/5/2018	1 - 1.5	< 0.0256	--	--	--	--	--	--	--	--	--
SB8-0.5	25 Foot Step-Out at TP3	12/5/2018	0 - 0.5	< 0.0261	--	--	--	--	--	--	--	--	--
SB8-1	25 Foot Step-Out at TP3	12/5/2018	0.5 - 1	< 0.0255	--	--	--	--	--	--	--	--	--
SB8-1.5	25 Foot Step-Out at TP3	12/5/2018	1 - 1.5	< 0.0257	--	--	--	--	--	--	--	--	--
SB-10-0.5	TP7 - Confirmation Sample	1/28/2019	0 - 0.5	< 0.0263	--	--	--	--	--	--	--	--	--
SB-10-1	TP7 - Confirmation Sample	1/28/2019	0.5 - 1	< 0.0256	--	--	--	--	--	--	--	--	--
SB10-1.5	TP7 - Confirmation Sample	12/5/2018	1 - 1.5	< 0.0252	--	--	--	--	--	--	--	--	--
SB11-0.5	25 Foot Step-Out at TP7	12/5/2018	0 - 0.5	< 0.0259	--	--	--	--	--	--	--	--	--

Sample ID	Sample Description	Sample Date	Depth Collected (feet bgs)	Detected Pesticides	Detected Herbicides	Detected Metals							
				Dieldrin	AMPA	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Vanadium	Zinc
				mg/kg									
SB11-1	25 Foot Step-Out at TP7	12/5/2018	0.5 - 1	< 0.0255	--	--	--	--	--	--	--	--	--
SB11-1.5	25 Foot Step-Out at TP7	12/5/2018	1 - 1.5	< 0.0255	--	--	--	--	--	--	--	--	--
SB13-0.5	25 Foot Step-Out at TP7	12/5/2018	0 - 0.5	< 0.0259	--	--	--	--	--	--	--	--	--
SB13-1	25 Foot Step-Out at TP7	12/5/2018	0.5 - 1	< 0.0253	--	--	--	--	--	--	--	--	--
SB13-1.5	25 Foot Step-Out at TP7	12/5/2018	1 - 1.5	< 0.0253	--	--	--	--	--	--	--	--	--
SB15-0.5	25 Foot Step-Out at TP7	12/5/2018	0 - 0.5	< 0.0260	--	--	--	--	--	--	--	--	--
SB15-1	25 Foot Step-Out at TP7	12/5/2018	0.5 - 1	< 0.0255	--	--	--	--	--	--	--	--	--
SB15-1.5	25 Foot Step-Out at TP7	12/5/2018	1 - 1.5	< 0.0253	--	--	--	--	--	--	--	--	--
SB17-0.5	25 Foot Step-Out at TP7	12/5/2018	0 - 0.5	0.0344	--	--	--	--	--	--	--	--	--
SB17-1	25 Foot Step-Out at TP7	12/5/2018	0.5 - 1	< 0.0255	--	--	--	--	--	--	--	--	--
SB17-1.5	25 Foot Step-Out at TP7	12/5/2018	1 - 1.5	< 0.0255	--	--	--	--	--	--	--	--	--
SB-19-0.5	6 Foot Step-Out at TP3	1/28/2019	0 - 0.5	0.0415	--	--	--	--	--	--	--	--	--
SB-19-1	6 Foot Step-Out at TP3	1/28/2019	0.5 - 1	0.0380	--	--	--	--	--	--	--	--	--
SB-19-1.5	6 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0255	--	--	--	--	--	--	--	--	--
SB-20-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	0.0374	--	--	--	--	--	--	--	--	--
SB-20-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	0.0316	--	--	--	--	--	--	--	--	--
SB-20-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0254	--	--	--	--	--	--	--	--	--
SB-21-0.5	6 Foot Step-Out at TP3	1/28/2019	0 - 0.5	0.0269	--	--	--	--	--	--	--	--	--
SB-21-1	6 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0258	--	--	--	--	--	--	--	--	--
SB-21-1.5	6 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0253	--	--	--	--	--	--	--	--	--
SB-22-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	0.0371	--	--	--	--	--	--	--	--	--
SB-22-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0255	--	--	--	--	--	--	--	--	--
SB-22-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0253	--	--	--	--	--	--	--	--	--
SB-23-0.5	6 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0258	--	--	--	--	--	--	--	--	--
SB-23-1	6 Foot Step-Out at TP3	1/28/2019	0.5 - 1	0.0413	--	--	--	--	--	--	--	--	--
SB-23-1.5	6 Foot Step-Out at TP3	1/28/2019	1 - 1.5	0.0270	--	--	--	--	--	--	--	--	--
SB-24-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0272	--	--	--	--	--	--	--	--	--
SB-24-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0260	--	--	--	--	--	--	--	--	--
SB-24-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0262	--	--	--	--	--	--	--	--	--
SB-25-0.5	6 Foot Step-Out at TP3	1/28/2019	0 - 0.5	0.0293	--	--	--	--	--	--	--	--	--
SB-25-1	6 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0256	--	--	--	--	--	--	--	--	--
SB-25-1.5	6 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0259	--	--	--	--	--	--	--	--	--
SB-26-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0298	--	--	--	--	--	--	--	--	--
SB-26-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	0.0401	--	--	--	--	--	--	--	--	--
SB-26-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0255	--	--	--	--	--	--	--	--	--
SB-27-0.5	6 Foot Step-Out at TP7	1/28/2019	0 - 0.5	< 0.0262	--	--	--	--	--	--	--	--	--
SB-27-1	6 Foot Step-Out at TP7	1/28/2019	0.5 - 1	< 0.0261	--	--	--	--	--	--	--	--	--
SB-27-1.5	6 Foot Step-Out at TP7	1/28/2019	1 - 1.5	< 0.0260	--	--	--	--	--	--	--	--	--
SB-28-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0264	--	--	--	--	--	--	--	--	--
SB-28-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0262	--	--	--	--	--	--	--	--	--
SB-28-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0265	--	--	--	--	--	--	--	--	--
SB-29-0.5	6 Foot Step-Out at TP7	1/28/2019	0 - 0.5	< 0.0264	--	--	--	--	--	--	--	--	--

Sample ID	Sample Description	Sample Date	Depth Collected (feet bgs)	Detected Pesticides	Detected Herbicides	Detected Metals							
				Dieldrin	AMPA	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Vanadium	Zinc
				mg/kg									
SB-29-1	6 Foot Step-Out at TP7	1/28/2019	0.5 - 1	< 0.0260	--	--	--	--	--	--	--	--	--
SB-29-1.5	6 Foot Step-Out at TP7	1/28/2019	1 - 1.5	< 0.0259	--	--	--	--	--	--	--	--	--
SB-30-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0262	--	--	--	--	--	--	--	--	--
SB-30-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0266	--	--	--	--	--	--	--	--	--
SB-30-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0268	--	--	--	--	--	--	--	--	--
SB-31-0.5	6 Foot Step-Out at TP7	1/28/2019	0 - 0.5	< 0.0261	--	--	--	--	--	--	--	--	--
SB-31-1	6 Foot Step-Out at TP7	1/28/2019	0.5 - 1	< 0.0264	--	--	--	--	--	--	--	--	--
SB-31-1.5	6 Foot Step-Out at TP7	1/28/2019	1 - 1.5	< 0.0256	--	--	--	--	--	--	--	--	--
SB-32-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0261	--	--	--	--	--	--	--	--	--
SB-32-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0260	--	--	--	--	--	--	--	--	--
SB-32-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0263	--	--	--	--	--	--	--	--	--
SB-33-0.5	6 Foot Step-Out at TP7	1/28/2019	0 - 0.5	< 0.0256	--	--	--	--	--	--	--	--	--
SB-33-1	6 Foot Step-Out at TP7	1/28/2019	0.5 - 1	< 0.0257	--	--	--	--	--	--	--	--	--
SB-33-1.5	6 Foot Step-Out at TP7	1/28/2019	1 - 1.5	< 0.0262	--	--	--	--	--	--	--	--	--
SB-34-0.5	12.5 Foot Step-Out at TP3	1/28/2019	0 - 0.5	< 0.0256	--	--	--	--	--	--	--	--	--
SB-34-1	12.5 Foot Step-Out at TP3	1/28/2019	0.5 - 1	< 0.0259	--	--	--	--	--	--	--	--	--
SB-34-1.5	12.5 Foot Step-Out at TP3	1/28/2019	1 - 1.5	< 0.0260	--	--	--	--	--	--	--	--	--
May 2019 Soil Sampling - PBS Engineering and Environmental Inc.													
SB-1-0.5	TP3 - Confirmation Sample	5/31/2019	0.5	--	0.031	--	--	--	--	--	--	--	--
SB-10-0.5	TP7 - Confirmation Sample	5/31/2019	0.5	--	0.042	--	--	--	--	--	--	--	--
A-S-A-0.5	Wetland A-S	5/31/2019	0.5	**0.14**	--	--	--	--	--	--	--	--	--
A-S-A-1.0	Wetland A-S	5/31/2019	1.0	**0.20**	--	--	--	--	--	--	--	--	--
A-S-B-0.5	Wetland A-S - Central	5/31/2019	0.5	**0.11**	< 0.017	--	--	--	--	--	--	--	--
A-S-B-1.0	Wetland A-S - Central	5/31/2019	1.0	**0.13**	--	--	--	--	--	--	--	--	--
A-S-C-0.5	Wetland A-S - East	5/31/2019	0.5	**0.12**	--	--	--	--	--	--	--	--	--
A-S-C-1.0	Wetland A-S - East	5/31/2019	1.0	**0.12**	--	--	--	--	--	--	--	--	--
B-S-B-0.5	Wetland B-S - Central	5/31/2019	0.5	< 0.0067	0.066	--	--	--	--	--	--	--	--
D-N-B-0.5	Wetland D-N	5/31/2019	0.5	< 0.0067	0.078	--	--	--	--	--	--	--	--

Sample ID	Sample Description	Sample Date	Depth Collected (feet bgs)	Detected Pesticides	Detected Herbicides	Detected Metals							
				Dieldrin	AMPA	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Vanadium	Zinc
				mg/kg									
July 2019 Soil Sampling - PBS Engineering and Environmental Inc.													
A-S-A-1.5	Wetland A-S - West	7/9/2019	1.5	0.0106	--	--	--	--	--	--	--	--	--
A-S-B-1.5	Wetland A-S - Central	7/9/2019	1.5	0.0276	--	--	--	--	--	--	--	--	--
A-S-C-1.5	Wetland A-S - East	7/9/2019	1.5	0.00604	--	--	--	--	--	--	--	--	--
A-S-C-2.0	Wetland A-S - East	7/9/2019	2.0	0.00883	--	--	--	--	--	--	--	--	--
SB35-0.5	Wetland A-S East Boundary	7/9/2019	0.5	**0.0893**	--	--	--	--	--	--	--	--	--
SB35-1.0	Wetland A-S East Boundary	7/9/2019	1.0	**0.0912**	--	--	--	--	--	--	--	--	--
SB35-1.5	Wetland A-S East Boundary	7/9/2019	1.5	0.0330	--	--	--	--	--	--	--	--	--
SB36-0.5	Wetland A-S East Buffer	7/9/2019	0.5	**0.0862**	--	--	--	--	--	--	--	--	--
SB37-0.5	Wetland A-S Southeast Boundary	7/9/2019	0.5	**0.0755**	--	--	--	--	--	--	--	--	--
SB37-1.0	Wetland A-S Southeast Boundary	7/9/2019	1.0	**0.0714**	--	--	--	--	--	--	--	--	--
SB37-1.5	Wetland A-S Southeast Boundary	7/9/2019	1.5	0.0476	--	--	--	--	--	--	--	--	--
SB38-0.5	Wetland A-S Southeast Buffer	7/9/2019	0.5	0.0516	--	--	--	--	--	--	--	--	--
SB39-0.5	Wetland A-S South Boundary	7/9/2019	0.5	**0.0630**	--	--	--	--	--	--	--	--	--
SB39-1.0	Wetland A-S South Boundary	7/9/2019	1.0	0.0280	--	--	--	--	--	--	--	--	--
SB40-0.5	Wetland A-S South Buffer	7/9/2019	0.5	**0.0687**	--	--	--	--	--	--	--	--	--
SB41-0.5	Wetland A-S Southwest Buffer	7/9/2019	0.5	**0.1070**	--	--	--	--	--	--	--	--	--
SB41-1.0	Wetland A-S Southwest Buffer	7/9/2019	1.0	**0.0924**	--	--	--	--	--	--	--	--	--
SB41-1.5	Wetland A-S Southwest Buffer	7/9/2019	1.5	**0.0669**	--	--	--	--	--	--	--	--	--
SB42-0.5	Wetland A-S Southwest Buffer Edge	7/9/2019	0.5	**0.0958**	--	--	--	--	--	--	--	--	--
SB43-0.5	Wetland A-S West Boundary	7/9/2019	0.5	**0.1250**	--	--	--	--	--	--	--	--	--
SB43-1.0	Wetland A-S West Boundary	7/9/2019	1.0	**0.1080**	--	--	--	--	--	--	--	--	--
SB43-1.5	Wetland A-S West Boundary	7/9/2019	1.5	0.00871	--	--	--	--	--	--	--	--	--
SB44-0.5	Wetland A-S West Buffer	7/9/2019	0.5	**0.0700**	--	--	--	--	--	--	--	--	--
SB45-0.5	Wetland A-S Northwest Boundary	7/9/2019	0.5	**0.0660**	--	--	--	--	--	--	--	--	--
SB45-1.0	Wetland A-S Northwest Boundary	7/9/2019	1.0	0.0435	--	--	--	--	--	--	--	--	--
SB46-0.5	Wetland A-S Northwest Buffer	7/9/2019	0.5	**0.0859**	--	--	--	--	--	--	--	--	--
SB47-0.5	Wetland A-S North Boundary	7/9/2019	0.5	**0.0704**	--	--	--	--	--	--	--	--	--
SB47-1.0	Wetland A-S North Boundary	7/9/2019	1.0	0.0386	--	--	--	--	--	--	--	--	--
SB48-0.5	Wetland A-S North Buffer	7/9/2019	0.5	**0.114**	--	--	--	--	--	--	--	--	--
SB49-0.5	Wetland A-S Northeast Boundary	7/9/2019	0.5	**0.0734**	--	--	--	--	--	--	--	--	--
SB49-1.0	Wetland A-S Northeast Boundary	7/9/2019	1.0	0.0219	--	--	--	--	--	--	--	--	--
SB50-0.5	Wetland A-S Northeast Buffer	7/9/2019	0.5	**0.0868**	--	--	--	--	--	--	--	--	--
Washington MTCA Method A Soil Limits for Unrestricted Land Use				NS	NS	20	NS	2,000	NS	NS	250	NS	NS
Washington MTCA Method B Soil Limits for Unrestricted Land Use (Non Cancer)				**4.0**	NS	Screening Level not Applicable for this Compound							
Washington MTCA Method B Soil Limits for Unrestricted Land Use (Cancer)				**0.0625**	NS	Screening Level not Applicable for this Compound							
Washington MTCA Soil Limits Protective of Vadose Groundwater				**0.00280**		**2.92**	1,650	**18.4**	NS	284	3,000	1,600	5,970

See laboratory report for full list of analytes.

Bold text, if present, indicates an exceedance of one or more of the cleanup levels.

mg/kg: milligram per kilogram

bgs: below ground surface

AMPA: aminophosphonic acid

MTCA: Model Toxics Control Act

<: not detected above the laboratory reporting limit

--: analyte not tested

NS: screening level not set for this compound

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULS
2001 NE Lockwood Creek Road
La Center, Washington

Sample ID	Sample Description	Sample Date	Chemicals of Concern			
			Dieldrin	Glyphosate	AMPA	All Other Herbicides
			µg/L			
May Groundwater Sampling - PBS Engineering and Environmental Inc.						
PZ-1-GW	Piezometer 1	5/31/2019	< 0.006	< 10	< 20	ND
PZ-2-GW	Piezometer 2	5/31/2019	< 0.006	< 10	< 20	ND
Washington MTCA Method B Groundwater Limits for Unrestricted Land Use (Non Cancer)			0.8	1600	NS	Varies
Washington MTCA Method B Groundwater Limits for Unrestricted Land Use (Cancer)			0.00547	NS	NS	Varies

See laboratory report for full list of analytes.

Bold text, if present, indicates an exceedance of one or more of the cleanup levels.

µg/L: micrograms per liter

AMPA: aminophosphonic acid

MTCA: Model Toxics Control Act

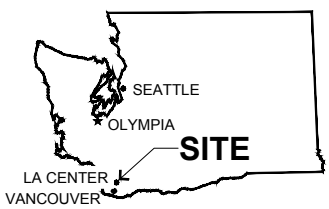
<: not detected above the laboratory reporting limit

--: analyte not tested

NS: screening level not set for this compound

FIGURES

SOURCE: © 2019 GOOGLE EARTH PRO



WASHINGTON

SCALE: 1" = 200'

0 100' 200' 400'

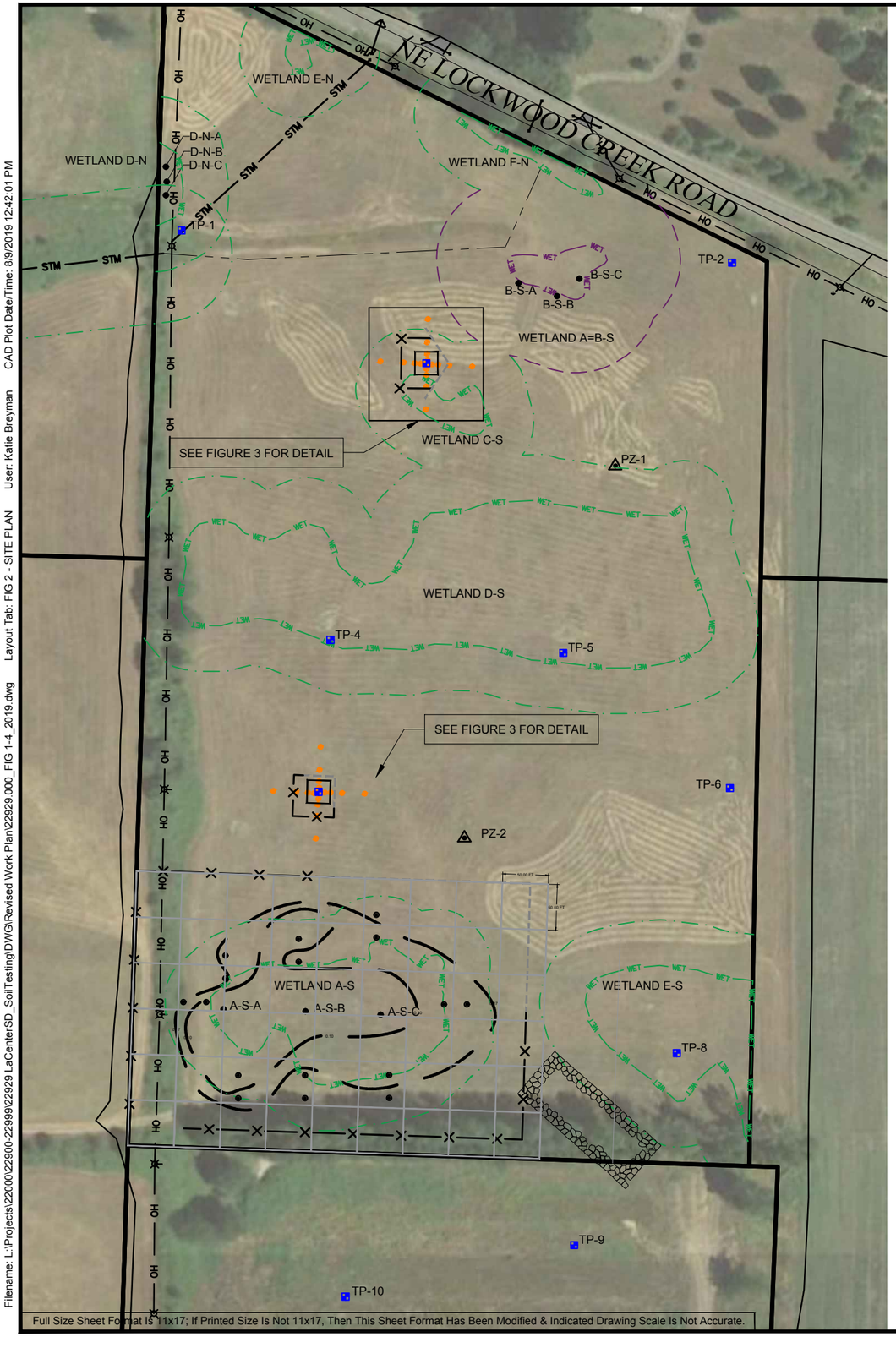
PREPARED FOR: LA CENTER SCHOOL DISTRICT

VICINITY MAP

2001 NE LOCKWOOD CREEK ROAD
LA CENTER, WASHINGTON

AUG 2019
22929.000

FIGURE
1



Full Size Sheet Format Is 11x17; If Printed Size Is Not 11x17, Then This Sheet Format Has Been Modified & Indicated Drawing Scale Is Not Accurate.

LEGEND

- A-S-A — WETLAND AREA SOIL SAMPLE NAME AND LOCATION (PBS MAY 2019)
- SB-1 — SOIL BORING NUMBER AND LOCATION (PBS FEB 2019)
- TP-1 — TEST PIT NUMBER AND LOCATION (COLUMBIA WEST SEP 2018)
- PZ-1 — SOIL BORING/PIEZOMETER NUMBER AND LOCATION (COLUMBIA WEST, SEP 2018)
- CATEGORY IV WETLAND BOUNDARY
- 50 FT WETLAND BUFFER BOUNDARY
- CATEGORY III WETLAND BOUNDARY
- 80 FT WETLAND BOUNDARY
- 25'x25' DIELDRIN CONTAMINATED SOIL RESTORATION AREA
- STRAW WATTLE TO REDIRECT RAINWATER
- PROPERTY BOUNDARY
- OVERHEAD POWER LINE
- SILT FENCE
- DITCH
- STREAM
- CONSTRUCTION ENTRANCE

Scale 1" = 140'

0' 70' 140' 280'

PREPARED FOR: LA CENTER SCHOOL DISTRICT

PBS Engineering and Environmental Inc.
314 W 15th Street, Ste. 601
Vancouver, WA 98660
360.695.3488
pbsusa.com

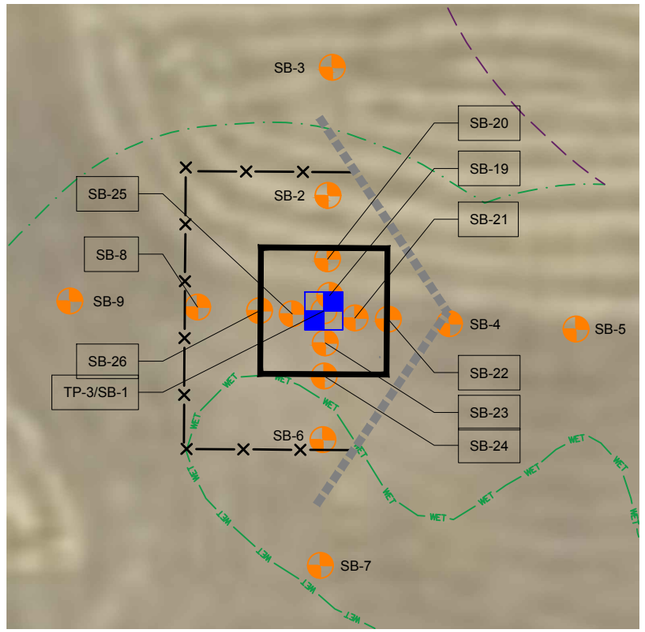
SITE PLAN

LA CENTER MIDDLE SCHOOL

2001 NORTHEAST LOCKWOOD CREEK ROAD, LA CENTER, WASHINGTON

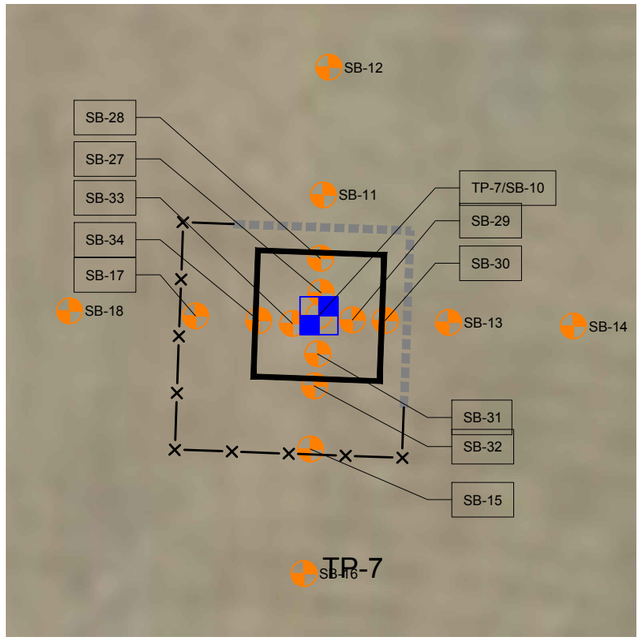
PROJECT
22929.000
DATE
AUG 2019
SHEET ID
2

Filename: L:\Projects\22000\22900-22999\22929 LaCenterSD_SoilTesting\DWG\Revised Work Plan\22929.000_FIG 1-4_2019.dwg Layout Tab: FIG 2 - SITE PLAN User: Katie Breyman CAD Plot Date/Time: 8/9/2019 12:42:01 PM



TP-3 SOIL EXCAVATION DETAIL

SCALE: 1" = 30'



TP-7 SOIL EXCAVATION DETAIL

SCALE: 1" = 30'

PROJECT NOTES

1. REMOVE SOIL WITHIN INDICATED REMEDIATION AREAS FROM GROUND SURFACE TO 18 INCHES BELOW GROUND SURFACE. ESTIMATED VOLUME OF SOIL FOR REMOVAL IS 35 CUBIC YARDS FOR EACH EXCAVATION AREA.
2. SOIL AWAITING OFF HAUL AND DISPOSAL SHALL BE STOCKPILED ON-SITE ON PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 6 MILS. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING, AND CONTRACTOR SHALL EMPLOY BEST MANAGEMENT PRACTICES TO AVOID CONTACT WITH STORM OR SURFACE WATER.
3. ENVIRONMENTAL CONSULTANT WILL COLLECT CONFIRMATION SAMPLES FROM EXTENTS OF EXCAVATION. TEST RESULTS WILL REQUIRE A MINIMUM OF 5 CALENDAR DAYS DURING WHICH THE EXCAVATION SHALL REMAIN OPEN AND BACKFILLING IS NOT ALLOWED.
4. SOIL REMOVED FROM REMEDIATION AREA SHALL BE PROFILED AND/OR MANIFESTED FOR DISPOSAL BASED ON ANALYTICAL RESULTS PROVIDED BY ENVIRONMENTAL CONSULTANT IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
5. INSTALL SILT FENCE PER 2014 SWMMPP BMP C233 15-FT DOWNSTREAM OF EXCAVATION AND CONNECT TO END OF STRAW WATTLE PER 2014 SWMMPP BMP C235 TO REDIRECT RAIN WATER AWAY FROM EXCAVATION. PLACE A MINIMUM OF 5-FT FROM EXCAVATION AND POSITION SO SHEET RUNOFF IS DIRECTED AWAY
6. STRAW WATTLE PER 2014 SWMMWW BMP C235 TO REDIRECT RAIN WATER AWAY FROM EXCAVATION. PLACE A MINIMUM OF 5-FT FROM EXCAVATION AND POSITION SO SHEET RUNOFF IS DIRECTED AWAY

GENERAL NOTES

1. A COPY OF THE APPROVED PLAN MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
2. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE OWNER.
3. PAVED SURFACES INCLUDING ROADWAYS, SIDEWALKS, AND CURBS THAT ARE DAMAGED BY NEW CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. NOTIFY CLIENT OF UNFORESEEN UTILITY IMPEDIMENTS.
5. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL CASTINGS AND UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATOR SERVICE (1-800-424-5555). AT LEAST 2 FULL BUSINESS DAYS PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE NATURAL OR PUBLIC DRAINAGE SYSTEM. AS CONSTRUCTION PROGRESSES AND UNEXPECTED (SEASONAL) CONDITIONS DICTATE, MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL OF THE PROJECT. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY THEIR ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES THAT MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES.
7. THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING.
8. ANY DAMAGE TO EXISTING FACILITIES DURING COURSE OF WORK SHALL BE RESTORED OR REPLACED AT CONTRACTOR'S EXPENSE.
9. PERFORM ALL DIELDRIN CONTAMINATED SOIL REMEDIATION IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN (PBS, 2019).

LEGEND

- SB-1 SOIL BORING NUMBER AND LOCATION (PBS FEB 2019)
- TP-1 TEST PIT NUMBER AND LOCATION (COLUMBIA WEST SEP 2018)
- WET CATEGORY IV WETLAND BOUNDARY
- 50 FT WETLAND BUFFER BOUNDARY
- 80 FT WETLAND BOUNDARY
- 25'x25' DIELDRIN CONTAMINATED SOIL RESTORATION AREA
- STRAW WATTLE
- SILT FENCE

PREPARED FOR: LA CENTER SCHOOL DISTRICT

PBS Engineering and Environmental Inc.
314 W 15th Street, Ste. 601
Vancouver, WA 98660
360.695.3488
pbsusa.com

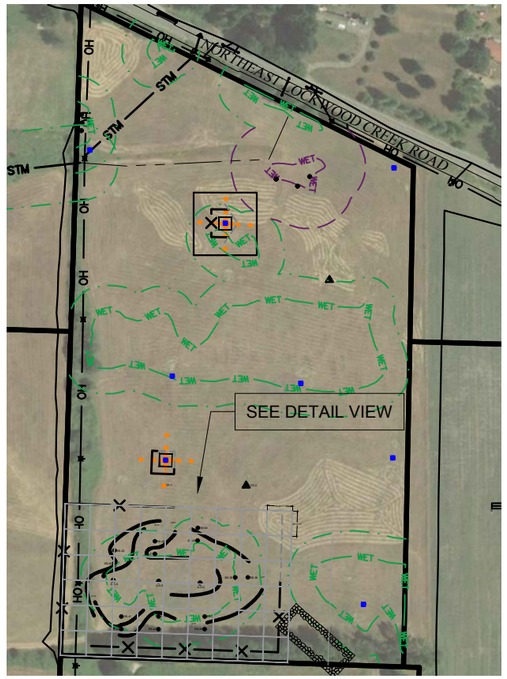
PBS

TP-3 AND TP-7 SOIL EXCAVATION DETAIL

LA CENTER MIDDLE SCHOOL

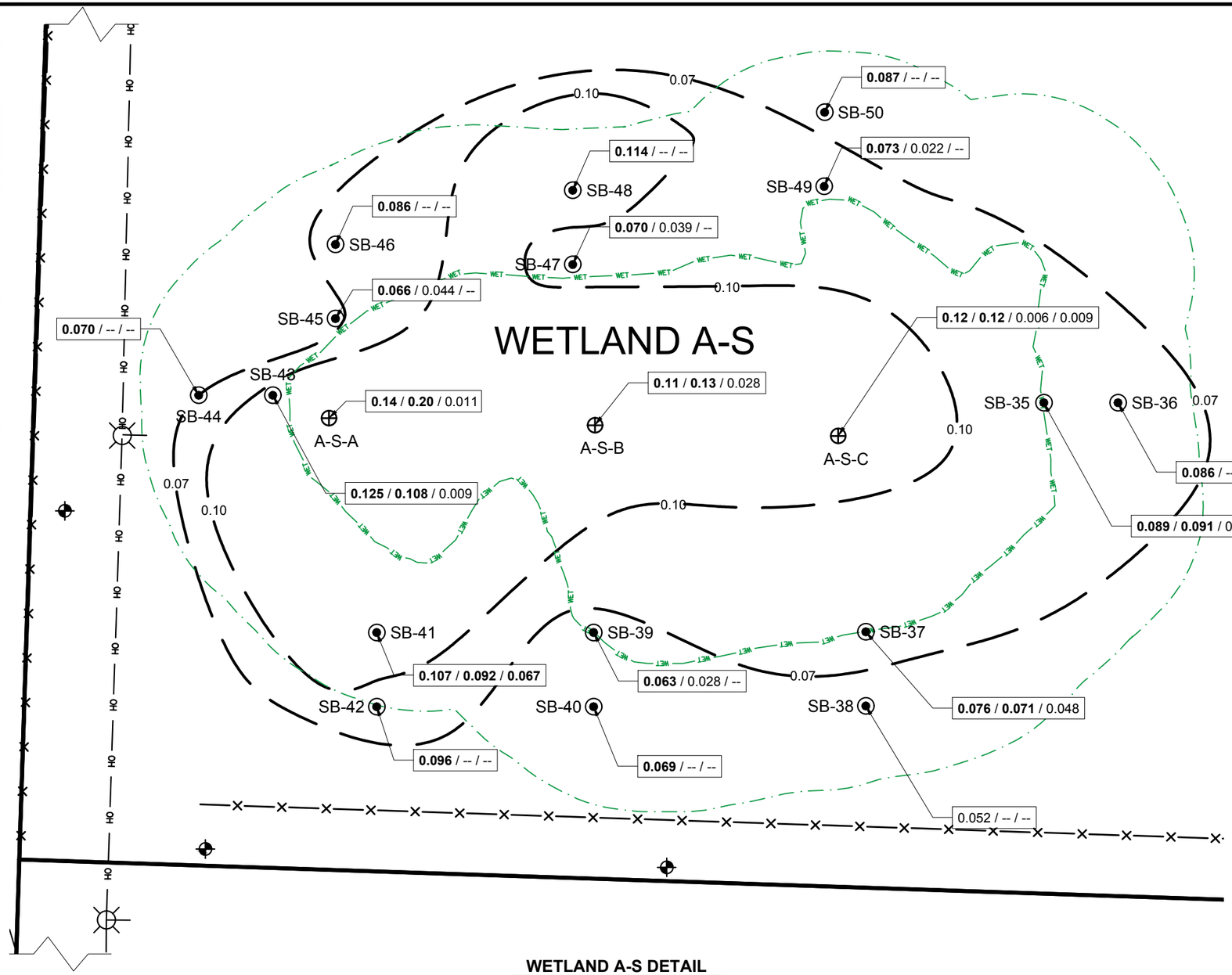
2001 NORTHEAST LOCKWOOD CREEK ROAD, LA CENTER, WASHINGTON

PROJECT
22929.000
DATE
AUG 2019
SHEET ID
3



SITE PLAN

SCALE: 1" = 300'



WETLAND A-S DETAIL

SCALE: 1" = 40'

LEGEND

- A-S-A — WETLAND AREA SOIL SAMPLE NAME AND LOCATION (PBS MAY 2019)
- SB-01 — PROPOSED SOIL BORING LOCATION
- MONITORING WELL LOCATION
- 0.12 / 0.12 / 0.006 / 0.009 — DIELDRIN IN SOIL (mg/Kg) - 2019 AT 6"/12"/18"/24" BGS
- -- / -- / -- — NOT ANALYZED AT INDICATED DEPTH
- 50 FT WETLAND BUFFER BOUNDARY
- PROPERTY BOUNDARY
- OH — OVERHEAD POWER LINE
- 0.07 — 0.07 mg/Kg DIELDRIN INFERRED ISOCONCENTRATION CONTOUR
- 0.10 — 0.10 mg/Kg DIELDRIN INFERRED ISOCONCENTRATION CONTOUR
- WET — WETLAND BOUNDARY

PREPARED FOR: LA CENTER SCHOOL DISTRICT

PBS Engineering and Environmental Inc.
314 W 15th Street, Ste. 601
Vancouver, WA 98660
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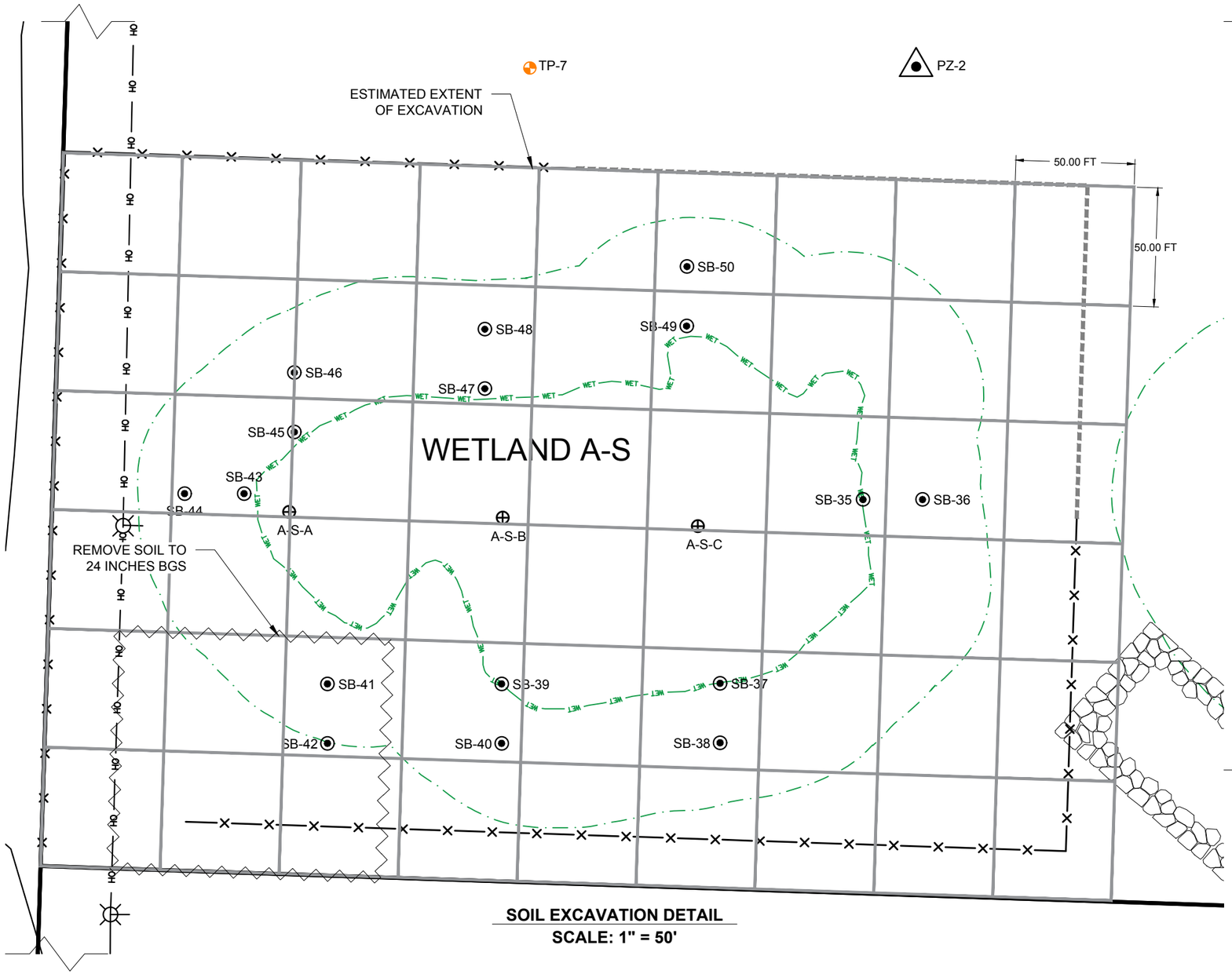
A-S WETLAND SOIL DIELDRIN CONCENTRATIONS
LA CENTER MIDDLE SCHOOL
2001 NORTHEAST LOCKWOOD CREEK ROAD, LA CENTER, WASHINGTON

PROJECT
22929.000
DATE
AUG 2019
SHEET ID
4A



SOIL EXCAVATION DETAIL
SCALE: 1" = 50'

LEGEND

- ⊕ A-S-A — WETLAND AREA SOIL SAMPLE NAME AND LOCATION (PBS MAY 2019)
- ⊙ SB-01 — SOIL BORING LOCATION (PBS JULY 2019)
- WET — WETLAND BOUNDARY
- SB-1 — SOIL BORING NUMBER AND LOCATION (PBS JULY 2019)
- 50 FT WETLAND BUFFER BOUNDARY
- PROPERTY BOUNDARY
- OH — OVERHEAD POWER LINE
- PZ-1 — SOIL BORING/PIEZOMETER NUMBER AND LOCATION (COLUMBIA WEST, SEP 2018)
- SILT FENCE
- STRAW WATTLE

GENERAL NOTES

1. A COPY OF THE APPROVED PLAN MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
2. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE OWNER.
3. PAVED SURFACES INCLUDING ROADWAYS, SIDEWALKS, AND CURBS THAT ARE DAMAGED BY NEW CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. NOTIFY CLIENT OF UNFORESEEN UTILITY IMPEDIMENTS.
5. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL CASTINGS AND UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATOR SERVICE (1-800-424-5555). AT LEAST 2 FULL BUSINESS DAYS PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE NATURAL OR PUBLIC DRAINAGE SYSTEM. AS CONSTRUCTION PROGRESSES AND UNEXPECTED (SEASONAL) CONDITIONS DICTATE, MORE SILTATION CONTROL FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL OF THE PROJECT. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY THEIR ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES THAT MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES
7. THE CONTRACTOR SHALL KEEP OFF-SITE STREETS CLEAN AT ALL TIMES BY SWEEPING.
8. ANY DAMAGE TO EXISTING FACILITIES DURING COURSE OF WORK SHALL BE RESTORED OR REPLACED AT CONTRACTOR'S EXPENSE.
9. PERFORM ALL DIELDRIN CONTAMINATED SOIL REMEDIATION IN ACCORDANCE WITH THE REMEDIAL ACTION WORK PLAN (PBS, 2019).

PROJECT NOTES

1. REMOVE SOIL WITHIN INDICATED REMEDIATION AREAS FROM GROUND SURFACE TO 18 INCHES BELOW GROUND SURFACE OR 24 INCHES BELOW GROUND SURFACE WHERE INDICATED. ESTIMATED VOLUME OF SOIL FOR REMOVAL IS 7,425 CUBIC YARDS.
2. SOIL AWAITING OFF HAUL AND DISPOSAL SHALL BE STOCKPILED ON-SITE ON PLASTIC SHEETING WITH A MINIMUM THICKNESS OF 6 MILS. STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING, AND CONTRACTOR SHALL EMPLOY BEST MANAGEMENT PRACTICES TO AVOID CONTACT WITH STORM OR SURFACE WATER.
3. ENVIRONMENTAL CONSULTANT WILL COLLECT CONFIRMATION SAMPLES FROM EXTENTS OF EXCAVATION. TEST RESULTS WILL REQUIRE A MINIMUM OF 5 CALENDAR DAYS DURING WHICH THE EXCAVATION SHALL REMAIN OPEN AND BACKFILLING IS NOT ALLOWED.
4. SOIL REMOVED FROM REMEDIATION AREA SHALL BE PROFILED AND/OR MANIFESTED FOR DISPOSAL BASED ON ANALYTICAL RESULTS PROVIDED BY ENVIRONMENTAL CONSULTANT IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
5. SILT FENCE PER 2014 SWMMWW BMP C233 TO BE INSTALLED ALONG PROPERTY LINE AND TREE DRIP LINE. CONNECT TO END OF STRAW WATTLE. PROTECT EXISTING TREES.
6. STRAW WATTLE PER 2014 SWMMWW BMP C235 TO REDIRECT RAIN WATER AWAY FROM EXCAVATION.

PREPARED FOR: LA CENTER SCHOOL DISTRICT

PBS Engineering and Environmental Inc.
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A-S WETLAND SOIL EXCAVATION DETAIL
LA CENTER MIDDLE SCHOOL
2001 NORTHEAST LOCKWOOD CREEK ROAD, LA CENTER, WASHINGTON

PROJECT
22929.000
DATE
JUL 2019
SHEET ID
4B

APPENDIX A

ANALYTICAL REPORTS

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Monday, July 15, 2019

Bret Waldron
PBS Engineering and Environmental
4412 SW Corbett Ave
Portland, OR 97239

RE: A9G0227 - La Center Middle School - La Center Middle School

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9G0227, which was received by the laboratory on 7/9/2019 at 6:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.6 degC	Cooler #2	2.1 degC
Cooler #3	1.8 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-S-C-1.5	A9G0227-01	Soil	07/09/19 08:30	07/09/19 18:30
SB37-0.5	A9G0227-02	Soil	07/09/19 10:40	07/09/19 18:30
SB37-1	A9G0227-03	Soil	07/09/19 10:45	07/09/19 18:30
SB39-0.5	A9G0227-04	Soil	07/09/19 12:15	07/09/19 18:30
SB39-1	A9G0227-05	Soil	07/09/19 12:20	07/09/19 18:30
SB41-0.5	A9G0227-06	Soil	07/09/19 13:05	07/09/19 18:30
SB41-1	A9G0227-07	Soil	07/09/19 13:15	07/09/19 18:30
SB43-0.5	A9G0227-08	Soil	07/09/19 13:15	07/09/19 18:30
SB43-1	A9G0227-09	Soil	07/09/19 13:20	07/09/19 18:30
SB45-0.5	A9G0227-10	Soil	07/09/19 13:55	07/09/19 18:30
SB45-1	A9G0227-11	Soil	07/09/19 14:10	07/09/19 18:30
SB47-0.5	A9G0227-12	Soil	07/09/19 14:42	07/09/19 18:30
SB47-1	A9G0227-13	Soil	07/09/19 14:50	07/09/19 18:30
SB49-0.5	A9G0227-14	Soil	07/09/19 15:25	07/09/19 18:30
SB49-1	A9G0227-15	Soil	07/09/19 15:30	07/09/19 18:30
A-S-B-1.5	A9G0227-16	Soil	07/09/19 08:50	07/09/19 18:30
A-S-A-1.5	A9G0227-17	Soil	07/09/19 09:05	07/09/19 18:30
SB35-0.5	A9G0227-18	Soil	07/09/19 09:30	07/09/19 18:30
SB35-1	A9G0227-19	Soil	07/09/19 09:35	07/09/19 18:30

Apex Laboratories

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A-S-C-1.5 (A9G0227-01RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.00604**	---	0.00227	mg/kg dry	1	07/11/19 18:06	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*63 %*	*Limits: 42-129 %*	*1*	*07/11/19 18:06*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*98 %*	*55-130 %*	*1*	*07/11/19 18:06*	*EPA 8081B*	
SB37-0.5 (A9G0227-02RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0755**	---	0.00224	mg/kg dry	1	07/11/19 18:24	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*58 %*	*Limits: 42-129 %*	*1*	*07/11/19 18:24*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*94 %*	*55-130 %*	*1*	*07/11/19 18:24*	*EPA 8081B*	
SB37-1 (A9G0227-03RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0714**	---	0.00223	mg/kg dry	1	07/11/19 18:41	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*54 %*	*Limits: 42-129 %*	*1*	*07/11/19 18:41*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*89 %*	*55-130 %*	*1*	*07/11/19 18:41*	*EPA 8081B*	
SB39-0.5 (A9G0227-04RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0630**	---	0.00225	mg/kg dry	1	07/11/19 19:34	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*48 %*	*Limits: 42-129 %*	*1*	*07/11/19 19:34*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*89 %*	*55-130 %*	*1*	*07/11/19 19:34*	*EPA 8081B*	
SB39-1 (A9G0227-05RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0280**	---	0.00231	mg/kg dry	1	07/11/19 19:51	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*54 %*	*Limits: 42-129 %*	*1*	*07/11/19 19:51*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*87 %*	*55-130 %*	*1*	*07/11/19 19:51*	*EPA 8081B*	
SB41-0.5 (A9G0227-06RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.107**	---	0.00215	mg/kg dry	1	07/11/19 20:09	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*79 %*	*Limits: 42-129 %*	*1*	*07/11/19 20:09*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*88 %*	*55-130 %*	*1*	*07/11/19 20:09*	*EPA 8081B*	
SB41-1 (A9G0227-07RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0924**	---	0.00216	mg/kg dry	1	07/11/19 20:26	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*54 %*	*Limits: 42-129 %*	*1*	*07/11/19 20:26*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*89 %*	*55-130 %*	*1*	*07/11/19 20:26*	*EPA 8081B*	
SB43-0.5 (A9G0227-08RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.125**	---	0.00225	mg/kg dry	1	07/11/19 20:44	EPA 8081B	

Apex Laboratories

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB43-0.5 (A9G0227-08RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 71 %*	*Limits: 42-129 %*	*1*	*07/11/19 20:44*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*98 %*	*55-130 %*	*1*	*07/11/19 20:44*	*EPA 8081B*	
SB43-1 (A9G0227-09RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.108**	---	0.00226	mg/kg dry	1	07/11/19 21:01	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 68 %*	*Limits: 42-129 %*	*1*	*07/11/19 21:01*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*92 %*	*55-130 %*	*1*	*07/11/19 21:01*	*EPA 8081B*	
SB45-0.5 (A9G0227-10RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0660**	---	0.00222	mg/kg dry	1	07/12/19 14:28	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 56 %*	*Limits: 42-129 %*	*1*	*07/12/19 14:28*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*87 %*	*55-130 %*	*1*	*07/12/19 14:28*	*EPA 8081B*	
SB45-1 (A9G0227-11RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0435**	---	0.00224	mg/kg dry	1	07/12/19 14:46	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 46 %*	*Limits: 42-129 %*	*1*	*07/12/19 14:46*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*70 %*	*55-130 %*	*1*	*07/12/19 14:46*	*EPA 8081B*	
SB47-0.5 (A9G0227-12RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0704**	---	0.00225	mg/kg dry	1	07/12/19 15:03	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 48 %*	*Limits: 42-129 %*	*1*	*07/12/19 15:03*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*77 %*	*55-130 %*	*1*	*07/12/19 15:03*	*EPA 8081B*	
SB47-1 (A9G0227-13RE1)				**Matrix: Soil**		**Batch: 9070787**		**C-05**
Dieldrin	**0.0386**	---	0.00229	mg/kg dry	1	07/12/19 15:21	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 60 %*	*Limits: 42-129 %*	*1*	*07/12/19 15:21*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*91 %*	*55-130 %*	*1*	*07/12/19 15:21*	*EPA 8081B*	
SB49-0.5 (A9G0227-14RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0734**	---	0.00226	mg/kg dry	1	07/12/19 13:07	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 54 %*	*Limits: 42-129 %*	*1*	*07/12/19 13:07*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*78 %*	*55-130 %*	*1*	*07/12/19 13:07*	*EPA 8081B*	
SB49-1 (A9G0227-15RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0219**	---	0.00232	mg/kg dry	1	07/12/19 13:42	EPA 8081B	

Apex Laboratories

Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB49-1 (A9G0227-15RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*61 %*	*Limits: 42-129 %*	*1*	*07/12/19 13:42*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*75 %*	*55-130 %*	*1*	*07/12/19 13:42*	*EPA 8081B*	
A-S-B-1.5 (A9G0227-16RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0276**	---	0.00222	mg/kg dry	1	07/12/19 13:59	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*56 %*	*Limits: 42-129 %*	*1*	*07/12/19 13:59*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*74 %*	*55-130 %*	*1*	*07/12/19 13:59*	*EPA 8081B*	
A-S-A-1.5 (A9G0227-17RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0106**	---	0.00225	mg/kg dry	1	07/12/19 14:17	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*55 %*	*Limits: 42-129 %*	*1*	*07/12/19 14:17*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*71 %*	*55-130 %*	*1*	*07/12/19 14:17*	*EPA 8081B*	
SB35-0.5 (A9G0227-18RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0893**	---	0.00227	mg/kg dry	1	07/12/19 13:35	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*82 %*	*Limits: 42-129 %*	*1*	*07/12/19 13:35*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*89 %*	*55-130 %*	*1*	*07/12/19 13:35*	*EPA 8081B*	
SB35-1 (A9G0227-19RE1)				**Matrix: Soil**		**Batch: 9070794**		**C-05**
Dieldrin	**0.0912**	---	0.00227	mg/kg dry	1	07/12/19 13:53	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery:*	*78 %*	*Limits: 42-129 %*	*1*	*07/12/19 13:53*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*89 %*	*55-130 %*	*1*	*07/12/19 13:53*	*EPA 8081B*	

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A-S-C-1.5 (A9G0227-01)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**85.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB37-0.5 (A9G0227-02)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.5**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB37-1 (A9G0227-03)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**88.0**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB39-0.5 (A9G0227-04)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB39-1 (A9G0227-05)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**85.2**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB41-0.5 (A9G0227-06)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**89.1**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB41-1 (A9G0227-07)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**88.8**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB43-0.5 (A9G0227-08)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**88.2**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB43-1 (A9G0227-09)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.9**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB45-0.5 (A9G0227-10)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.6**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB45-1 (A9G0227-11)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.2**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB47-0.5 (A9G0227-12)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.5**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB47-1 (A9G0227-13)				**Matrix: Soil**		**Batch: 9070765**		

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB47-1 (A9G0227-13)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**85.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB49-0.5 (A9G0227-14)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB49-1 (A9G0227-15)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**85.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
A-S-B-1.5 (A9G0227-16)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**87.1**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
A-S-A-1.5 (A9G0227-17)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**86.6**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB35-0.5 (A9G0227-18)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**86.4**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	
SB35-1 (A9G0227-19)				**Matrix: Soil**		**Batch: 9070765**		
% Solids	**86.5**	---	1.00	% by Weight	1	07/11/19 08:25	EPA 8000C	

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Lisa A Domenighini

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070787 - EPA 3546/3640A (GPC)							**Soil**					
Blank (9070787-BLK1)		Prepared: 07/10/19 07:05	Analyzed: 07/11/19 14:18									**C-05**
EPA 8081B												
Aldrin	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
beta-BHC	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
delta-BHC	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
cis-Chlordane	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
trans-Chlordane	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
4,4'-DDD	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
4,4'-DDE	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
4,4'-DDT	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Dieldrin	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endosulfan I	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endosulfan II	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endosulfan sulfate	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endrin	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endrin Aldehyde	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Endrin ketone	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Heptachlor	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Methoxychlor	ND	---	0.00545	mg/kg wet	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	---	0.0545	mg/kg wet	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	---	0.0545	mg/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 58 %*	*Limits: 42-129 %*					*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*87 %*	*55-130 %*					*"*			
LCS (9070787-BS1)		Prepared: 07/10/19 07:05	Analyzed: 07/11/19 14:35									**C-05**
EPA 8081B												
Aldrin	0.0423	---	0.00200	mg/kg wet	1	0.0500	---	85	45 - 136%	---	---	
alpha-BHC	0.0420	---	0.00200	mg/kg wet	1	0.0500	---	84	45 - 137%	---	---	
beta-BHC	0.0426	---	0.00200	mg/kg wet	1	0.0500	---	85	50 - 136%	---	---	
delta-BHC	0.0422	---	0.00200	mg/kg wet	1	0.0500	---	84	47 - 139%	---	---	
gamma-BHC (Lindane)	0.0409	---	0.00200	mg/kg wet	1	0.0500	---	82	49 - 135%	---	---	
cis-Chlordane	0.0473	---	0.00200	mg/kg wet	1	0.0500	---	95	54 - 133%	---	---	

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EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070787 - EPA 3546/3640A (GPC)							**Soil**					
LCS (9070787-BS1)		Prepared: 07/10/19 07:05		Analyzed: 07/11/19 14:35								**C-05**
trans-Chlordane	0.0492	---	0.00200	mg/kg wet	1	0.0500	---	98	53 - 135%	---	---	
4,4'-DDD	0.0540	---	0.00200	mg/kg wet	1	0.0500	---	108	56 - 139%	---	---	
4,4'-DDE	0.0503	---	0.00200	mg/kg wet	1	0.0500	---	101	56 - 134%	---	---	
4,4'-DDT	0.0488	---	0.00200	mg/kg wet	1	0.0500	---	98	50 - 141%	---	---	
Dieldrin	0.0502	---	0.00200	mg/kg wet	1	0.0500	---	100	56 - 136%	---	---	
Endosulfan I	0.0480	---	0.00200	mg/kg wet	1	0.0500	---	96	52 - 132%	---	---	
Endosulfan II	0.0502	---	0.00200	mg/kg wet	1	0.0500	---	100	53 - 134%	---	---	
Endosulfan sulfate	0.0439	---	0.00200	mg/kg wet	1	0.0500	---	88	55 - 136%	---	---	
Endrin	0.0536	---	0.00200	mg/kg wet	1	0.0500	---	107	56 - 140%	---	---	
Endrin Aldehyde	0.0482	---	0.00200	mg/kg wet	1	0.0500	---	96	35 - 137%	---	---	
Endrin ketone	0.0480	---	0.00200	mg/kg wet	1	0.0500	---	96	55 - 136%	---	---	
Heptachlor	0.0410	---	0.00200	mg/kg wet	1	0.0500	---	82	47 - 136%	---	---	
Heptachlor epoxide	0.0471	---	0.00200	mg/kg wet	1	0.0500	---	94	52 - 136%	---	---	
Methoxychlor	0.0538	---	0.00600	mg/kg wet	1	0.0500	---	108	52 - 143%	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 73 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*96 %*		*55-130 %*		*"*					

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EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070794 - EPA 3546/3640A (GPC)							**Soil**					
Blank (9070794-BLK2)		Prepared: 07/10/19 09:18		Analyzed: 07/12/19 15:38								**C-05**
EPA 8081B												
Dieldrin	ND	---	0.00182	mg/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 53 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*68 %*		*55-130 %*		*"*					
LCS (9070794-BS1)		Prepared: 07/10/19 09:18		Analyzed: 07/12/19 12:49								**C-05**
EPA 8081B												
Dieldrin	0.0397	---	0.00200	mg/kg wet	1	0.0500	---	79	56 - 136%	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 62 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*79 %*		*55-130 %*		*"*					
Duplicate (9070794-DUP1)		Prepared: 07/10/19 09:18		Analyzed: 07/12/19 13:24								**C-05**
QC Source Sample: SB49-0.5 (A9G0227-14RE1)												
EPA 8081B												
Dieldrin	**0.0831**	---	0.00225	mg/kg dry	1	---	0.0734	---	---	12	30%	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 63 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*85 %*		*55-130 %*		*"*					
Matrix Spike (9070794-MS1)		Prepared: 07/10/19 09:18		Analyzed: 07/12/19 14:10								**C-05**
QC Source Sample: SB35-1 (A9G0227-19RE1)												
EPA 8081B												
Dieldrin	0.133	---	0.00228	mg/kg dry	1	0.0569	0.0912	74	56 - 136%	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 74 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*79 %*		*55-130 %*		*"*					

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070765 - Total Solids (Dry Weight)								Soil				
Duplicate (9070765-DUP2)		Prepared: 07/10/19 09:10		Analyzed: 07/11/19 08:25								
QC Source Sample: SB41-1 (A9G0227-07)												
EPA 8000C												
% Solids	**88.9**	---	1.00	% by Weight	1	---	88.8	---	---	0.06	10%	
Duplicate (9070765-DUP3)		Prepared: 07/10/19 09:10		Analyzed: 07/11/19 08:25								
QC Source Sample: SB35-1 (A9G0227-19)												
EPA 8000C												
% Solids	**86.5**	---	1.00	% by Weight	1	---	86.5	---	---	0.007	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9070787							
A9G0227-01RE1	Soil	EPA 8081B	07/09/19 08:30	07/10/19 13:31	10.33g/10mL	10g/5mL	1.94
A9G0227-02RE1	Soil	EPA 8081B	07/09/19 10:40	07/10/19 13:31	10.19g/10mL	10g/5mL	1.96
A9G0227-03RE1	Soil	EPA 8081B	07/09/19 10:45	07/10/19 13:31	10.21g/10mL	10g/5mL	1.96
A9G0227-04RE1	Soil	EPA 8081B	07/09/19 12:15	07/10/19 13:31	10.17g/10mL	10g/5mL	1.97
A9G0227-05RE1	Soil	EPA 8081B	07/09/19 12:20	07/10/19 13:31	10.18g/10mL	10g/5mL	1.96
A9G0227-06RE1	Soil	EPA 8081B	07/09/19 13:05	07/10/19 13:31	10.45g/10mL	10g/5mL	1.91
A9G0227-07RE1	Soil	EPA 8081B	07/09/19 13:15	07/10/19 13:31	10.41g/10mL	10g/5mL	1.92
A9G0227-08RE1	Soil	EPA 8081B	07/09/19 13:15	07/10/19 13:31	10.08g/10mL	10g/5mL	1.98
A9G0227-09RE1	Soil	EPA 8081B	07/09/19 13:20	07/10/19 13:31	10.06g/10mL	10g/5mL	1.99
A9G0227-10RE1	Soil	EPA 8081B	07/09/19 13:55	07/10/19 13:31	10.27g/10mL	10g/5mL	1.95
A9G0227-11RE1	Soil	EPA 8081B	07/09/19 14:10	07/10/19 13:31	10.26g/10mL	10g/5mL	1.95
A9G0227-12RE1	Soil	EPA 8081B	07/09/19 14:42	07/10/19 13:31	10.18g/10mL	10g/5mL	1.96
A9G0227-13RE1	Soil	EPA 8081B	07/09/19 14:50	07/10/19 13:31	10.21g/10mL	10g/5mL	1.96
Batch: 9070794							
A9G0227-14RE1	Soil	EPA 8081B	07/09/19 15:25	07/10/19 15:58	10.14g/10mL	10g/5mL	1.97
A9G0227-15RE1	Soil	EPA 8081B	07/09/19 15:30	07/10/19 15:58	10.11g/10mL	10g/5mL	1.98
A9G0227-16RE1	Soil	EPA 8081B	07/09/19 08:50	07/10/19 15:58	10.35g/10mL	10g/5mL	1.93
A9G0227-17RE1	Soil	EPA 8081B	07/09/19 09:05	07/10/19 15:58	10.29g/10mL	10g/5mL	1.94
A9G0227-18RE1	Soil	EPA 8081B	07/09/19 09:30	07/10/19 15:58	10.21g/10mL	10g/5mL	1.96
A9G0227-19RE1	Soil	EPA 8081B	07/09/19 09:35	07/10/19 15:58	10.18g/10mL	10g/5mL	1.96

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9070765							
A9G0227-01	Soil	EPA 8000C	07/09/19 08:30	07/10/19 09:10			NA
A9G0227-02	Soil	EPA 8000C	07/09/19 10:40	07/10/19 09:10			NA
A9G0227-03	Soil	EPA 8000C	07/09/19 10:45	07/10/19 09:10			NA
A9G0227-04	Soil	EPA 8000C	07/09/19 12:15	07/10/19 09:10			NA
A9G0227-05	Soil	EPA 8000C	07/09/19 12:20	07/10/19 09:10			NA
A9G0227-06	Soil	EPA 8000C	07/09/19 13:05	07/10/19 09:10			NA
A9G0227-07	Soil	EPA 8000C	07/09/19 13:15	07/10/19 09:10			NA
A9G0227-08	Soil	EPA 8000C	07/09/19 13:15	07/10/19 09:10			NA
A9G0227-09	Soil	EPA 8000C	07/09/19 13:20	07/10/19 09:10			NA
A9G0227-10	Soil	EPA 8000C	07/09/19 13:55	07/10/19 09:10			NA

Apex Laboratories

Lisa Domenighini, Client Services Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9G0227-11	Soil	EPA 8000C	07/09/19 14:10	07/10/19 09:10			NA
A9G0227-12	Soil	EPA 8000C	07/09/19 14:42	07/10/19 09:10			NA
A9G0227-13	Soil	EPA 8000C	07/09/19 14:50	07/10/19 09:10			NA
A9G0227-14	Soil	EPA 8000C	07/09/19 15:25	07/10/19 09:10			NA
A9G0227-15	Soil	EPA 8000C	07/09/19 15:30	07/10/19 09:10			NA
A9G0227-16	Soil	EPA 8000C	07/09/19 08:50	07/10/19 09:10			NA
A9G0227-17	Soil	EPA 8000C	07/09/19 09:05	07/10/19 09:10			NA
A9G0227-18	Soil	EPA 8000C	07/09/19 09:30	07/10/19 09:10			NA
A9G0227-19	Soil	EPA 8000C	07/09/19 09:35	07/10/19 09:10			NA

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental	Project:	**La Center Middle School**	
4412 SW Corbett Ave	Project Number:	**La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager:	**Bret Waldron**	**A9G0227 - 07 15 19 0914**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

C-05 Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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4412 SW Corbett Ave	Project Number:	**La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager:	**Bret Waldron**	**A9G0227 - 07 15 19 0914**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental	Project:	**La Center Middle School**	
4412 SW Corbett Ave	Project Number:	**La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager:	**Bret Waldron**	**A9G0227 - 07 15 19 0914**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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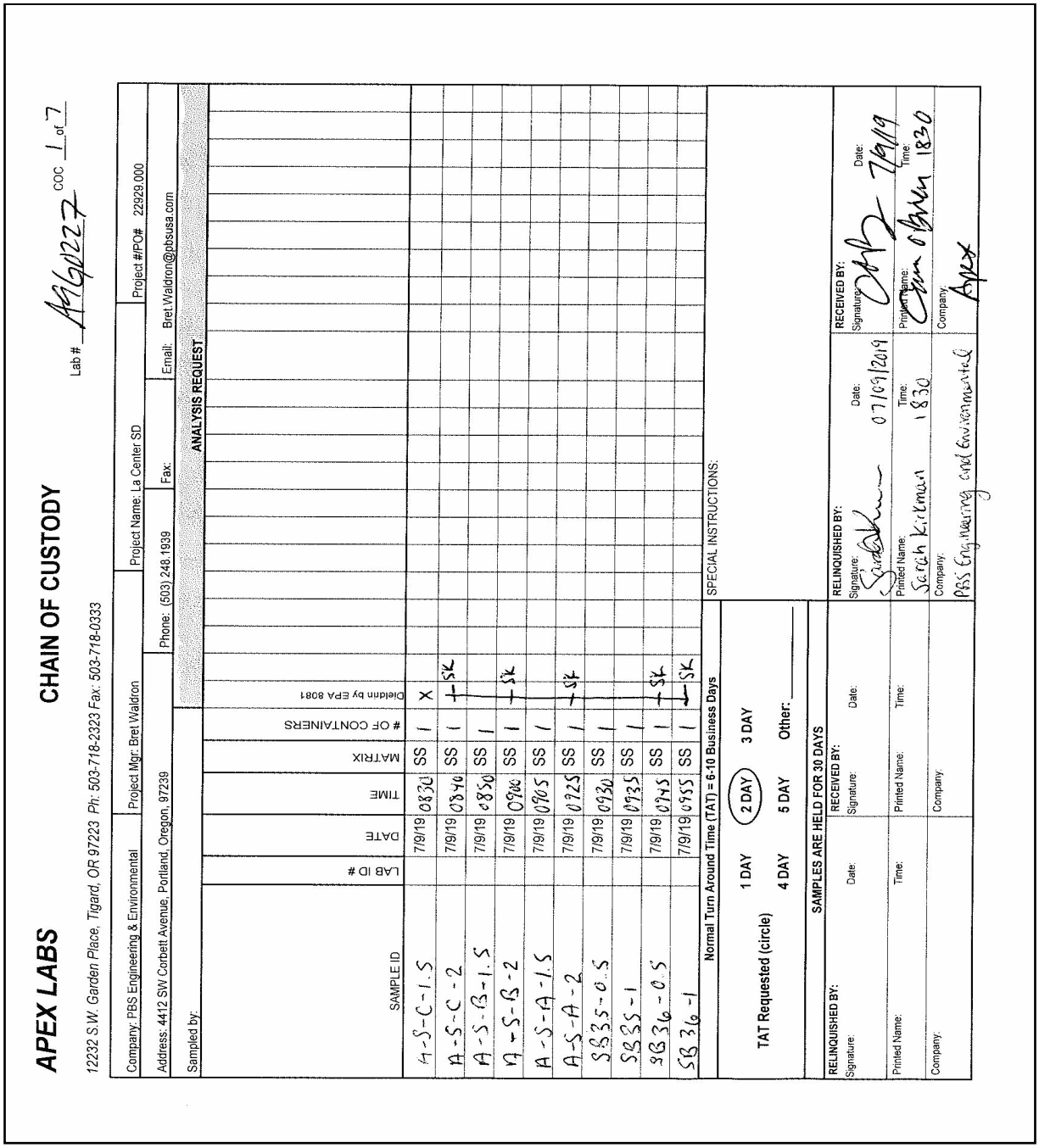
PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — CHAIN OF CUSTODY

Lab # A9G0227 COC 1 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diedrin by EPA 8081
A-S-C-1.5		7/9/19	0836	SS	1	X
A-S-C-2		7/9/19	0840	SS	1	+SK
A-S-B-1.5		7/9/19	0850	SS	1	
A-S-B-2		7/9/19	0900	SS	1	+SK
A-S-A-1.5		7/9/19	0905	SS	1	
A-S-A-2		7/9/19	0925	SS	1	+SK
SB35-0.5		7/9/19	0930	SS	1	
SB35-1		7/9/19	0935	SS	1	
SB36-0.5		7/9/19	0945	SS	1	+SK
SB36-1		7/9/19	0955	SS	1	+SK

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/09/2019 | RECEIVED BY: Signature: Date: 7/9/19

Printed Name: Time: | Printed Name: Sarah Kirkman Time: 1830 | Printed Name: Time:

Company: | Company: PBS Engineering and Environmental | Company: Apex

Apex Laboratories

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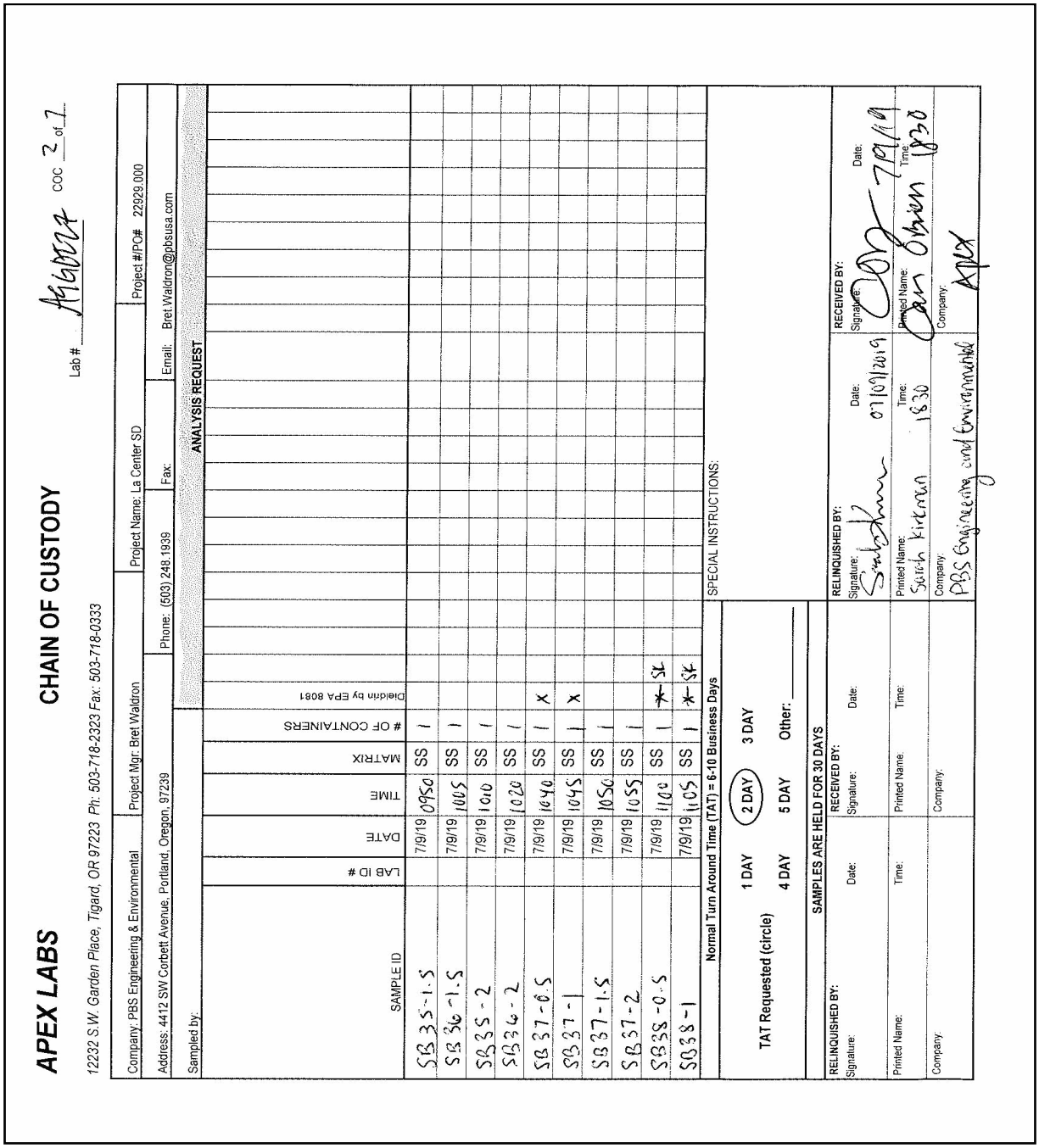
Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — Lab # Apex — COC 2 of 2

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diakinn by EPA 8081
SB35-1.5		7/9/19	0950	SS	1	
SB36-1.5		7/9/19	1005	SS	1	
SB35-2		7/9/19	1010	SS	1	
SB34-2		7/9/19	1020	SS	1	
SB37-0.5		7/9/19	1040	SS	1	X
SB37-1		7/9/19	1045	SS	1	X
SB37-1.5		7/9/19	1050	SS	1	
SB37-2		7/9/19	1055	SS	1	
SB38-0.5		7/9/19	1100	SS	1	* SK
SB38-1		7/9/19	1105	SS	1	* SK

ANALYSIS REQUEST

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other: ____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature: Sarah Kirkman	Signature:
Printed Name:	Printed Name:	Printed Name: Sarah Kirkman	Printed Name:
Company:	Company:	Company: PBS Engineering and Environmental	Company: Apex
Date:	Date:	Date: 07/15/2019	Date: 7/16/19
Time:	Time:	Time: 1830	Time: 1830

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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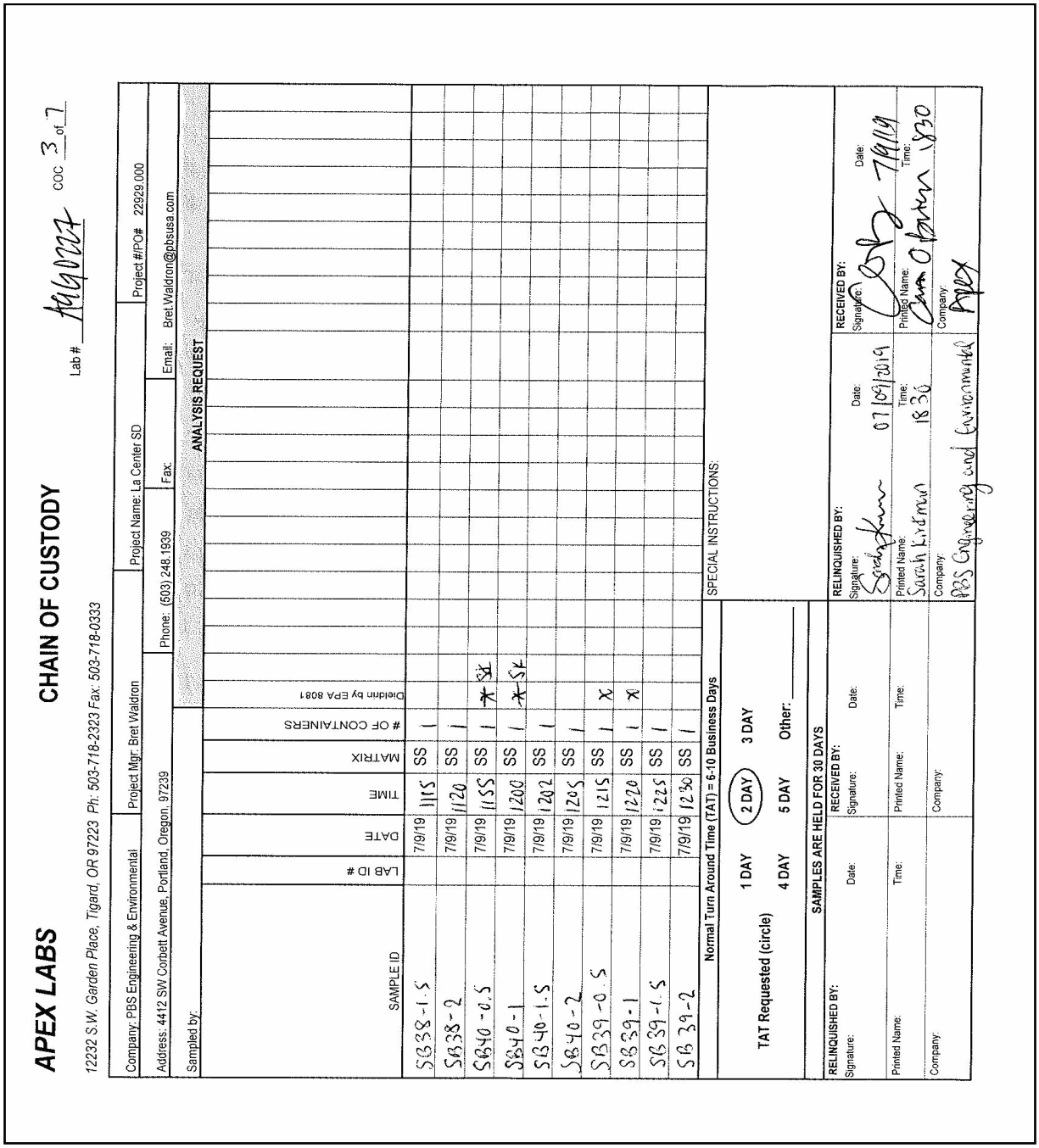
Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS

CHAIN OF CUSTODY

Lab # 19G0227 COC 3 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diesel/oil by EPA 8081
SB38-1.5		7/9/19	1115	SS	1	
SB38-2		7/9/19	1120	SS	1	
SB40-0.5		7/9/19	1155	SS	1	X
SB40-1		7/9/19	1200	SS	1	X
SB40-1.5		7/9/19	1202	SS	1	
SB40-2		7/9/19	1205	SS	1	
SB39-0.5		7/9/19	1215	SS	1	X
SB39-1		7/9/19	1220	SS	1	X
SB39-1.5		7/9/19	1225	SS	1	
SB39-2		7/9/19	1230	SS	1	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Sarah Kuhlman Date: 07/16/2019 | RECEIVED BY: Signature: Date: 7/16/19

Printed Name: Sarah Kuhlman Time: 1830 | Printed Name: Time: 1830

Company: PBS Engineering and Environmental | Company: Apex

Apex Laboratories

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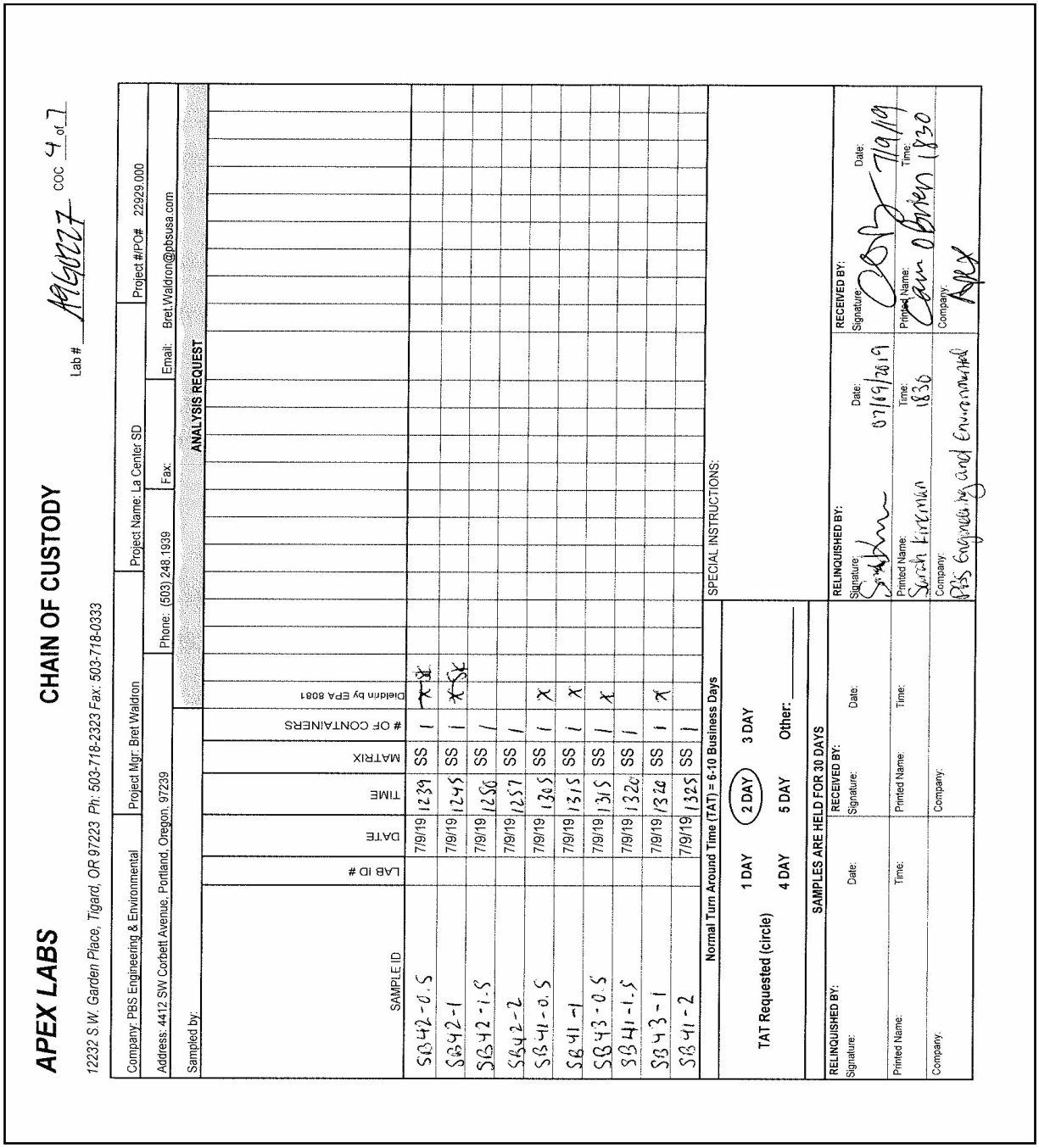
Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — Lab # 19G0227 — COC 4 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000
Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com
Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB42-0.5		7/9/19	1239	SS	1	X
SB42-1		7/9/19	1245	SS	1	X
SB42-1.5		7/9/19	1256	SS	1	
SB42-2		7/9/19	1257	SS	1	
SB41-0.5		7/9/19	1305	SS	1	X
SB41-1		7/9/19	1315	SS	1	X
SB43-0.5		7/9/19	1315	SS	1	X
SB41-1.5		7/9/19	1320	SS	1	
SB43-1		7/9/19	1328	SS	1	X
SB41-2		7/9/19	1325	SS	1	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: Printed Name: Time: Company:

RECEIVED BY: Signature: Date: Printed Name: Time: Company:

RELINQUISHED BY: Signature: Date: 07/19/2019 Printed Name: Sarah Kirkman Time: 1830 Company: PBS Engineering and Environmental

RECEIVED BY: Signature: Date: 7/19/19 Printed Name: Cam O'Brien Time: 1830 Company: Apex

Apex Laboratories

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Lisa Domenighini, Client Services Manager

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6700 S.W. Sandburg Street
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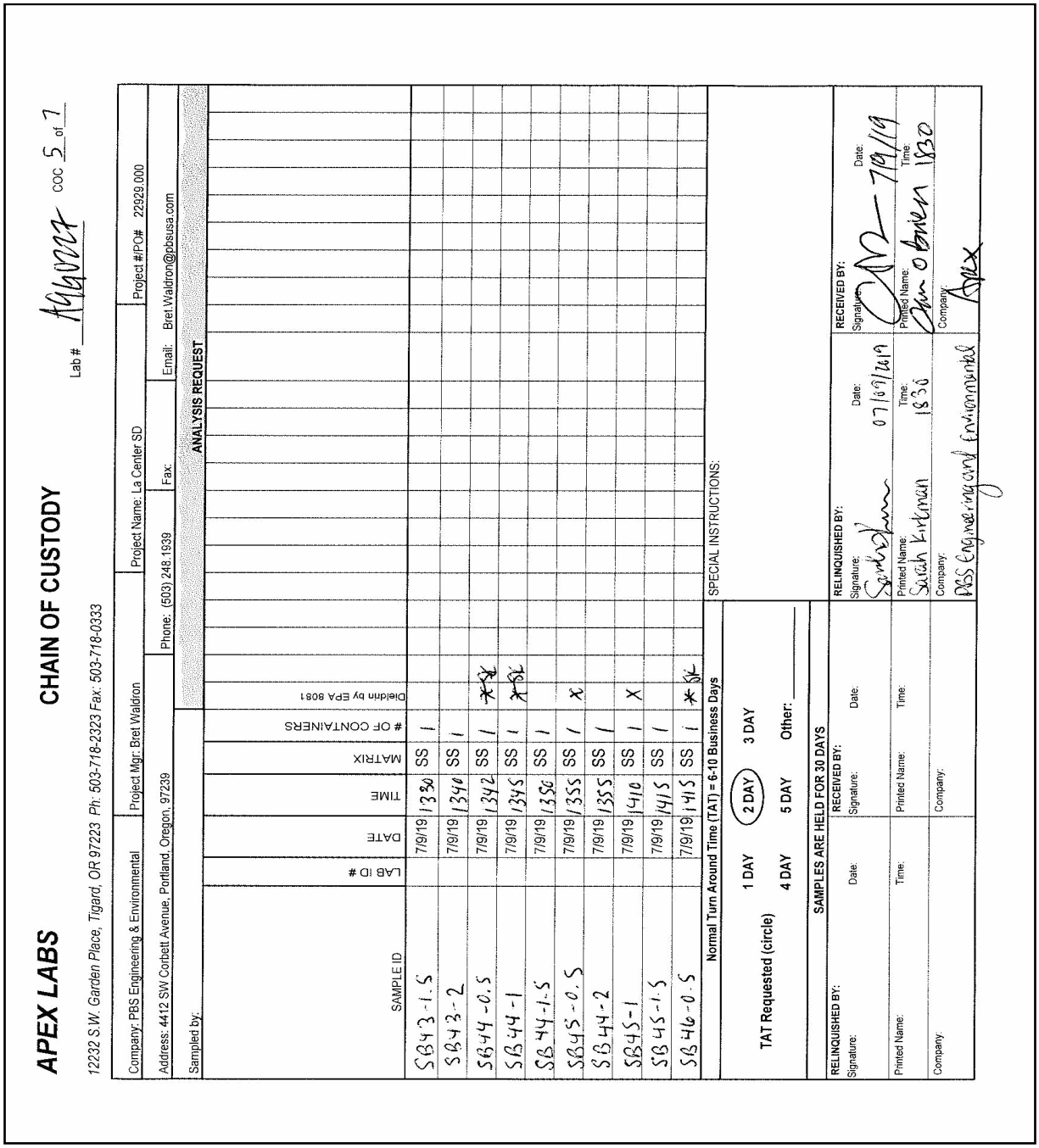
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — COC 5 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A9G0227

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diedrin by EPA 8081
SB43-1.5		7/9/19	1330	SS	1	
SB43-2		7/9/19	1340	SS	1	
SB44-0.5		7/9/19	1342	SS	1	**
SB44-1		7/9/19	1345	SS	1	**
SB44-1.5		7/9/19	1350	SS	1	
SB45-0.5		7/9/19	1355	SS	1	X
SB44-2		7/9/19	1355	SS	1	
SB45-1		7/9/19	1410	SS	1	X
SB45-1.5		7/9/19	1415	SS	1	
SB46-0.5		7/9/19	1415	SS	1	**

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Date: 07/19/19 | RECEIVED BY: Signature: Date:

Printed Name: Time: | Printed Name: Time:

Printed Name: Susan Kirkman Time: 1830 | Printed Name: Jim O'Brien Time: 1830

Company: | Company:

Company: PBS Engineering and Environmental | Company: Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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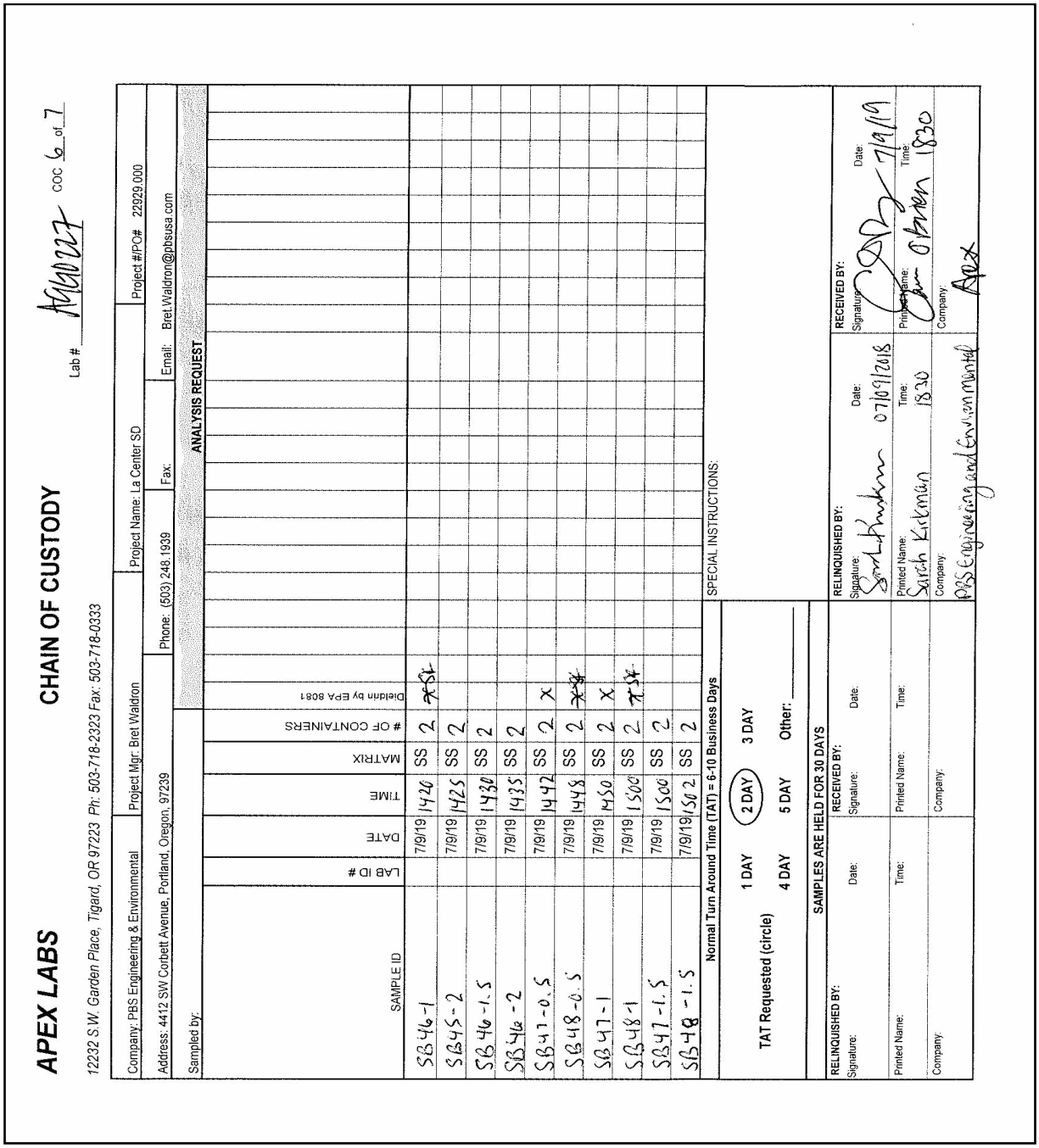
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — Lab # A9G0227 — COC 6 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000
Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com
Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diellrin by EPA 8081
SB46-1		7/9/19	1426	SS	2	X
SB45-2		7/9/19	1425	SS	2	
SB46-1.5		7/9/19	1431	SS	2	
SB46-2		7/9/19	1435	SS	2	
SB47-0.5		7/9/19	1442	SS	2	X
SB48-0.5		7/9/19	1448	SS	2	X
SB47-1		7/9/19	1450	SS	2	X
SB48-1		7/9/19	1500	SS	2	X
SB47-1.5		7/9/19	1500	SS	2	
SB48-1.5		7/9/19	1502	SS	2	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other: ____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:
Printed Name: Time: | Printed Name: Time:
Company: | Company:

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/09/2018
Printed Name: Sarah Kirkman Time: 1830
Company: PBS Engineering and Environmental

RECEIVED BY: Signature: Date: 7/9/19
Printed Name: Time: 1830
Company: Apex

Apex Laboratories

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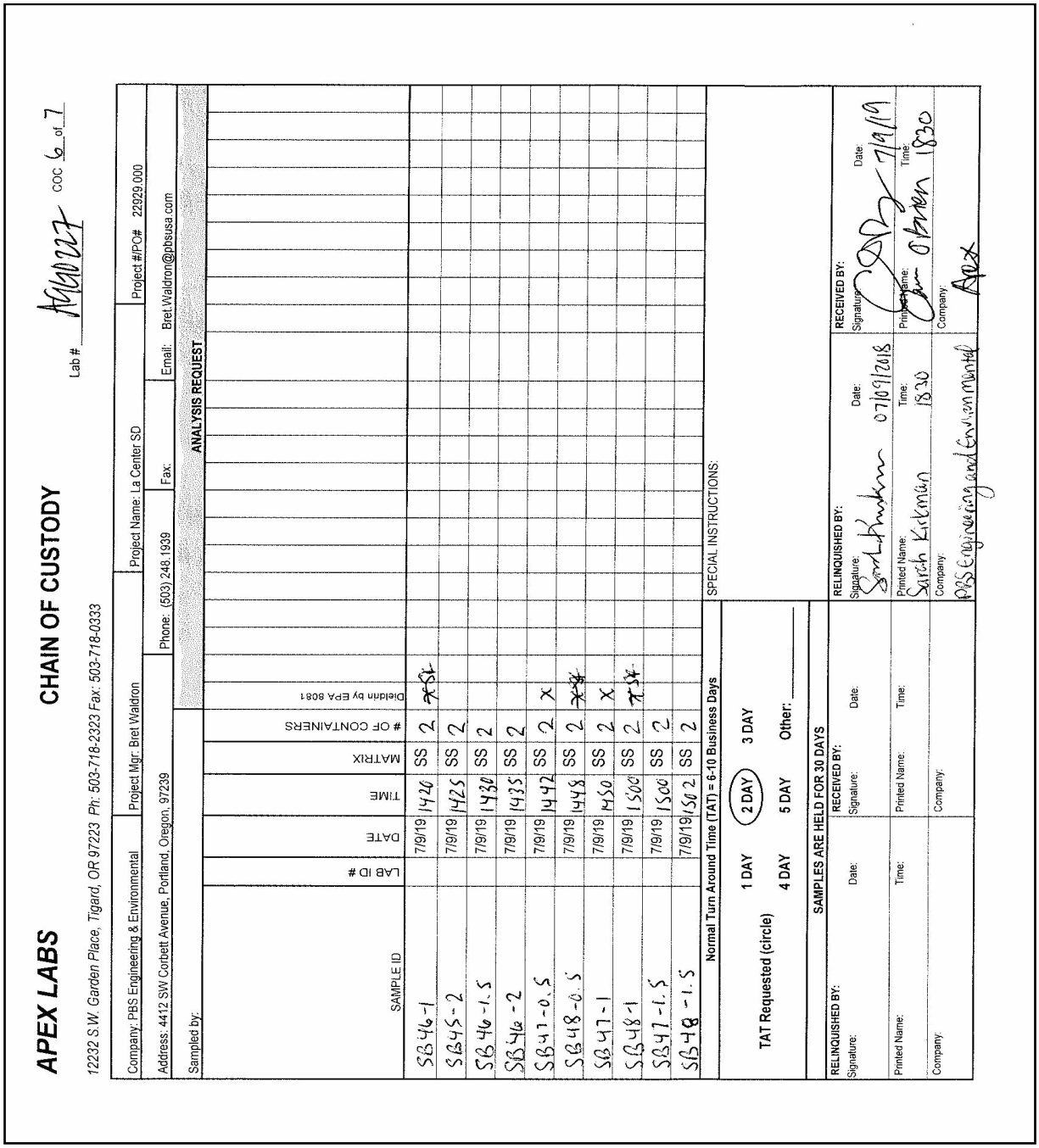
Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — Lab # A9G0227 — COC 6 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000
Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com
Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diellrin by EPA 8081
SB46-1		7/9/19	1426	SS	2	X
SB45-2		7/9/19	1425	SS	2	
SB46-1.5		7/9/19	1431	SS	2	
SB46-2		7/9/19	1435	SS	2	
SB47-0.5		7/9/19	1442	SS	2	X
SB48-0.5		7/9/19	1448	SS	2	X
SB47-1		7/9/19	1450	SS	2	X
SB48-1		7/9/19	1500	SS	2	X
SB47-1.5		7/9/19	1500	SS	2	
SB48-1.5		7/9/19	1502	SS	2	

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other: ____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/09/2018 Time: 1830 Printed Name: Sarah Kirkman Company: PBS Engineering and Environmental
RECEIVED BY: Signature: Date: 7/9/19 Time: 1830 Printed Name: Jim O'Brien Company: Apex

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:
RECEIVED BY: Signature: Date: Time: Printed Name: Company:

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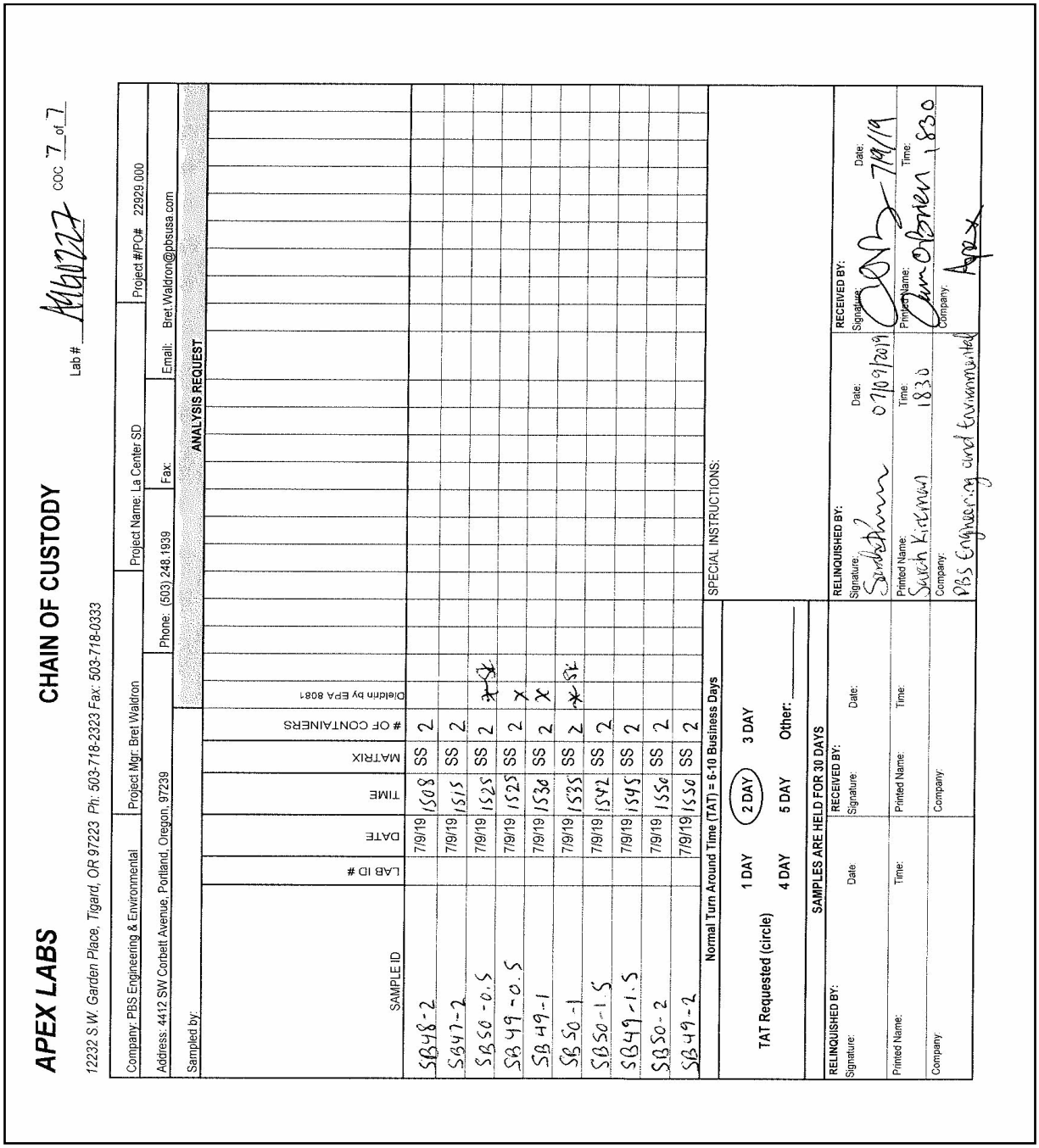
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**



APEX LABS — **CHAIN OF CUSTODY** — Lab # A9G0227 — COC 7 of 7

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000
Address: 4412 SW Corbett Avenue, Portland, Oregon 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com
Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diesel/Oil by EPA 8081
SB48-2		7/9/19	1508	SS	2	
SB47-2		7/9/19	1515	SS	2	
SB50-0.5		7/9/19	1525	SS	2	X
SB49-0.5		7/9/19	1525	SS	2	X
SB49-1		7/9/19	1530	SS	2	X
SB50-1		7/9/19	1535	SS	2	X
SB50-1.5		7/9/19	1542	SS	2	
SB49-1.5		7/9/19	1545	SS	2	
SB50-2		7/9/19	1550	SS	2	
SB49-2		7/9/19	1550	SS	2	

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:
Date:	Date:
Printed Name:	Printed Name:
Time:	Time:
Company:	Company:

RELINQUISHED BY:	RECEIVED BY:
Signature: Sarah Kirkman	Signature:
Date: 07/09/2019	Date: 7/9/19
Printed Name: Sarah Kirkman	Printed Name: Lisa Domenighini
Time: 1830	Time: 1830
Company: PBS Engineering and Environmental	Company: Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **La Center Middle School**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0227 - 07 15 19 0914**

APEX LABS COOLER RECEIPT FORM

Client: PBS Element WO#: A9 G0227

Project/Project #: La Center SD / 22929.000

Delivery Info:
Date/time received: 7/9/19 @ 1830 By: AB
Delivered by: Apex____Client X ESS____FedEx____UPS____Swift____Senvoy____SDS____Other_____
Cooler Inspection Date/time inspected: 7/9/19 @ 1830 By: AB
Chain of Custody included? Yes X No ___ Custody seals? Yes_____ No X
Signed/dated by client? Yes X No ___
Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.6	2.1	1.8				
Received on ice? (Y/N)	Y	Y	Y				
Temp. blanks? (Y/N)	Y	Y	Y				
Ice type: (Gel/Real/Other)	Real	Real	Real				
Condition:	good	good	good				

Cooler out of temp? (Y/N) Possible reason why:
If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA
Out of temperature samples form initiated? Yes/No/NA
Samples Inspection: Date/time inspected: 7/10/19 @ 8:05 By: MB
All samples intact? Yes X No ___ Comments:
Bottle labels/COCs agree? Yes X No ___ Comments:
COC/container discrepancies form initiated? Yes ___ No ___ NA X
Containers/volumes received appropriate for analysis? Yes X No ___ Comments:
Do VOA vials have visible headspace? Yes ___ No ___ NA X
Comments
Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X
Comments:
Additional information:
Labeled by: KJ Witness: KAD Cooler Inspected by: AB See Project Contact Form: Y

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Friday, July 19, 2019

Bret Waldron
PBS Engineering and Environmental
4412 SW Corbett Ave
Portland, OR 97239

RE: A9G0234 - La Center Middle School - 22929.000

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9G0234, which was received by the laboratory on 7/9/2019 at 6:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.6 degC	Cooler #2	2.1 degC
Cooler #3	1.8 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-S-C-2	A9G0234-01	Soil	07/09/19 08:40	07/09/19 18:30
SB36-0.5	A9G0234-04	Soil	07/09/19 09:45	07/09/19 18:30
SB35-1.5	A9G0234-06	Soil	07/09/19 09:50	07/09/19 18:30
SB37-1.5	A9G0234-10	Soil	07/09/19 10:50	07/09/19 18:30
SB38-0.5	A9G0234-12	Soil	07/09/19 11:00	07/09/19 18:30
SB40-0.5	A9G0234-16	Soil	07/09/19 11:55	07/09/19 18:30
SB42-0.5	A9G0234-22	Soil	07/09/19 12:39	07/09/19 18:30
SB41-1.5	A9G0234-26	Soil	07/09/19 13:20	07/09/19 18:30
SB43-1.5	A9G0234-28	Soil	07/09/19 13:30	07/09/19 18:30
SB44-0.5	A9G0234-30	Soil	07/09/19 13:42	07/09/19 18:30
SB46-0.5	A9G0234-35	Soil	07/09/19 14:15	07/09/19 18:30
SB48-0.5	A9G0234-40	Soil	07/09/19 14:48	07/09/19 18:30
SB50-0.5	A9G0234-46	Soil	07/09/19 15:25	07/09/19 18:30

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A-S-C-2 (A9G0234-01)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.00883**	---	0.00112	mg/kg dry	1	07/16/19 13:39	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 84 %*	*Limits: 42-129 %*		*1*	*07/16/19 13:39*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*85 %*	*55-130 %*	*1*	*07/16/19 13:39*	*EPA 8081B*	
SB36-0.5 (A9G0234-04)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0862**	---	0.00114	mg/kg dry	1	07/16/19 13:57	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 99 %*	*Limits: 42-129 %*		*1*	*07/16/19 13:57*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*111 %*	*55-130 %*	*1*	*07/16/19 13:57*	*EPA 8081B*	
SB35-1.5 (A9G0234-06)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0330**	---	0.00115	mg/kg dry	1	07/16/19 14:32	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 92 %*	*Limits: 42-129 %*		*1*	*07/16/19 14:32*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*103 %*	*55-130 %*	*1*	*07/16/19 14:32*	*EPA 8081B*	
SB37-1.5 (A9G0234-10)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0476**	---	0.00112	mg/kg dry	1	07/16/19 14:49	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 92 %*	*Limits: 42-129 %*		*1*	*07/16/19 14:49*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*104 %*	*55-130 %*	*1*	*07/16/19 14:49*	*EPA 8081B*	
SB38-0.5 (A9G0234-12)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0516**	---	0.00110	mg/kg dry	1	07/16/19 15:07	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 103 %*	*Limits: 42-129 %*		*1*	*07/16/19 15:07*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*111 %*	*55-130 %*	*1*	*07/16/19 15:07*	*EPA 8081B*	
SB40-0.5 (A9G0234-16)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0678**	---	0.00106	mg/kg dry	1	07/16/19 15:59	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 97 %*	*Limits: 42-129 %*		*1*	*07/16/19 15:59*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*112 %*	*55-130 %*	*1*	*07/16/19 15:59*	*EPA 8081B*	
SB42-0.5 (A9G0234-22)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0958**	---	0.00111	mg/kg dry	1	07/16/19 16:17	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		*Recovery: 96 %*	*Limits: 42-129 %*		*1*	*07/16/19 16:17*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*105 %*	*55-130 %*	*1*	*07/16/19 16:17*	*EPA 8081B*	
SB41-1.5 (A9G0234-26)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0669**	---	0.00111	mg/kg dry	1	07/16/19 16:34	EPA 8081B	

Apex Laboratories

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503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB41-1.5 (A9G0234-26)				**Matrix: Soil**		**Batch: 9070911**		
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 98 %*	*Limits: 42-129 %*	*1*	*07/16/19 16:34*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*105 %*	*55-130 %*	*1*	*07/16/19 16:34*	*EPA 8081B*	
SB43-1.5 (A9G0234-28)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.00871**	---	0.00110	mg/kg dry	1	07/16/19 16:51	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*	*Limits: 42-129 %*	*1*	*07/16/19 16:51*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*99 %*	*55-130 %*	*1*	*07/16/19 16:51*	*EPA 8081B*	
SB44-0.5 (A9G0234-30)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0700**	---	0.00111	mg/kg dry	1	07/16/19 17:09	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 94 %*	*Limits: 42-129 %*	*1*	*07/16/19 17:09*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*109 %*	*55-130 %*	*1*	*07/16/19 17:09*	*EPA 8081B*	
SB46-0.5 (A9G0234-35)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0859**	---	0.00111	mg/kg dry	1	07/16/19 17:26	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 88 %*	*Limits: 42-129 %*	*1*	*07/16/19 17:26*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*110 %*	*55-130 %*	*1*	*07/16/19 17:26*	*EPA 8081B*	
SB48-0.5 (A9G0234-40RE1)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.114**	---	0.00537	mg/kg dry	5	07/17/19 13:26	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*	*Limits: 42-129 %*	*5*	*07/17/19 13:26*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*87 %*	*55-130 %*	*5*	*07/17/19 13:26*	*EPA 8081B*	
SB50-0.5 (A9G0234-46)				**Matrix: Soil**		**Batch: 9070911**		
Dieldrin	**0.0868**	---	0.00106	mg/kg dry	1	07/16/19 18:01	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 97 %*	*Limits: 42-129 %*	*1*	*07/16/19 18:01*	*EPA 8081B*	
Decachlorobiphenyl (Surr)			*111 %*	*55-130 %*	*1*	*07/16/19 18:01*	*EPA 8081B*	

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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A-S-C-2 (A9G0234-01)				**Matrix: Soil**		**Batch: 9070946**		
% Solids	**82.8**	---	1.00	% by Weight	1	07/17/19 08:42	EPA 8000C	
SB36-0.5 (A9G0234-04)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**85.2**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB35-1.5 (A9G0234-06)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**84.8**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB37-1.5 (A9G0234-10)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**87.2**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB38-0.5 (A9G0234-12)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**85.0**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB40-0.5 (A9G0234-16)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**87.5**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB42-0.5 (A9G0234-22)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**84.5**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB41-1.5 (A9G0234-26)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**87.1**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB43-1.5 (A9G0234-28)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**85.1**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB44-0.5 (A9G0234-30)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**86.7**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB46-0.5 (A9G0234-35)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**86.6**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB48-0.5 (A9G0234-40)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**88.9**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	
SB50-0.5 (A9G0234-46)				**Matrix: Soil**		**Batch: 9070899**		

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4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB50-0.5 (A9G0234-46)				**Matrix: Soil**		**Batch: 9070899**		
% Solids	**87.0**	---	1.00	% by Weight	1	07/16/19 08:28	EPA 8000C	

Apex Laboratories

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Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070911 - EPA 3546									Soil			
Blank (9070911-BLK1)		Prepared: 07/15/19 10:34		Analyzed: 07/16/19 13:04								
EPA 8081B												
Dieldrin	ND	---	0.000909	mg/kg wet	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 95 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)		*105 %*		*55-130 %*			*"*					
LCS (9070911-BS1)		Prepared: 07/15/19 10:34		Analyzed: 07/16/19 13:22								
EPA 8081B												
Dieldrin	0.0552	---	0.00100	mg/kg wet	1	0.0500	---	110	56 - 136%	---	---	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 100 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)		*115 %*		*55-130 %*			*"*					
Duplicate (9070911-DUP1)		Prepared: 07/15/19 10:34		Analyzed: 07/16/19 14:14								
QC Source Sample: SB36-0.5 (A9G0234-04)												
EPA 8081B												
Dieldrin	**0.0817**	---	0.00114	mg/kg dry	1	---	0.0862	---	---	5	30%	
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 91 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)		*101 %*		*55-130 %*			*"*					
Matrix Spike (9070911-MS1)		Prepared: 07/15/19 10:34		Analyzed: 07/16/19 18:19								
QC Source Sample: SB50-0.5 (A9G0234-46)												
EPA 8081B												
Dieldrin	0.135	---	0.00107	mg/kg dry	1	0.0535	0.0868	89	56 - 136%	---	---	E
Surr: 2,4,5,6-TCMX (Surr)		*Recovery: 94 %*		*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)		*105 %*		*55-130 %*			*"*					

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Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070899 - Total Solids (Dry Weight)									Soil			
Duplicate (9070899-DUP2)		Prepared: 07/15/19 09:13		Analyzed: 07/16/19 08:28								
QC Source Sample: SB36-0.5 (A9G0234-04)												
EPA 8000C												
% Solids	**85.5**	---	1.00	% by Weight	1	---	85.2	---	---	0.4	10%	
Duplicate (9070899-DUP3)		Prepared: 07/15/19 09:13		Analyzed: 07/16/19 08:28								
QC Source Sample: SB48-0.5 (A9G0234-40)												
EPA 8000C												
% Solids	**88.9**	---	1.00	% by Weight	1	---	88.9	---	---	0.006	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9070946 - Total Solids (Dry Weight)								Soil				
Duplicate (9070946-DUP1)		Prepared: 07/16/19 08:54		Analyzed: 07/17/19 08:42								
QC Source Sample: A-S-C-2 (A9G0234-01)												
EPA 8000C												
% Solids	**82.9**	---	1.00	% by Weight	1	---	82.8	---	---	0.1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
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PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9070911							
A9G0234-01	Soil	EPA 8081B	07/09/19 08:40	07/15/19 12:59	10.78g/5mL	10g/5mL	0.93
A9G0234-04	Soil	EPA 8081B	07/09/19 09:45	07/15/19 10:34	10.26g/5mL	10g/5mL	0.98
A9G0234-06	Soil	EPA 8081B	07/09/19 09:50	07/15/19 10:34	10.28g/5mL	10g/5mL	0.97
A9G0234-10	Soil	EPA 8081B	07/09/19 10:50	07/15/19 10:34	10.26g/5mL	10g/5mL	0.98
A9G0234-12	Soil	EPA 8081B	07/09/19 11:00	07/15/19 10:34	10.65g/5mL	10g/5mL	0.94
A9G0234-16	Soil	EPA 8081B	07/09/19 11:55	07/15/19 10:34	10.75g/5mL	10g/5mL	0.93
A9G0234-22	Soil	EPA 8081B	07/09/19 12:39	07/15/19 10:34	10.62g/5mL	10g/5mL	0.94
A9G0234-26	Soil	EPA 8081B	07/09/19 13:20	07/15/19 10:34	10.3g/5mL	10g/5mL	0.97
A9G0234-28	Soil	EPA 8081B	07/09/19 13:30	07/15/19 10:34	10.66g/5mL	10g/5mL	0.94
A9G0234-30	Soil	EPA 8081B	07/09/19 13:42	07/15/19 10:34	10.37g/5mL	10g/5mL	0.96
A9G0234-35	Soil	EPA 8081B	07/09/19 14:15	07/15/19 10:34	10.4g/5mL	10g/5mL	0.96
A9G0234-40RE1	Soil	EPA 8081B	07/09/19 14:48	07/15/19 10:34	10.47g/5mL	10g/5mL	0.96
A9G0234-46	Soil	EPA 8081B	07/09/19 15:25	07/15/19 10:34	10.81g/5mL	10g/5mL	0.93

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9070899							
A9G0234-04	Soil	EPA 8000C	07/09/19 09:45	07/15/19 09:13			NA
A9G0234-06	Soil	EPA 8000C	07/09/19 09:50	07/15/19 09:13			NA
A9G0234-10	Soil	EPA 8000C	07/09/19 10:50	07/15/19 09:13			NA
A9G0234-12	Soil	EPA 8000C	07/09/19 11:00	07/15/19 09:13			NA
A9G0234-16	Soil	EPA 8000C	07/09/19 11:55	07/15/19 09:13			NA
A9G0234-22	Soil	EPA 8000C	07/09/19 12:39	07/15/19 09:13			NA
A9G0234-26	Soil	EPA 8000C	07/09/19 13:20	07/15/19 09:13			NA
A9G0234-28	Soil	EPA 8000C	07/09/19 13:30	07/15/19 09:13			NA
A9G0234-30	Soil	EPA 8000C	07/09/19 13:42	07/15/19 09:13			NA
A9G0234-35	Soil	EPA 8000C	07/09/19 14:15	07/15/19 09:13			NA
A9G0234-40	Soil	EPA 8000C	07/09/19 14:48	07/15/19 09:13			NA
A9G0234-46	Soil	EPA 8000C	07/09/19 15:25	07/15/19 09:13			NA
Batch: 9070946							
A9G0234-01	Soil	EPA 8000C	07/09/19 08:40	07/16/19 08:57			NA

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Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental	Project:	**La Center Middle School**	
4412 SW Corbett Ave	Project Number:	**22929.000**	**Report ID:**
Portland, OR 97239	Project Manager:	**Bret Waldron**	**A9G0234 - 07 19 19 0854**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

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E	Estimated Value. The result is above the calibration range of the instrument.

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories, LLC

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4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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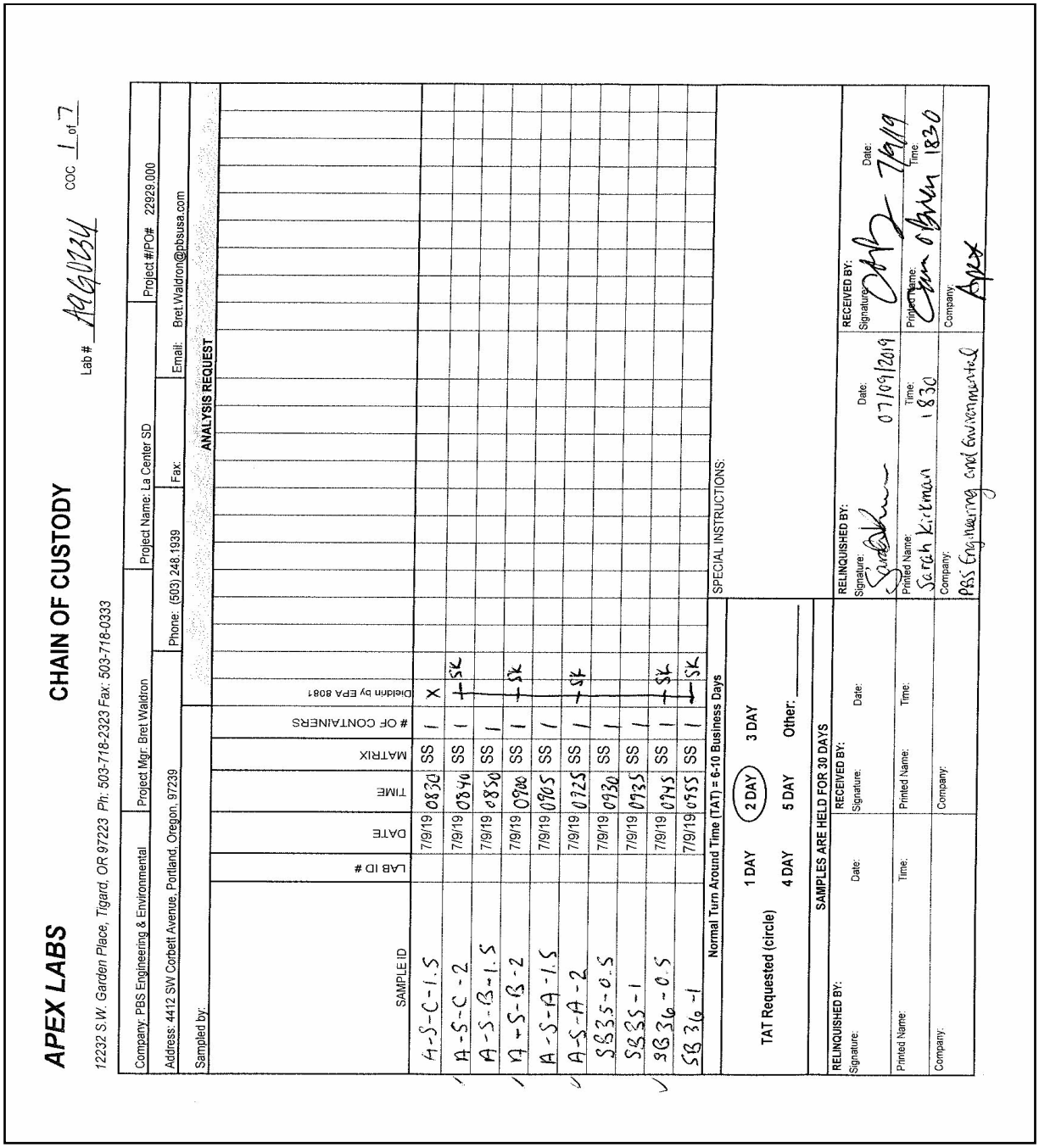
PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A9G0234 COC 1 of 2

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diesel/n by EPA 8081
A-S-C-1.5		7/9/19	0830	SS	1	X
A-S-C-2		7/9/19	0840	SS	1	+ SK
A-S-B-1.5		7/9/19	0850	SS	1	
A-S-B-2		7/9/19	0900	SS	1	+ SK
A-S-A-1.5		7/9/19	0905	SS	1	
A-S-A-2		7/9/19	0725	SS	1	+ SK
SB35-0.5		7/9/19	0930	SS	1	
SB35-1		7/9/19	0735	SS	1	
SB36-0.5		7/9/19	0745	SS	1	+ SK
SB36-1		7/9/19	0755	SS	1	+ SK

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/09/2019 Time: 1830 | RECEIVED BY: Signature: Date: 7/9/19 Time: 1830

Printed Name: Time: | Printed Name: Sarah Kirkman Time: 1830

Company: | Company: PBS Engineering and Environmental | Company: Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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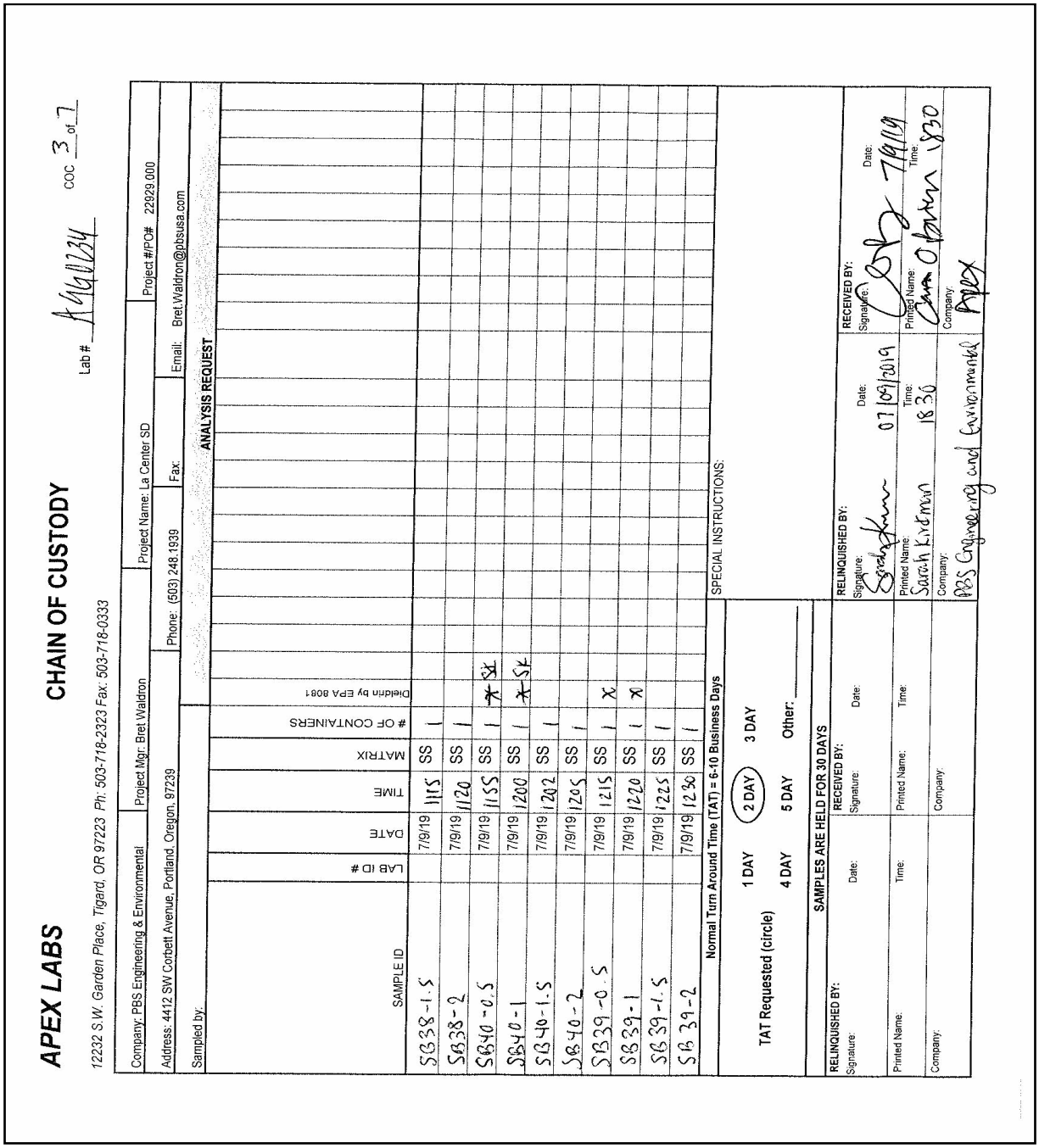
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

COC 3 of 7

Lab # A9G0234

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Diedrin by EPA 8081
SB38-1.5		7/9/19	1115	SS	1	
SB38-2		7/9/19	1120	SS	1	
SB40-0.5		7/9/19	1155	SS	1	X
SB40-1		7/9/19	1200	SS	1	X
SB40-1.5		7/9/19	1202	SS	1	
SB40-2		7/9/19	1205	SS	1	
SB39-0.5		7/9/19	1215	SS	1	X
SB39-1		7/9/19	1220	SS	1	X
SB39-1.5		7/9/19	1225	SS	1	
SB39-2		7/9/19	1230	SS	1	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: Printed Name: Time: Company:

RECEIVED BY: Signature: Date: Printed Name: Time: Company:

RELINQUISHED BY: Signature: Sarah Kyderman Date: 07/19/2019 Printed Name: Sarah Kyderman Time: 1836 Company: PBS Engineering and Environmental

RECEIVED BY: Signature: Lisa Domenighini Date: 7/19/19 Printed Name: Lisa Domenighini Time: 1830 Company: APEX

Apex Laboratories

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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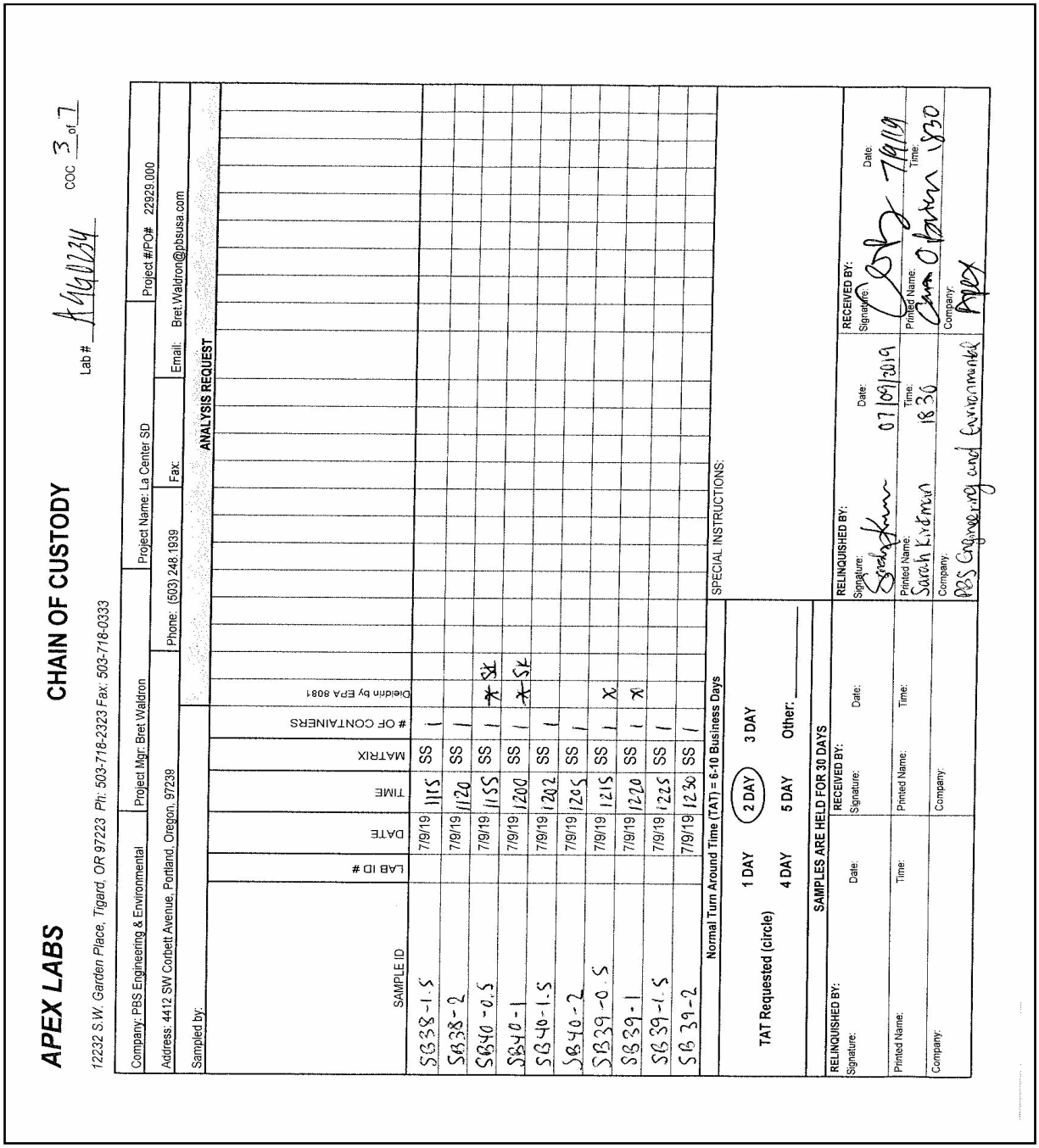
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A9G0234 COC 3 of 7

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB38-1.5		7/9/19	1115	SS	1	
SB38-2		7/9/19	1120	SS	1	
SB40-0.5		7/9/19	1155	SS	1	X
SB40-1		7/9/19	1200	SS	1	X
SB40-1.5		7/9/19	1202	SS	1	
SB40-2		7/9/19	1205	SS	1	
SB39-0.5		7/9/19	1215	SS	1	X
SB39-1		7/9/19	1220	SS	1	X
SB39-1.5		7/9/19	1225	SS	1	
SB39-2		7/9/19	1230	SS	1	

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other: ____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Sarah Kiefer Date: 07/19/2019 Time: 1836 | RECEIVED BY: Signature: Lisa Domenighini Date: 7/19/19 Time: 1830

Printed Name: Time: | Printed Name: Company:

Company: | Company: PBS Engineering and Environmental Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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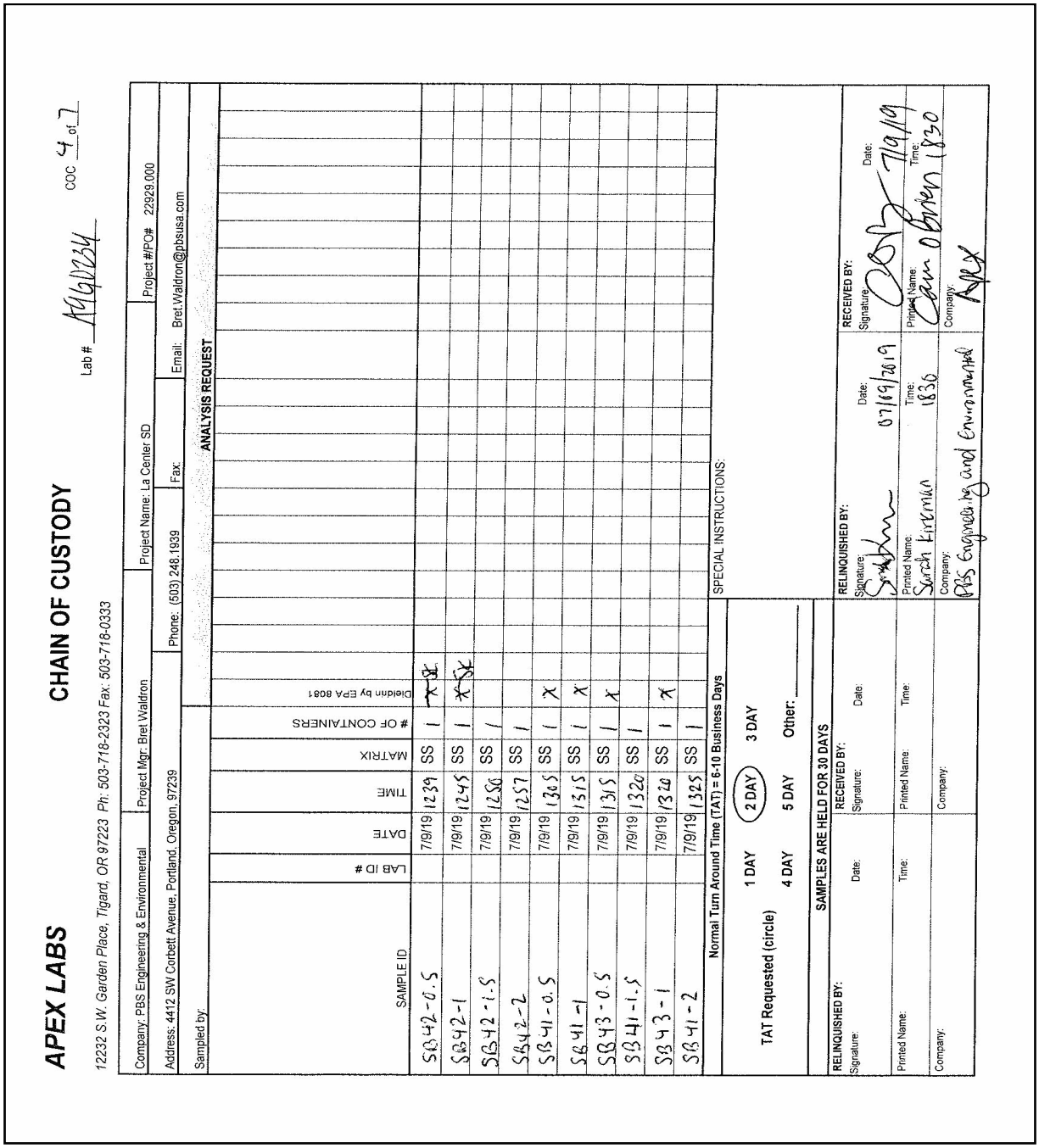
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS — CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

COC 4 of 7

Lab # A9G0234

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB42-0.5		7/9/19	1239	SS	1	X
SB42-1		7/9/19	1245	SS	1	X
SB42-1.5		7/9/19	1250	SS	1	
SB42-2		7/9/19	1257	SS	1	
SB41-0.5		7/9/19	1305	SS	1	X
SB41-1		7/9/19	1315	SS	1	X
SB43-0.5		7/9/19	1315	SS	1	X
SB41-1.5		7/9/19	1320	SS	1	
SB43-1		7/9/19	1330	SS	1	X
SB41-2		7/9/19	1325	SS	1	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: Time:
RECEIVED BY: Signature: Date: Printed Name: Company:

RELINQUISHED BY: Signature: Sarah Jeremiah Date: 07/19/2019 Time: 1836 Printed Name: Company: PBS Engineering and Environmental
RECEIVED BY: Signature: Date: 7/19/19 Time: 1830 Printed Name: Sam O'Brien Company: Apex

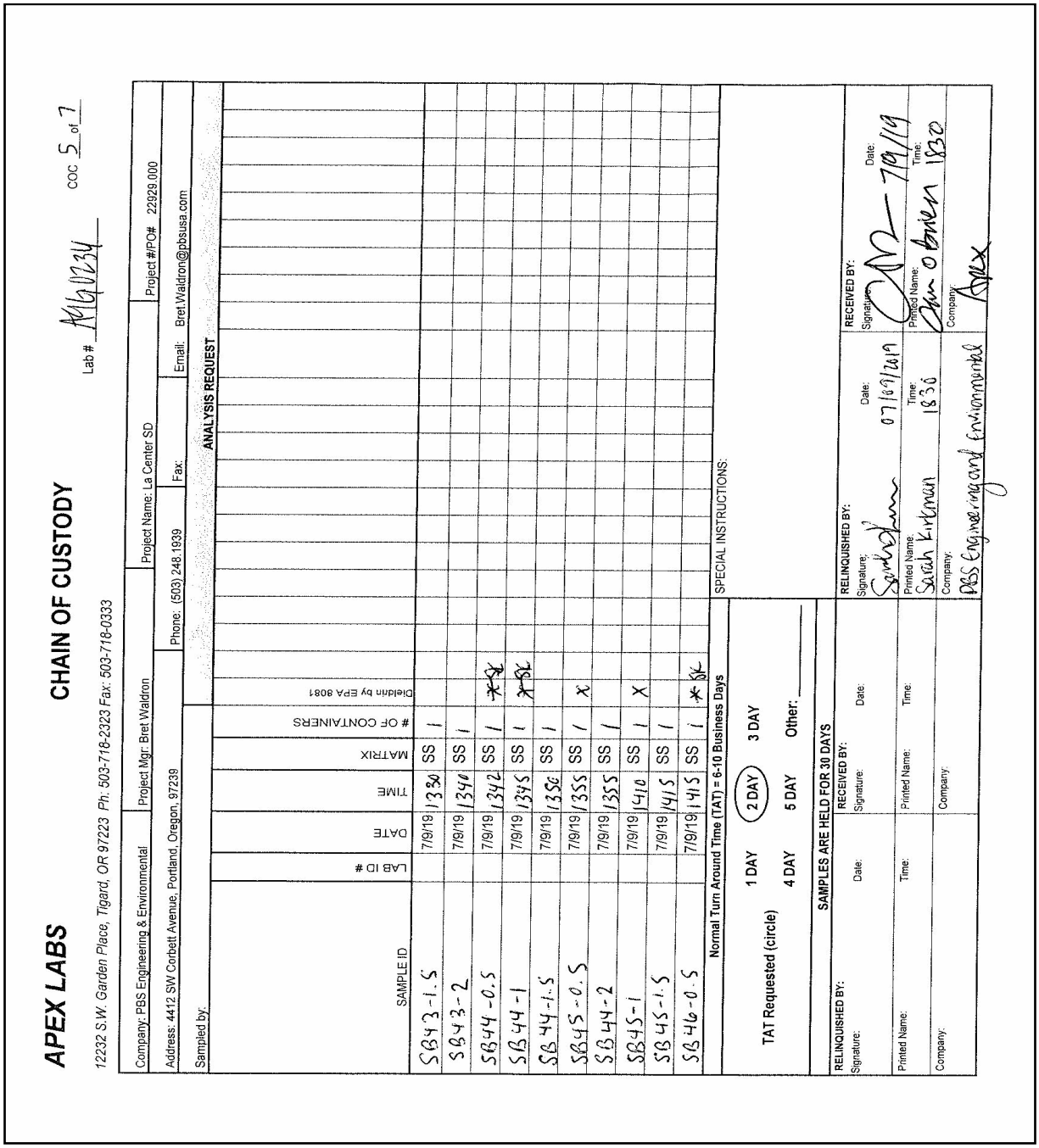
Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph. 503-718-2323 Fax: 503-718-0333

Lab # A9G0234 COC 5 of 7

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248.1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB43-1.5		7/9/19	1330	SS	1	
SB43-2		7/9/19	1340	SS	1	
SB44-0.5		7/9/19	1342	SS	1	X
SB44-1		7/9/19	1345	SS	1	X
SB44-1.5		7/9/19	1350	SS	1	
SB45-0.5		7/9/19	1355	SS	1	X
SB44-2		7/9/19	1355	SS	1	
SB45-1		7/9/19	1410	SS	1	X
SB45-1.5		7/9/19	1415	SS	1	
SB46-0.5		7/9/19	1415	SS	1	X

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 6-10 Business Days

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

Printed Name: Time: | Printed Name: Time:

Company: | Company:

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/19/2019

Printed Name: Sarah Kirkman Time: 1830

Company: PBS Engineering and Environmental

RECEIVED BY: Signature: Date: 7/19/19

Printed Name: Jan O'Brien Time: 1830

Company: Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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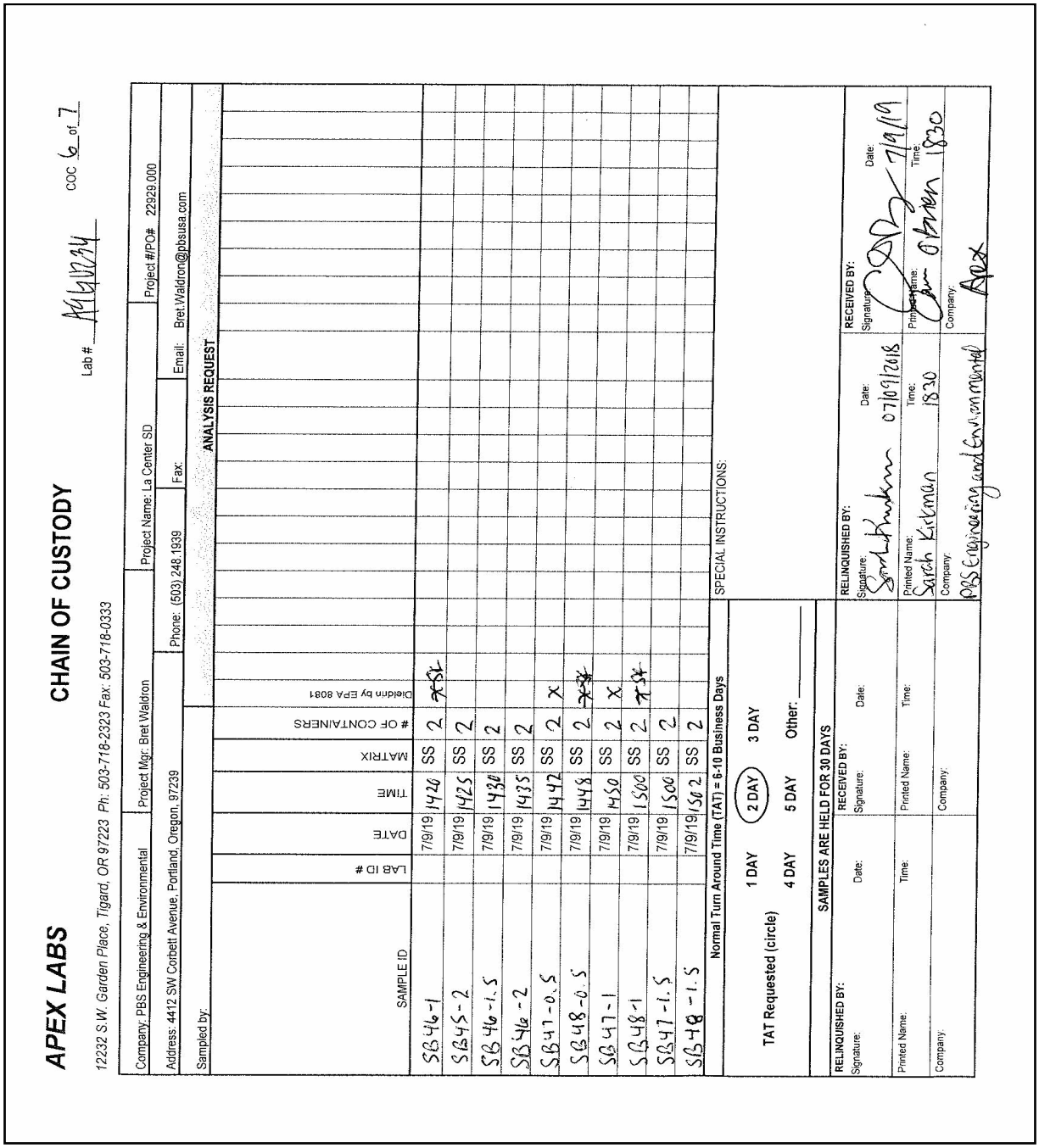
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A9G0234 COC 6 of 7

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB 46-1		7/9/19	1420	SS	2	X
SB 45-2		7/9/19	1425	SS	2	
SB 46-1.5		7/9/19	1430	SS	2	
SB 46-2		7/9/19	1435	SS	2	
SB 47-0.5		7/9/19	1442	SS	2	X
SB 48-0.5		7/9/19	1448	SS	2	X
SB 47-1		7/9/19	1450	SS	2	X
SB 48-1		7/9/19	1500	SS	2	X
SB 47-1.5		7/9/19	1500	SS	2	
SB 48-1.5		7/9/19	1502	SS	2	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY | 2 DAY | 3 DAY | 4 DAY | 5 DAY | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

Printed Name: Time: | Printed Name: Time:

Company: | Company:

RELINQUISHED BY: Signature: Sarah Kirkman Date: 07/19/2018

Printed Name: Sarah Kirkman Time: 1830

Company: PBS Engineering and Environmental

RECEIVED BY: Signature: Date: 7/19/19

Printed Name: Time: 1830

Company: Apex

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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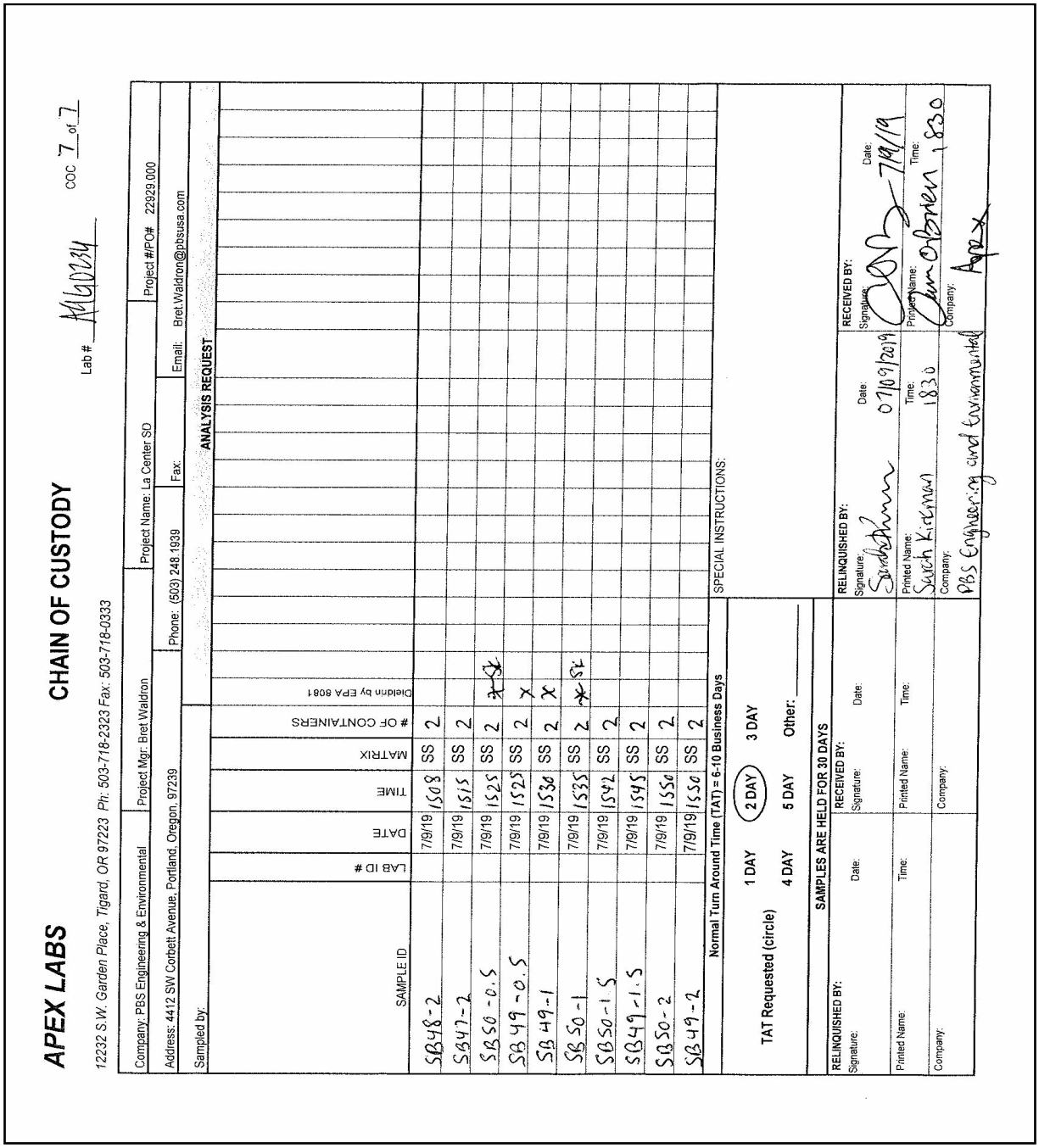
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

COC 7 of 7

Lab # A9G0234

Company: PBS Engineering & Environmental | Project Mgr: Bret Waldron | Project Name: La Center SD | Project #/PO# 22929.000

Address: 4412 SW Corbett Avenue, Portland, Oregon, 97239 | Phone: (503) 248-1939 | Fax: | Email: Bret.Waldron@pbsusa.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	Dieldrin by EPA 8081
SB48-2		7/9/19	1508	SS	2	
SB47-2		7/9/19	1515	SS	2	
SB50-0.5		7/9/19	1525	SS	2	X
SB49-0.5		7/9/19	1525	SS	2	X
SB49-1		7/9/19	1530	SS	2	X
SB50-1		7/9/19	1535	SS	2	X
SB50-1.5		7/9/19	1542	SS	2	
SB49-1.5		7/9/19	1545	SS	2	
SB50-2		7/9/19	1550	SS	2	
SB49-2		7/9/19	1550	SS	2	

Normal Turn Around Time (TAT) = 6-10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY (2 DAY) 3 DAY 4 DAY 5 DAY Other: ____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: | RECEIVED BY: Signature: Date:

RELINQUISHED BY: Signature: Sarah Brunn Date: 07/09/2019 | RECEIVED BY: Signature: Date: 7/9/19

Printed Name: Time: | Printed Name: Time:

Printed Name: Sarah Kirkman Time: 1830 | Printed Name: Time:

Company: | Company:

Company: PBS Engineering and Environmental | Company: Apex 1830

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

PBS Engineering and Environmental	Project: **La Center Middle School**	
4412 SW Corbett Ave	Project Number: **22929.000**	**Report ID:**
Portland, OR 97239	Project Manager: **Bret Waldron**	**A9G0234 - 07 19 19 0854**

APEX LABS COOLER RECEIPT FORM

Client: PBS Element WO#: A9 G0234

Project/Project #: La Center SD / 22929.000

Delivery Info:

Date/time received: 7/19/19 @ 1830 By: AB

Delivered by: Apex ___ Client X ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Date/time inspected: 7/19/19 @ 1830 By: AB

Chain of Custody included? Yes X No ___ Custody seals? Yes ___ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.6	2.1	1.8				
Received on ice? (Y/N)	Y	Y	Y				
Temp. blanks? (Y/N)	Y	Y	Y				
Ice type: (Gel/Real/Other)	Real	Real	Real				
Condition:	good	good	good				

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 7/10/19 @ 11:15 By: MD

All samples intact? Yes Y No ___ Comments:

Bottle labels/COCs agree? Yes X No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments

Water samples: pH checked: Yes ___ No ___ NA X pH appropriate? Yes ___ No ___ NA X

Comments:

Additional information:

Labeled by: KJ Witness: Cooler Inspected by: AB See Project Contact Form: Y

Apex Laboratories

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 17, 2018

PBS Engineering & Env.- POR

Sample Delivery Group:	L1050823
Samples Received:	12/07/2018
Project Number:	22929.000
Description:	La Center

Report To: Bret Waldron
4412 SW Corbett Ave
Portland, OR 97239

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

SB1-1.5 L1050823-01 Solid

Collected by: TL/ML | Collected date/time: 12/05/18 08:36 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208654	1	12/11/18 13:06	12/11/18 13:13	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 10:25	TD

SB2-0.5 L1050823-02 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 08:47 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208654	1	12/11/18 13:06	12/11/18 13:13	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 10:38	TD

SB2-1 L1050823-03 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 08:51 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208654	1	12/11/18 13:06	12/11/18 13:13	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 10:50	TD

SB2-1.5 L1050823-04 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 08:56 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208654	1	12/11/18 13:06	12/11/18 13:13	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 11:03	TD

SB4-0.5 L1050823-05 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 09:21 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 11:15	TD

SB4-1 L1050823-06 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 09:23 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 11:28	TD

SB4-1.5 L1050823-07 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 09:28 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 11:40	TD

SB6-0.5 L1050823-08 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 09:55 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 11:53	TD

SB6-1 L1050823-09 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 10:01 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 12:05	TD

SB6-1.5 L1050823-10 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 10:10 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 12:17	TD

SB8-0.5 L1050823-11 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 10:40 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 12:30	TD

SB8-1 L1050823-12 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 10:46 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 13:07	TD

SB8-1.5 L1050823-13 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 11:51 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 13:19	TD

SB10-1.5 L1050823-14 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 11:54 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208655	1	12/11/18 13:18	12/11/18 13:32	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 13:32	TD

SB11-0.5 L1050823-15 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:01 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208917	1	12/11/18 13:35	12/11/18 13:45	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 13:44	TD

SB11-1 L1050823-16 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:04 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1208917	1	12/11/18 13:35	12/11/18 13:45	KBC
Pesticides (GC) by Method 8081B	WG1209149	1	12/12/18 11:11	12/14/18 13:57	TD

SB11-1.5 L1050823-17 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:09 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 17:16	TD

SB13-0.5 L1050823-18 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:35 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 17:28	TD

SB13-1 L1050823-19 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:41 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 17:41	TD

SB13-1.5 L1050823-20 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 12:47 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 19:21	TD

SB15-0.5 L1050823-21 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:11 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 16:37	TD

SB15-1 L1050823-22 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:16 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 19:33	TD

SB15-1.5 L1050823-23 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:21 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 19:46	TD

SB17-0.5 L1050823-24 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:48 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 19:59	TD

SB17-1 L1050823-25 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:54 | Received date/time: 12/07/18 07:30

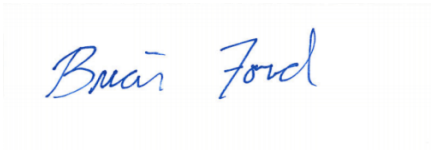
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 20:11	TD

SB17-1.5 L1050823-26 Solid

Collected by: Tommy Laird | Collected date/time: 12/05/18 13:59 | Received date/time: 12/07/18 07:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1209429	1	12/12/18 09:59	12/12/18 10:11	KBC
Pesticides (GC) by Method 8081B	WG1209354	1	12/12/18 06:34	12/12/18 20:23	TD

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.9		1	12/11/2018 13:13	WG1208654

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0254	1	12/14/2018 10:25	WG1209149
(S) Decachlorobiphenyl	*106*		*10.0-135*		*12/14/2018 10:25*	WG1209149
(S) Tetrachloro-m-xylene	*86.1*		*10.0-139*		*12/14/2018 10:25*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.3		1	12/11/2018 13:13	WG1208654

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	12/14/2018 10:38	WG1209149
(S) Decachlorobiphenyl	*102*		*10.0-135*		*12/14/2018 10:38*	WG1209149
(S) Tetrachloro-m-xylene	*85.1*		*10.0-139*		*12/14/2018 10:38*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	12/11/2018 13:13	WG1208654

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	12/14/2018 10:50	WG1209149
(S) Decachlorobiphenyl	*119*		*10.0-135*		*12/14/2018 10:50*	WG1209149
(S) Tetrachloro-m-xylene	*84.5*		*10.0-139*		*12/14/2018 10:50*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.9		1	12/11/2018 13:13	WG1208654

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0257	1	12/14/2018 11:03	WG1209149
(S) Decachlorobiphenyl	*112*		*10.0-135*		*12/14/2018 11:03*	WG1209149
(S) Tetrachloro-m-xylene	*89.7*		*10.0-139*		*12/14/2018 11:03*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.0		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	12/14/2018 11:15	WG1209149
(S) Decachlorobiphenyl	*106*		*10.0-135*		*12/14/2018 11:15*	WG1209149
(S) Tetrachloro-m-xylene	*84.2*		*10.0-139*		*12/14/2018 11:15*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0257	1	12/14/2018 11:28	WG1209149
(S) Decachlorobiphenyl	*112*		*10.0-135*		*12/14/2018 11:28*	WG1209149
(S) Tetrachloro-m-xylene	*88.3*		*10.0-139*		*12/14/2018 11:28*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0257	1	12/14/2018 11:40	WG1209149
(S) Decachlorobiphenyl	*88.9*		*10.0-135*		*12/14/2018 11:40*	WG1209149
(S) Tetrachloro-m-xylene	*85.3*		*10.0-139*		*12/14/2018 11:40*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.9		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0267	1	12/14/2018 11:53	WG1209149
(S) Decachlorobiphenyl	*87.4*		*10.0-135*		*12/14/2018 11:53*	WG1209149
(S) Tetrachloro-m-xylene	*80.6*		*10.0-139*		*12/14/2018 11:53*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	12/14/2018 12:05	WG1209149
(S) Decachlorobiphenyl	*93.3*		*10.0-135*		*12/14/2018 12:05*	WG1209149
(S) Tetrachloro-m-xylene	*86.4*		*10.0-139*		*12/14/2018 12:05*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.2		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	12/14/2018 12:17	WG1209149
(S) Decachlorobiphenyl	*88.8*		*10.0-135*		*12/14/2018 12:17*	WG1209149
(S) Tetrachloro-m-xylene	*84.3*		*10.0-139*		*12/14/2018 12:17*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.5		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0261	1	12/14/2018 12:30	WG1209149
(S) Decachlorobiphenyl	*95.1*		*10.0-135*		*12/14/2018 12:30*	WG1209149
(S) Tetrachloro-m-xylene	*83.6*		*10.0-139*		*12/14/2018 12:30*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/14/2018 13:07	WG1209149
(S) Decachlorobiphenyl	*91.6*		*10.0-135*		*12/14/2018 13:07*	WG1209149
(S) Tetrachloro-m-xylene	*87.4*		*10.0-139*		*12/14/2018 13:07*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.0		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0257	1	12/14/2018 13:19	WG1209149
(S) Decachlorobiphenyl	*98.6*		*10.0-135*		*12/14/2018 13:19*	WG1209149
(S) Tetrachloro-m-xylene	*89.9*		*10.0-139*		*12/14/2018 13:19*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.3		1	12/11/2018 13:32	WG1208655

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0252	1	12/14/2018 13:32	WG1209149
(S) Decachlorobiphenyl	*83.8*		*10.0-135*		*12/14/2018 13:32*	WG1209149
(S) Tetrachloro-m-xylene	*83.3*		*10.0-139*		*12/14/2018 13:32*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.2		1	12/11/2018 13:45	WG1208917

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	12/14/2018 13:44	WG1209149
(S) Decachlorobiphenyl	*97.2*		*10.0-135*		*12/14/2018 13:44*	WG1209149
(S) Tetrachloro-m-xylene	*88.1*		*10.0-139*		*12/14/2018 13:44*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.3		1	12/11/2018 13:45	WG1208917

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/14/2018 13:57	WG1209149
(S) Decachlorobiphenyl	*100*		*10.0-135*		*12/14/2018 13:57*	WG1209149
(S) Tetrachloro-m-xylene	*87.7*		*10.0-139*		*12/14/2018 13:57*	WG1209149

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.6		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/12/2018 17:16	WG1209354
(S) Decachlorobiphenyl	*63.3*		*10.0-135*		*12/12/2018 17:16*	WG1209354
(S) Tetrachloro-m-xylene	*59.0*		*10.0-139*		*12/12/2018 17:16*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.2		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	12/12/2018 17:28	WG1209354
(S) Decachlorobiphenyl	*63.4*		*10.0-135*		*12/12/2018 17:28*	WG1209354
(S) Tetrachloro-m-xylene	*59.3*		*10.0-139*		*12/12/2018 17:28*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.1		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0253	1	12/12/2018 17:41	WG1209354
(S) Decachlorobiphenyl	*71.9*		*10.0-135*		*12/12/2018 17:41*	WG1209354
(S) Tetrachloro-m-xylene	*63.7*		*10.0-139*		*12/12/2018 17:41*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.0		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0253	1	12/12/2018 19:21	WG1209354
(S) Decachlorobiphenyl	*64.0*		*10.0-135*		*12/12/2018 19:21*	WG1209354
(S) Tetrachloro-m-xylene	*60.4*		*10.0-139*		*12/12/2018 19:21*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	12/12/2018 16:37	WG1209354
(S) Decachlorobiphenyl	*62.5*		*10.0-135*		*12/12/2018 16:37*	WG1209354
(S) Tetrachloro-m-xylene	*60.7*		*10.0-139*		*12/12/2018 16:37*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.6		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/12/2018 19:33	WG1209354
(S) Decachlorobiphenyl	*75.2*		*10.0-135*		*12/12/2018 19:33*	WG1209354
(S) Tetrachloro-m-xylene	*64.5*		*10.0-139*		*12/12/2018 19:33*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.0		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0253	1	12/12/2018 19:46	WG1209354
(S) Decachlorobiphenyl	*69.7*		*10.0-135*		*12/12/2018 19:46*	WG1209354
(S) Tetrachloro-m-xylene	*62.7*		*10.0-139*		*12/12/2018 19:46*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.2		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0344		0.0256	1	12/12/2018 19:59	WG1209354
(S) Decachlorobiphenyl	*72.6*		*10.0-135*		*12/12/2018 19:59*	WG1209354
(S) Tetrachloro-m-xylene	*63.9*		*10.0-139*		*12/12/2018 19:59*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.5		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/12/2018 20:11	WG1209354
(S) Decachlorobiphenyl	*68.3*		*10.0-135*		*12/12/2018 20:11*	WG1209354
(S) Tetrachloro-m-xylene	*63.7*		*10.0-139*		*12/12/2018 20:11*	WG1209354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.3		1	12/12/2018 10:11	WG1209429

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	12/12/2018 20:23	WG1209354
(S) Decachlorobiphenyl	*65.3*		*10.0-135*		*12/12/2018 20:23*	WG1209354
(S) Tetrachloro-m-xylene	*60.5*		*10.0-139*		*12/12/2018 20:23*	WG1209354

Method Blank (MB)

(MB) R3367392-1 12/11/18 13:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

L1050823-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1050823-04 12/11/18 13:13 • (DUP) R3367392-3 12/11/18 13:13

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	77.9	77.7	1	0.195		10

Laboratory Control Sample (LCS)

(LCS) R3367392-2 12/11/18 13:13

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3367401-1 12/11/18 13:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00200			

L1050823-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1050823-05 12/11/18 13:32 • (DUP) R3367401-3 12/11/18 13:32

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	77.0	75.6	1	1.91		10

Laboratory Control Sample (LCS)

(LCS) R3367401-2 12/11/18 13:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3367406-1 12/11/18 13:45

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.000			

L1050763-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1050763-11 12/11/18 13:45 • (DUP) R3367406-3 12/11/18 13:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	92.9	92.0	1	0.899		10

Laboratory Control Sample (LCS)

(LCS) R3367406-2 12/11/18 13:45

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3367797-1 12/12/18 10:11

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1050823-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1050823-17 12/12/18 10:11 • (DUP) R3367797-3 12/12/18 10:11

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	78.6	79.3	1	0.953		10

Laboratory Control Sample (LCS)

(LCS) R3367797-2 12/12/18 10:11

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3368392-1 12/14/18 09:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*106*			*10.0-135*
(S) Tetrachloro-m-xylene	*91.7*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3368392-2 12/14/18 10:01 • (LCSD) R3368392-3 12/14/18 10:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0569	0.0611	85.4	91.7	35.0-137			7.12	37
(S) Decachlorobiphenyl				*103*	*115*	*10.0-135*				
(S) Tetrachloro-m-xylene				*89.6*	*89.8*	*10.0-139*				

L1050823-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1050823-11 12/14/18 12:30 • (MS) R3368392-4 12/14/18 12:42 • (MSD) R3368392-5 12/14/18 12:54

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0870	ND	0.0773	0.0615	83.7	65.6	1	17.0-145			22.8	37
(S) Decachlorobiphenyl					*99.7*	*85.9*		*10.0-135*				
(S) Tetrachloro-m-xylene					*84.8*	*89.8*		*10.0-139*				

Method Blank (MB)

(MB) R3367992-3 12/12/18 12:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*82.0*			*10.0-135*
(S) Tetrachloro-m-xylene	*75.8*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3367992-1 12/12/18 12:01 • (LCSD) R3367992-2 12/12/18 12:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0539	0.0557	80.9	83.6	35.0-137			3.28	37
(S) Decachlorobiphenyl				*75.2*	*81.8*	*10.0-135*				
(S) Tetrachloro-m-xylene				*72.5*	*75.7*	*10.0-139*				

L1050823-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1050823-21 12/12/18 16:37 • (MS) R3367992-4 12/12/18 16:49 • (MSD) R3367992-5 12/12/18 17:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0867	ND	0.0509	0.0639	45.0	60.0	1	17.0-145			22.7	37
(S) Decachlorobiphenyl					*68.2*	*68.6*		*10.0-135*				
(S) Tetrachloro-m-xylene					*61.9*	*62.6*		*10.0-139*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

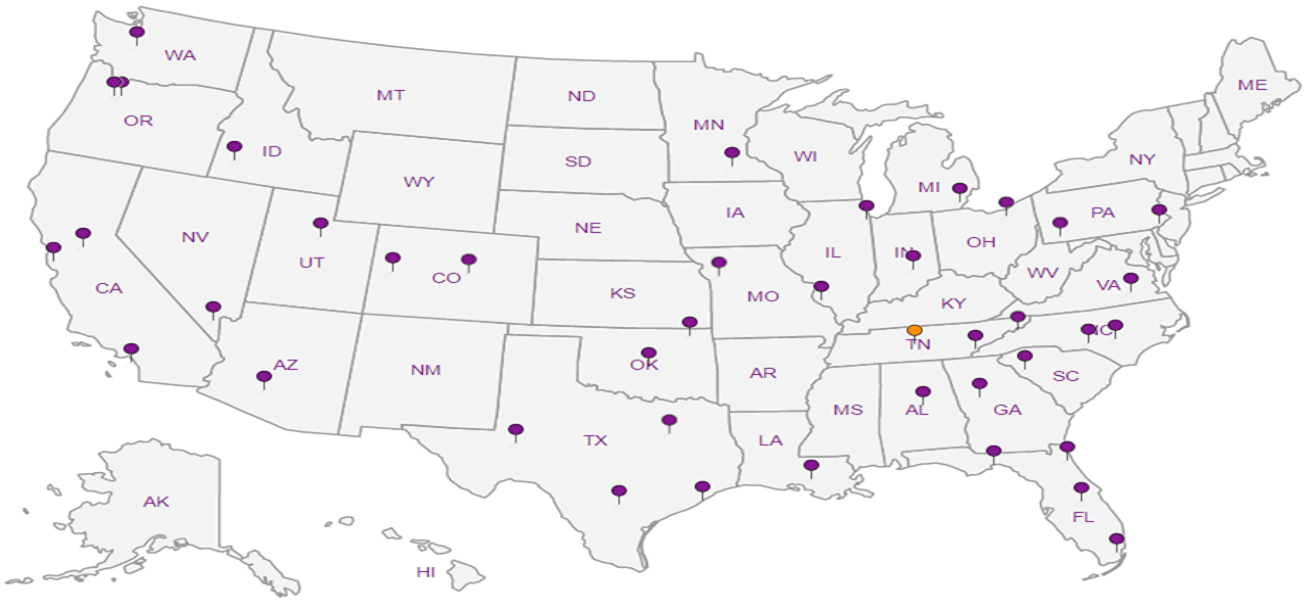
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Email To: bret.waldron@pbsusa.com

Report to: Bret Waldron

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project # PBSENGPOR-22929000

Collected by (print): Tammy Laird

Site/Facility ID #

P.O. #

Collected by (signature): Tammy Laird

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin (SV8081) 8oz Clr-NoPres	Remarks	Sample # (lab only)
SB1-1.5	Grab	SS	1.5	12/5/18	0836	1	X		-01
SB2-0.5		SS	0.5		0847	1			-02
SB2-1.		SS	1		0851				-03
SB2-1.5		SS	1.5		0856				-04
SB4-0.5		SS	0.5		0921				-05
SB4-1		SS	1		0923				-06
SB4-1.5		SS	1.5		0928				-07
SB6-0.5		SS	0.5		0955				-08
SB6-1		SS	1		1001				-09
SB6-1.5	↓	SS	1.5	↓	1010	↓	↓		-10

Chain of Custody Page 1 of 6

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1050823

G095

Acctnum: PBSENGPOR
Template: T143652
Prelogin: P683315
TSR: 110 - Brian Ford
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Cooler 1 of 2

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

	Date:	Time:	
Relinquished by: (Signature) Tammy Laird	12/6/18	0845	Received by: (Signature) ESCPou
Relinquished by: (Signature) ESCPou	12/6/18	1200	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TSR

Temp: 0.4 °C Bottles Received: 50
1.2 0.5 42

Date: 12/7/18 Time: 845 730

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Bret Waldron

Email To: bret.waldron@pbsusa.com

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project #: 22929.000

Lab Project #: PBSENGPOR-22929000

L#: L1050823

Table #

Collected by (print): Tommy Laird

Site/Facility ID #

P.O. #

Acctnum: PBSENGPOR
Template: T143652
Prelogin: P683315
TSR: 110 - Brian Ford
PB:
Shipped Via:

Collected by (signature): Tommy Laird

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Immediately Packed on Ice N ___ Y ✓

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin (SV8081) 8ozClr-NoPres	Remarks	Sample # (lab only)
SB8-0.5	Grab	SS	0.5	12/5/18	~~1046~~ 1040	1	X		-11
SB8-1	↓	SS	1	↓	1046	↓	↓		-12
SB8-1.5	↓	SS	1.5	↓	1051	↓	↓		-13
SB10-1.5	↓	SS	1.5	↓	1154	↓	↓		-14
SB11-0.5	↓	SS	0.5	↓	1201	↓	↓		-15
SB11-1	↓	SS	1	↓	1204	↓	↓		-16
SB11-1.5	↓	SS	1.5	↓	1209	↓	↓		-17
SB13-0.5	↓	SS	0.5	↓	1235	↓	↓		-18
SB13-1	↓	SS	1	↓	1241	↓	↓		-19
SB13-1.5	↓	SS	1.5	↓	1247	↓	↓		-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ________

Remarks: Cooler 1 of 2

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier __ ______

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Tommy Laird	12/6/18	0845	[signature] Escalon	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.4 °C 1.2 0.8 ; Bottles Received: 50
[signature] Escalon	12/6/18	1200		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/7/18 Time: 830
			[signature]	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: bret.waldron@pbsusa.com

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project # PBSENGPOR-22929000

Collected by (print): Tommy Laird

Site/Facility ID #

P.O. #

Collected by (signature): Tommy Laird

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Chain of Custody Page 3 of ___

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # L1050823

Table #

Acctnum: PBSENGPOR

Template: T143652

Prelogin: P683315

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin (SV8081) 8ozClr-NoPres	Remarks	Sample # (lab only)
SB15-0.5	Grab	SS	0.5	12/5/18	1311	1	X		-21
SB15-1	↓	SS	1	↓	1316	1	↓		-22
SB15-1.5		SS	1.5		1321				-23
SB17-0.5		SS	0.5		1348				-24
SB17-1		SS	1		1354				-25
SB17-1.5	↓	SS	1.5	↓	1359	↓	↓		-26
		SS							
		SS							
		SS							
		SS							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Cooler 1 of 2

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Tommy Laird	12/6/18	0845	ESCHON
ESCHON	12/6/18	1200	

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 0.4 °C 1.2 0.8 m Bottles Received: 50

If preservation required by Login: Date/Time

Received for lab by: (Signature) Date: 12/7/18 Time: 730

Hold: Condition: NCF / OK

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland,OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: bret.waldron@pbsusa.com

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project # PBSENGPOR-22929000

Collected by (print): Marley Luke

Site/Facility ID #

P.O. #

Collected by (signature): Marley Luke

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Analysis / Container / Preservative

Chain of Custody Page 4 of 6

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L050823

Table #

Acctnum: PBSENGPOR

Template: T143652

Prelogin: P683315

TSR: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin (SV8081) 8ozClr-NoPres	Hold	Remarks	Sample # (lab only)
SB3-0.5	Grab	SS	0.5	12/5/18	0902	1	*	X		-27
SB3-1		SS	1		0906	1				-28
SB3-1.5		SS	1.5		0913	1				-29
SB5-0.5		SS	0.5		0935	1				-30
SB5-1		SS	1		0941	1				-31
SB5-1.5		SS	1.5		0946	1				-32
SB7-0.5		SS	0.5		1019	1				-33
SB7-1		SS	1		1026	1				-34
SB7-1.5		SS	1.5		1033	1				-35
SB9-0.5	↓	SS	0.5	↓	1059	↓	↓	↓		-36

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: extract and hold samples
cooler 2 of 2

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y / N
COC Signed/Accurate:		Y / N
Bottles arrive intact:		Y / N
Correct bottles used:		Y / N
Sufficient volume sent:		Y / N
If Applicable		
VOA Zero Headspace:		Y / N
Preservation Correct/Checked:		Y / N

RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Tonny Faint	12/6/18	0845	ESCPou
ESCPou	12/6/18	1200	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp 0.4 °C 1.2 0.8 Bottles Received: 50

Date: 12/7/18 Time: 730

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: bret.waldron@pbsusa.com

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project # PBSENGPOR-22929000

Collected by (print): Marley Luke

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	Dieldrin (SV8081) 8ozClr-NoPres	HOLD
SB9 - 1	Grab	SS	1	12/5/18	1103	1		X
SB9 - 1.5		SS	1.5		1110			
SB12 - 0.5		SS	0.5		1216			
SB12 - 1		SS	1		1221			
SB12 - 1.5		SS	1.5		1227			
SB14 - 0.5		SS	0.5		1254			
SB14 - 1		SS	1		1258			
SB14 - 1.5		SS	1.5		1303			
SB16 - 0.5		SS	0.5		1330			
SB16 - 1		SS	1		1336			

Analysis / Container / Preservative

Chain of Custody Page 5 of 6

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1050923

Table #

Acctnum: PBSENGPOR
Template: T143652
Prelogin: P683315
TSR: 110 - Brian Ford
PB:

Shipped Via:

Remarks	Sample # (lab only)
	-37
	-38
	-39
	-40
	-41
	-42
	-43
	-44
	-45
	-46

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: extract & hold samples
cooler 2 of 2

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Tommy Jamil	12/6/18	0845	ESCAN
ESCAN	12/6/18	1200	

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.4 °C 1.2 0.8 Bottles Received: 50

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Received for lab by: (Signature)
Date: 12/7/18 Time: 730

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: bret.waldron@pbsusa.com

Project Description: La Center

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project # PBSENGPOR-22929000

Collected by (print): Marley Luke

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin (SV8081) 8ozClr-NoPres	HOLD
SB16-1.5	grab	SS	1.5	12/5/18	1342	1		X
SB18-0.5	↓	SS	0.5	↓	1408	↓		↓
SB18-1	↓	SS	1	↓	1412	↓		↓
SB18-1.5	↓	SS	1.5	↓	1419	↓		↓
		SS						

Analysis / Container / Preservative

Chain of Custody Page 6 of 6

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1050823

Table #

Acctnum: PBSENGPOR

Template: T143652

Prelogin: P683315

TSR: 110 - Brian Ford

PB:

Shipped Via:

Remarks	Sample # (lab only)
	-47
	-48
	-49
	-50

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: extract & hold samples
Cooler 2 of 2

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
PAD SCREEN

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Tommy Faircloth	12/6/18	0845	RAKE ESCAN
RAKE ESCAN	12/6/18	1200	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 0.4 °C 1,20,8 Bottles Received: 50

Date: 12/7/18 Time: 730

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 08, 2019

PBS Engineering & Env.- POR

Sample Delivery Group:	L1065475
Samples Received:	01/30/2019
Project Number:	22929.000
Description:	La Center MS

Report To: Bret Waldron
4412 SW Corbett Ave
Portland, OR 97239

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

SB-1-0.5 L1065475-01 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:37 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/03/19 17:06	VKS

SB-1-1 L1065475-02 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:40 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/03/19 17:19	VKS

SB-10-0.5 L1065475-03 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:23 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 16:24	VKS

SB-10-1 L1065475-04 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:25 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 16:37	VKS

SB-19-0.5 L1065475-05 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:45 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 11:04	VKS

SB-19-1 L1065475-06 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:48 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 11:41	VKS

SB-19-1.5 L1065475-07 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:52 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 11:54	VKS

SB-20-0.5 L1065475-08 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 10:59 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230989	1	02/01/19 15:17	02/02/19 14:13	TD

SB-20-1 L1065475-09 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:03 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230989	1	02/01/19 15:17	02/02/19 14:25	TD

SB-20-1.5 L1065475-10 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:06 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230968	1	02/01/19 10:30	02/01/19 10:30	JD
Pesticides (GC) by Method 8081B	WG1230989	1	02/01/19 15:17	02/02/19 14:38	TD

SB-21-0.5 L1065475-11 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:11 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 12:06	VKS

SB-21-1 L1065475-12 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:15 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 12:19	VKS

SB-21-1.5 L1065475-13 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:17 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 12:31	VKS

SB-22-0.5 L1065475-14 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:23 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/03/19 17:31	VKS

SB-22-1 L1065475-15 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:27 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 17:01	VKS

SB-22-1.5 L1065475-16 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:31 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 17:39	VKS

SB-23-0.5 L1065475-17 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:39 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 12:44	VKS

SB-23-1 L1065475-18 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:43 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 12:56	VKS

SB-23-1.5 L1065475-19 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:47 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 13:09	VKS

SB-24-0.5 L1065475-20 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:53 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230969	1	02/01/19 10:12	02/01/19 10:26	JD
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 17:51	VKS

SB-24-1 L1065475-21 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 11:57 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 18:04	VKS

SB-24-1.5 L1065475-22 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:00 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 18:16	VKS

SB-25-0.5 L1065475-23 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:08 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 13:21	VKS

SB-25-1 L1065475-24 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:11 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 13:33	VKS

SB-25-1.5 L1065475-25 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:16 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 13:46	VKS

SB-26-0.5 L1065475-26 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:28 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1230992	1.1	02/02/19 11:47	02/02/19 18:28	VKS

SB-26-1 L1065475-27 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:34 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/03/19 17:43	VKS

SB-26-1.5 L1065475-28 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 12:38 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 18:53	VKS

SB-27-0.5 L1065475-29 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:31 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 13:58	VKS

SB-27-1 L1065475-30 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:36 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230970	1	02/01/19 13:44	02/01/19 13:54	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 14:11	VKS

SB-27-1.5 L1065475-31 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:43 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 14:23	VKS

SB-28-0.5 L1065475-32 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:49 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 19:06	VKS

SB-28-1 L1065475-33 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 13:56 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 19:18	VKS

SB-28-1.5 L1065475-34 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:01 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 19:30	VKS

SB-29-0.5 L1065475-35 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:08 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 14:35	VKS

SB-29-1 L1065475-36 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:12 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 14:48	VKS

SB-29-1.5 L1065475-37 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:15 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 15:00	VKS

SB-30-0.5 L1065475-38 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:19 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 19:43	VKS

SB-30-1 L1065475-39 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:22 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/02/19 19:55	VKS

SB-30-1.5 L1065475-40 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:25 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230971	1	02/01/19 13:28	02/01/19 13:40	KBC
Pesticides (GC) by Method 8081B	WG1230992	1	02/02/19 11:47	02/03/19 17:56	VKS

SB-31-0.5 L1065475-41 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:30 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 15:13	VKS

SB-31-1 L1065475-42 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:33 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232791	1	02/05/19 21:27	02/06/19 15:25	VKS

SB-31-1.5 L1065475-43 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:36 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232793	1	02/05/19 21:30	02/06/19 18:44	VKS

SB-32-0.5 L1065475-44 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:40 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 18:08	VKS

SB-32-1 L1065475-45 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:43 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 18:21	VKS

SB-32-1.5 L1065475-46 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:48 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 18:33	VKS

SB-33-0.5 L1065475-47 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:54 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232793	1	02/05/19 21:30	02/06/19 18:58	VKS

SB-33-1 L1065475-48 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 14:57 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232793	1	02/05/19 21:30	02/06/19 19:42	VKS

SB-33-1.5 L1065475-49 Solid

Collected by: Matt Randall | Collected date/time: 01/28/19 15:02 | Received date/time: 01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1232793	1	02/05/19 21:30	02/06/19 19:57	VKS

SB-34-0.5 L1065475-50 Solid

Collected by	Collected date/time	Received date/time
Matt Randall	01/28/19 15:09	01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230972	1	02/01/19 13:01	02/01/19 13:12	KBC
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 18:46	VKS

SB-34-1 L1065475-51 Solid

Collected by	Collected date/time	Received date/time
Matt Randall	01/28/19 15:12	01/30/19 08:45

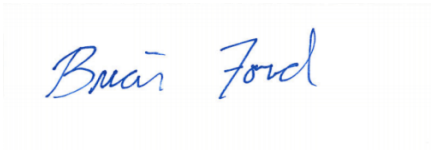
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230974	1	02/01/19 14:38	02/01/19 14:45	JD
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 18:58	VKS

SB-34-1.5 L1065475-52 Solid

Collected by	Collected date/time	Received date/time
Matt Randall	01/28/19 15:20	01/30/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1230974	1	02/01/19 14:38	02/01/19 14:45	JD
Pesticides (GC) by Method 8081B	WG1231668	1	02/02/19 15:21	02/03/19 19:10	VKS

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.9		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0336		0.0264	1	02/03/2019 17:06	WG1230992
(S) Decachlorobiphenyl	*78.8*		*10.0-135*		*02/03/2019 17:06*	WG1230992
(S) Tetrachloro-m-xylene	*79.6*		*10.0-139*		*02/03/2019 17:06*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0443		0.0252	1	02/03/2019 17:19	WG1230992
(S) Decachlorobiphenyl	*56.5*		*10.0-135*		*02/03/2019 17:19*	WG1230992
(S) Tetrachloro-m-xylene	*64.7*		*10.0-139*		*02/03/2019 17:19*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.2		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0263	1	02/02/2019 16:24	WG1230992
(S) Decachlorobiphenyl	*39.3*		*10.0-135*		*02/02/2019 16:24*	WG1230992
(S) Tetrachloro-m-xylene	*58.2*		*10.0-139*		*02/02/2019 16:24*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.2		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	02/02/2019 16:37	WG1230992
(S) Decachlorobiphenyl	*55.6*		*10.0-135*		*02/02/2019 16:37*	WG1230992
(S) Tetrachloro-m-xylene	*72.4*		*10.0-139*		*02/02/2019 16:37*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.6		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0415	J3	0.0264	1	02/06/2019 11:04	WG1232791
(S) Decachlorobiphenyl	*45.7*		*10.0-135*		*02/06/2019 11:04*	WG1232791
(S) Tetrachloro-m-xylene	*55.8*		*10.0-139*		*02/06/2019 11:04*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0380		0.0255	1	02/06/2019 11:41	WG1232791
(S) Decachlorobiphenyl	*39.4*		*10.0-135*		*02/06/2019 11:41*	WG1232791
(S) Tetrachloro-m-xylene	*48.5*		*10.0-139*		*02/06/2019 11:41*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.5		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	02/06/2019 11:54	WG1232791
(S) Decachlorobiphenyl	*24.2*		*10.0-135*		*02/06/2019 11:54*	WG1232791
(S) Tetrachloro-m-xylene	*25.8*		*10.0-139*		*02/06/2019 11:54*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0374		0.0257	1	02/02/2019 14:13	WG1230989
(S) Decachlorobiphenyl	*94.1*		*10.0-135*		*02/02/2019 14:13*	WG1230989
(S) Tetrachloro-m-xylene	*91.1*		*10.0-139*		*02/02/2019 14:13*	WG1230989

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0316		0.0256	1	02/02/2019 14:25	WG1230989
(S) Decachlorobiphenyl	*76.1*		*10.0-135*		*02/02/2019 14:25*	WG1230989
(S) Tetrachloro-m-xylene	*84.7*		*10.0-139*		*02/02/2019 14:25*	WG1230989

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.8		1	02/01/2019 10:30	WG1230968

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0254	1	02/02/2019 14:38	WG1230989
(S) Decachlorobiphenyl	*86.9*		*10.0-135*		*02/02/2019 14:38*	WG1230989
(S) Tetrachloro-m-xylene	*88.0*		*10.0-139*		*02/02/2019 14:38*	WG1230989

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.3		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0269		0.0262	1	02/06/2019 12:06	WG1232791
(S) Decachlorobiphenyl	*40.3*		*10.0-135*		*02/06/2019 12:06*	WG1232791
(S) Tetrachloro-m-xylene	*43.3*		*10.0-139*		*02/06/2019 12:06*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.6		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0258	1	02/06/2019 12:19	WG1232791
(S) Decachlorobiphenyl	*38.4*		*10.0-135*		*02/06/2019 12:19*	WG1232791
(S) Tetrachloro-m-xylene	*48.5*		*10.0-139*		*02/06/2019 12:19*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.0		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0253	1	02/06/2019 12:31	WG1232791
(S) Decachlorobiphenyl	*39.6*		*10.0-135*		*02/06/2019 12:31*	WG1232791
(S) Tetrachloro-m-xylene	*42.6*		*10.0-139*		*02/06/2019 12:31*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.1		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0371		0.0259	1	02/03/2019 17:31	WG1230992
(S) Decachlorobiphenyl	*39.2*		*10.0-135*		*02/03/2019 17:31*	WG1230992
(S) Tetrachloro-m-xylene	*55.4*		*10.0-139*		*02/03/2019 17:31*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	02/02/2019 17:01	WG1230992
(S) Decachlorobiphenyl	*30.8*		*10.0-135*		*02/02/2019 17:01*	WG1230992
(S) Tetrachloro-m-xylene	*50.9*		*10.0-139*		*02/02/2019 17:01*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.1		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0253	1	02/02/2019 17:39	WG1230992
(S) Decachlorobiphenyl	*41.4*		*10.0-135*		*02/02/2019 17:39*	WG1230992
(S) Tetrachloro-m-xylene	*60.2*		*10.0-139*		*02/02/2019 17:39*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.5		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0258	1	02/06/2019 12:44	WG1232791
(S) Decachlorobiphenyl	*26.9*		*10.0-135*		*02/06/2019 12:44*	WG1232791
(S) Tetrachloro-m-xylene	*37.0*		*10.0-139*		*02/06/2019 12:44*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.8		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0413		0.0254	1	02/06/2019 12:56	WG1232791
(S) Decachlorobiphenyl	*48.2*		*10.0-135*		*02/06/2019 12:56*	WG1232791
(S) Tetrachloro-m-xylene	*54.4*		*10.0-139*		*02/06/2019 12:56*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0270		0.0253	1	02/06/2019 13:09	WG1232791
(S) Decachlorobiphenyl	*50.7*		*10.0-135*		*02/06/2019 13:09*	WG1232791
(S) Tetrachloro-m-xylene	*58.2*		*10.0-139*		*02/06/2019 13:09*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.6		1	02/01/2019 10:26	WG1230969

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0272	1	02/02/2019 17:51	WG1230992
(S) Decachlorobiphenyl	*65.2*		*10.0-135*		*02/02/2019 17:51*	WG1230992
(S) Tetrachloro-m-xylene	*78.2*		*10.0-139*		*02/02/2019 17:51*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	02/02/2019 18:04	WG1230992
(S) Decachlorobiphenyl	*65.4*		*10.0-135*		*02/02/2019 18:04*	WG1230992
(S) Tetrachloro-m-xylene	*78.9*		*10.0-139*		*02/02/2019 18:04*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.3		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0262	1	02/02/2019 18:16	WG1230992
(S) Decachlorobiphenyl	*79.8*		*10.0-135*		*02/02/2019 18:16*	WG1230992
(S) Tetrachloro-m-xylene	*85.4*		*10.0-139*		*02/02/2019 18:16*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0293		0.0262	1	02/06/2019 13:21	WG1232791
(S) Decachlorobiphenyl	*53.2*		*10.0-135*		*02/06/2019 13:21*	WG1232791
(S) Tetrachloro-m-xylene	*58.3*		*10.0-139*		*02/06/2019 13:21*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.0		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	02/06/2019 13:33	WG1232791
(S) Decachlorobiphenyl	*39.8*		*10.0-135*		*02/06/2019 13:33*	WG1232791
(S) Tetrachloro-m-xylene	*36.9*		*10.0-139*		*02/06/2019 13:33*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.2		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	02/06/2019 13:46	WG1232791
(S) Decachlorobiphenyl	*60.6*		*10.0-135*		*02/06/2019 13:46*	WG1232791
(S) Tetrachloro-m-xylene	*61.7*		*10.0-139*		*02/06/2019 13:46*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.7		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0298	1.1	02/02/2019 18:28	WG1230992
(S) Decachlorobiphenyl	*46.9*		*10.0-135*		*02/02/2019 18:28*	WG1230992
(S) Tetrachloro-m-xylene	*63.1*		*10.0-139*		*02/02/2019 18:28*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.6		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	0.0401		0.0254	1	02/03/2019 17:43	WG1230992
(S) Decachlorobiphenyl	*94.1*		*10.0-135*		*02/03/2019 17:43*	WG1230992
(S) Tetrachloro-m-xylene	*82.1*		*10.0-139*		*02/03/2019 17:43*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0255	1	02/02/2019 18:53	WG1230992
(S) Decachlorobiphenyl	*60.0*		*10.0-135*		*02/02/2019 18:53*	WG1230992
(S) Tetrachloro-m-xylene	*75.2*		*10.0-139*		*02/02/2019 18:53*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0262	1	02/06/2019 13:58	WG1232791
(S) Decachlorobiphenyl	*57.3*		*10.0-135*		*02/06/2019 13:58*	WG1232791
(S) Tetrachloro-m-xylene	*53.2*		*10.0-139*		*02/06/2019 13:58*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	02/01/2019 13:54	WG1230970

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0261	1	02/06/2019 14:11	WG1232791
(S) Decachlorobiphenyl	*35.8*		*10.0-135*		*02/06/2019 14:11*	WG1232791
(S) Tetrachloro-m-xylene	*35.8*		*10.0-139*		*02/06/2019 14:11*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.8		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	02/06/2019 14:23	WG1232791
(S) Decachlorobiphenyl	*28.5*		*10.0-135*		*02/06/2019 14:23*	WG1232791
(S) Tetrachloro-m-xylene	*30.8*		*10.0-139*		*02/06/2019 14:23*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.8		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0264	1	02/02/2019 19:06	WG1230992
(S) Decachlorobiphenyl	*48.5*		*10.0-135*		*02/02/2019 19:06*	WG1230992
(S) Tetrachloro-m-xylene	*70.4*		*10.0-139*		*02/02/2019 19:06*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0262	1	02/02/2019 19:18	WG1230992
(S) Decachlorobiphenyl	*51.3*		*10.0-135*		*02/02/2019 19:18*	WG1230992
(S) Tetrachloro-m-xylene	*63.7*		*10.0-139*		*02/02/2019 19:18*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.4		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0265	1	02/02/2019 19:30	WG1230992
(S) Decachlorobiphenyl	*53.5*		*10.0-135*		*02/02/2019 19:30*	WG1230992
(S) Tetrachloro-m-xylene	*67.7*		*10.0-139*		*02/02/2019 19:30*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.6		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0264	1	02/06/2019 14:35	WG1232791
(S) Decachlorobiphenyl	*20.2*		*10.0-135*		*02/06/2019 14:35*	WG1232791
(S) Tetrachloro-m-xylene	*21.5*		*10.0-139*		*02/06/2019 14:35*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	02/06/2019 14:48	WG1232791
(S) Decachlorobiphenyl	*28.1*		*10.0-135*		*02/06/2019 14:48*	WG1232791
(S) Tetrachloro-m-xylene	*31.4*		*10.0-139*		*02/06/2019 14:48*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.1		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	02/06/2019 15:00	WG1232791
(S) Decachlorobiphenyl	*52.9*		*10.0-135*		*02/06/2019 15:00*	WG1232791
(S) Tetrachloro-m-xylene	*49.8*		*10.0-139*		*02/06/2019 15:00*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0262	1	02/02/2019 19:43	WG1230992
(S) Decachlorobiphenyl	*70.9*		*10.0-135*		*02/02/2019 19:43*	WG1230992
(S) Tetrachloro-m-xylene	*81.2*		*10.0-139*		*02/02/2019 19:43*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.3		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0266	1	02/02/2019 19:55	WG1230992
(S) Decachlorobiphenyl	*60.2*		*10.0-135*		*02/02/2019 19:55*	WG1230992
(S) Tetrachloro-m-xylene	*71.8*		*10.0-139*		*02/02/2019 19:55*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.6		1	02/01/2019 13:40	WG1230971

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0268	1	02/03/2019 17:56	WG1230992
(S) Decachlorobiphenyl	*70.9*		*10.0-135*		*02/03/2019 17:56*	WG1230992
(S) Tetrachloro-m-xylene	*70.1*		*10.0-139*		*02/03/2019 17:56*	WG1230992

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0261	1	02/06/2019 15:13	WG1232791
(S) Decachlorobiphenyl	*18.9*		*10.0-135*		*02/06/2019 15:13*	WG1232791
(S) Tetrachloro-m-xylene	*21.7*		*10.0-139*		*02/06/2019 15:13*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	75.9		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0264	1	02/06/2019 15:25	WG1232791
(S) Decachlorobiphenyl	*33.8*		*10.0-135*		*02/06/2019 15:25*	WG1232791
(S) Tetrachloro-m-xylene	*37.4*		*10.0-139*		*02/06/2019 15:25*	WG1232791

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.2		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	02/06/2019 18:44	WG1232793
(S) Decachlorobiphenyl	*28.2*		*10.0-135*		*02/06/2019 18:44*	WG1232793
(S) Tetrachloro-m-xylene	*36.7*		*10.0-139*		*02/06/2019 18:44*	WG1232793

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0261	1	02/03/2019 18:08	WG1231668
(S) Decachlorobiphenyl	*54.5*		*10.0-135*		*02/03/2019 18:08*	WG1231668
(S) Tetrachloro-m-xylene	*59.0*		*10.0-139*		*02/03/2019 18:08*	WG1231668

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	02/03/2019 18:21	WG1231668
(S) Decachlorobiphenyl	*62.6*		*10.0-135*		*02/03/2019 18:21*	WG1231668
(S) Tetrachloro-m-xylene	*66.6*		*10.0-139*		*02/03/2019 18:21*	WG1231668

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.1		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0263	1	02/03/2019 18:33	WG1231668
(S) Decachlorobiphenyl	*80.8*		*10.0-135*		*02/03/2019 18:33*	WG1231668
(S) Tetrachloro-m-xylene	*70.0*		*10.0-139*		*02/03/2019 18:33*	WG1231668

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.1		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	02/06/2019 18:58	WG1232793
(S) Decachlorobiphenyl	*18.3*		*10.0-135*		*02/06/2019 18:58*	WG1232793
(S) Tetrachloro-m-xylene	*38.5*		*10.0-139*		*02/06/2019 18:58*	WG1232793

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.8		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND	P	0.0257	1	02/06/2019 19:42	WG1232793
(S) Decachlorobiphenyl	*39.3*		*10.0-135*		*02/06/2019 19:42*	WG1232793
(S) Tetrachloro-m-xylene	*54.5*		*10.0-139*		*02/06/2019 19:42*	WG1232793

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.3		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0262	1	02/06/2019 19:57	WG1232793
(S) Decachlorobiphenyl	*26.4*		*10.0-135*		*02/06/2019 19:57*	WG1232793
(S) Tetrachloro-m-xylene	*43.0*		*10.0-139*		*02/06/2019 19:57*	WG1232793

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.0		1	02/01/2019 13:12	WG1230972

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0256	1	02/03/2019 18:46	WG1231668
(S) Decachlorobiphenyl	*47.7*		*10.0-135*		*02/03/2019 18:46*	WG1231668
(S) Tetrachloro-m-xylene	*56.3*		*10.0-139*		*02/03/2019 18:46*	WG1231668

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.1		1	02/01/2019 14:45	WG1230974

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0259	1	02/03/2019 18:58	WG1231668
(S) Decachlorobiphenyl	*65.1*		*10.0-135*		*02/03/2019 18:58*	WG1231668
(S) Tetrachloro-m-xylene	*71.4*		*10.0-139*		*02/03/2019 18:58*	WG1231668

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.9		1	02/01/2019 14:45	WG1230974

Pesticides (GC) by Method 8081B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Dieldrin	ND		0.0260	1	02/03/2019 19:10	WG1231668
(S) Decachlorobiphenyl	*88.3*		*10.0-135*		*02/03/2019 19:10*	WG1231668
(S) Tetrachloro-m-xylene	*77.5*		*10.0-139*		*02/03/2019 19:10*	WG1231668

Method Blank (MB)

(MB) R3380708-1 02/01/19 10:30

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

L1065475-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1065475-04 02/01/19 10:30 • (DUP) R3380708-3 02/01/19 10:30

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	78.2	77.8	1	0.601		10

Laboratory Control Sample (LCS)

(LCS) R3380708-2 02/01/19 10:30

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380706-1 02/01/19 10:26

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1065475-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1065475-14 02/01/19 10:26 • (DUP) R3380706-3 02/01/19 10:26

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	77.1	77.4	1	0.481		10

Laboratory Control Sample (LCS)

(LCS) R3380706-2 02/01/19 10:26

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380947-1 02/01/19 13:54

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1065475-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1065475-26 02/01/19 13:54 • (DUP) R3380947-3 02/01/19 13:54

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	73.7	74.1	1	0.469		10

Laboratory Control Sample (LCS)

(LCS) R3380947-2 02/01/19 13:54

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380944-1 02/01/19 13:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1065475-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1065475-31 02/01/19 13:40 • (DUP) R3380944-3 02/01/19 13:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.8	76.2	1	0.799		10

Laboratory Control Sample (LCS)

(LCS) R3380944-2 02/01/19 13:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380943-1 02/01/19 13:12

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1065475-42 Original Sample (OS) • Duplicate (DUP)

(OS) L1065475-42 02/01/19 13:12 • (DUP) R3380943-3 02/01/19 13:12

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	75.9	75.5	1	0.510		10

Laboratory Control Sample (LCS)

(LCS) R3380943-2 02/01/19 13:12

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380921-1 02/01/19 14:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1065522-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1065522-01 02/01/19 14:45 • (DUP) R3380921-3 02/01/19 14:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.4	86.0	1	0.724		10

Laboratory Control Sample (LCS)

(LCS) R3380921-2 02/01/19 14:45

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3380757-1 02/02/19 09:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*109*			*10.0-135*
(S) Tetrachloro-m-xylene	*100*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3380757-2 02/02/19 09:26 • (LCSD) R3380757-3 02/02/19 09:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0525	0.0522	78.8	78.4	35.0-137			0.573	37
(S) Decachlorobiphenyl				*88.4*	*89.5*	*10.0-135*				
(S) Tetrachloro-m-xylene				*82.1*	*82.7*	*10.0-139*				

L1065257-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1065257-17 02/02/19 13:36 • (MS) R3380757-4 02/02/19 13:48 • (MSD) R3380757-5 02/02/19 14:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	U	0.0653	0.0517	98.0	77.6	1	17.0-145			23.2	37
(S) Decachlorobiphenyl					*108*	*80.0*		*10.0-135*				
(S) Tetrachloro-m-xylene					*98.0*	*85.0*		*10.0-139*				

Method Blank (MB)

(MB) R3380844-1 02/02/19 15:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*100*			*10.0-135*
(S) Tetrachloro-m-xylene	*87.8*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3380844-2 02/02/19 15:22 • (LCSD) R3380844-3 02/02/19 15:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0604	0.0487	90.7	73.1	35.0-137			21.4	37
(S) Decachlorobiphenyl				*85.7*	*55.4*	*10.0-135*				
(S) Tetrachloro-m-xylene				*77.9*	*57.2*	*10.0-139*				

L1065475-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1065475-15 02/02/19 17:01 • (MS) R3380844-4 02/02/19 17:14 • (MSD) R3380844-5 02/02/19 17:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0849	ND	0.118	0.131	120	136	1	17.0-145			10.7	37
(S) Decachlorobiphenyl					*82.7*	*89.3*		*10.0-135*				
(S) Tetrachloro-m-xylene					*89.5*	*94.0*		*10.0-139*				

Method Blank (MB)

(MB) R3380911-3 02/03/19 16:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*86.8*			*10.0-135*
(S) Tetrachloro-m-xylene	*72.8*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3380911-1 02/03/19 16:17 • (LCSD) R3380911-2 02/03/19 16:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0515	0.0436	77.3	65.5	35.0-137			16.6	37
(S) Decachlorobiphenyl				*77.5*	*78.8*	*10.0-135*				
(S) Tetrachloro-m-xylene				*70.7*	*65.8*	*10.0-139*				

L1066173-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1066173-01 02/03/19 20:25 • (MS) R3380911-4 02/03/19 20:37 • (MSD) R3380911-5 02/03/19 20:50

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	ND	0.0589	0.0628	88.4	94.3	1	17.0-145			6.41	37
(S) Decachlorobiphenyl					*90.8*	*101*		*10.0-135*				
(S) Tetrachloro-m-xylene					*82.6*	*83.6*		*10.0-139*				

Method Blank (MB)

(MB) R3381686-3 02/06/19 10:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*110*			*10.0-135*
(S) Tetrachloro-m-xylene	*88.7*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3381686-1 02/06/19 10:27 • (LCSD) R3381686-2 02/06/19 10:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0661	0.0786	99.2	118	35.0-137			17.3	37
(S) Decachlorobiphenyl				*99.7*	*124*	*10.0-135*				
(S) Tetrachloro-m-xylene				*89.6*	*99.7*	*10.0-139*				

L1065475-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1065475-05 02/06/19 11:04 • (MS) R3381686-4 02/06/19 11:17 • (MSD) R3381686-5 02/06/19 11:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0881	0.0415	0.0955	0.0627	61.3	24.0	1	17.0-145		J3	41.5	37
(S) Decachlorobiphenyl					*54.4*	*41.3*		*10.0-135*				
(S) Tetrachloro-m-xylene					*52.7*	*39.2*		*10.0-139*				

Method Blank (MB)

(MB) R3381732-2 02/06/19 14:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dieldrin	U		0.00152	0.0200
(S) Decachlorobiphenyl	*132*			*10.0-135*
(S) Tetrachloro-m-xylene	*110*			*10.0-139*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3381732-3 02/06/19 14:57 • (LCSD) R3381732-1 02/06/19 14:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0666	0.0826	0.0896	124	135	35.0-137			8.13	37
(S) Decachlorobiphenyl				*117*	*118*	*10.0-135*				
(S) Tetrachloro-m-xylene				*97.7*	*109*	*10.0-139*				

L1065475-47 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1065475-47 02/06/19 18:58 • (MS) R3381732-4 02/06/19 19:13 • (MSD) R3381732-5 02/06/19 19:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dieldrin	0.0853	ND	0.0476	0.0479	42.2	42.5	1	17.0-145			0.536	37
(S) Decachlorobiphenyl					*25.1*	*27.5*		*10.0-135*				
(S) Tetrachloro-m-xylene					*38.3*	*36.2*		*10.0-139*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
P	RPD between the primary and confirmatory analysis exceeded 40%.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

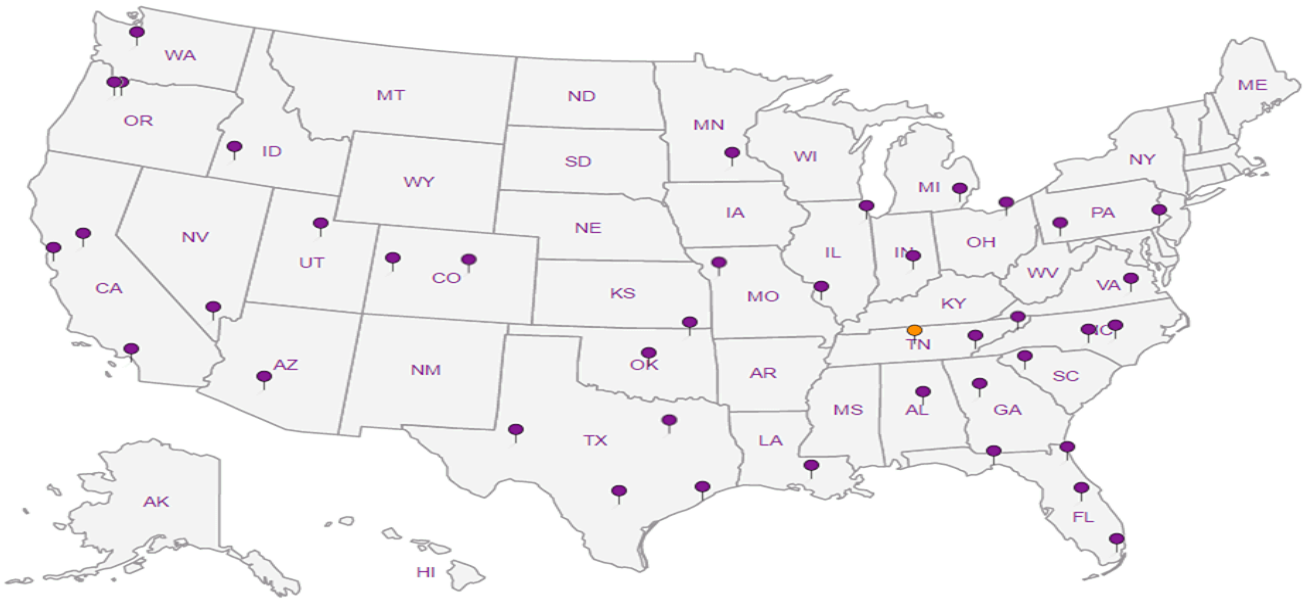
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Chain of Custody Page 1 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1065475

H196

Acctnum: PBSENGPOR

Template:

Prelogin:

TSR: 110 - Brian Ford

PB:

Shipped Via:

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: Bret.Waldron@PBSUSA.com

Project Description: La Center MS

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project #

Collected by (print): Matt Randall

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin, EPA Method 8081A	Extract and hold for Dieldrin, 8081A	Remarks	Sample # (lab only)
SB-1-0.5	Grab	SS	0.5	1/28/19	1037	1	X			-01
SB-1-1			1		1040		X			02
SB-10-0.5			0.5		1323		X			03
SB-10-1			1		1325		X			04
SB-19-0.5			0.5		1045			X		05
SB-19-1			1		1048			X		06
SB-19-1.5			1.5		1052			X		07
SB-20-0.5			0.5		1059		X			08
SB-20-1			1		1103		X			09
SB-20-1.5			1.5		1106		X			10

2

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Please provide EIM EDD

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking # 4686 6470 1607

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

	Date:	Time:	
Relinquished by: (Signature)	1/29/19	1045	Received by: (Signature)
Relinquished by: (Signature)	1/29/18	1400	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.4 °F °C 1.0 IO

Bottles Received: 52

If preservation required by Login: Date/Time

Date: 1/30/19 Time: 0845

Hold:

Condition: NCF / OK

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1065475

Table #

Acctnum: PBSENGPOR

Template:

Prelogin:

TSR: 110 - Brian Ford

PB:

Shipped Via:

PBS Engineering & Env.- POR

4412 SW Corbett Ave
Portland, OR 97239

Billing Information:

Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: Bret.Waldron@PBSUSA.com

Project Description: La Center MS

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project #

Collected by (print): Matt Randall

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Dieldrin, EPA 8081A

Extract and hold for Dieldrin, EPA 8081A

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time				
SB-21-0.5	Grab	SS	0.5	1/28/19	1111	1		X	11
SB-21-1			1		1115			X	12
SB-21-1.5			1.5		1117			X	13
SB-22-0.5			0.5		1123		X		14
SB-22-1			1		1127		X		15
SB-22-1.5			1.5		1131		X		16
SB-23-0.5			0.5		1139			X	17
SB-23-1			1		1143			X	18
SB-23-1.5			1.5		1147			X	19
SB-24-0.5	↓	↓	0.5	↓	1153	↓	X		20

3

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Please provide EIM EDD

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

	Date:	Time:		
Relinquished by : (Signature)	1/29/19	1045	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Relinquished by : (Signature)	1/29/19	1400	Received by: (Signature)	Temp: 4.4 °C 1.0±0 Bottles Received: 52
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/30/19 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 3 of 6

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Billing Information:
Accounts Payable
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Portland, OR 97239

Pace Analytical®
National Center for Testing & Innovation

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Report to: Bret Waldron
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Project Description: La Center MS
City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000
Lab Project #

Collected by (print): Matt Randall
Site/Facility ID #
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #
Date Results Needed

L# 1065475
Table #
Acctnum: PBSENGPOR
Template:
Prelogin:
TSR: 110 - Brian Ford
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin, EPA 8081A	Extract+Hold for Dieldrin, EPA 8081A	Remarks	Sample # (lab only)
SB-24-1	Grab	SS	1	1/28/19	1157	1	X			21
SB-24-1.5			1.5		1200	1	X			22
SB-25-0.5			0.5		1208	1		X		23
SB-25-1			1		1211	1		X		24
SB-25-1.5			1.5		1216	1		X		25
SB-26-0.5			0.5		1228	1	X			26
SB-26-1			1		1234	1	X			27
SB-26-1.5			1.5		1238	1	X			28
SB-27-0.5			0.5		1331	1		X		29
SB-27-1			1		1336	1		X		30

4

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Please Provide EIM EDD

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

	Date:	Time:	
Relinquished by: (Signature)	1/29/19	1045	Received by: (Signature)
Relinquished by: (Signature)	1/29/19	1400	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.4 °C Bottles Received: 52
1.010

Date: 1/30/19 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 4 of 6

PBS Engineering & Env.- POR

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Portland, OR 97239

Billing Information:
Accounts Payable
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Portland, OR 97239

Pres Chk

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National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Bret Waldron

Email To: Bret.Waldron@PBSUSA.com

Project Description:

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project #

L# 1065475

Table #

Collected by (print): Matt Randall

Site/Facility ID #

P.O. #

Acctnum: PBSENGPOR

Template:

Prelogin:

TSR: 110 - Brian Ford

PB:

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Shipped Via:

Analysis / Container / Preservative

Dieldrin, EPA 8081A

Extract+hold for Dieldrin, EPA 8081A

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin, EPA 8081A	Extract+hold for Dieldrin, EPA 8081A	Remarks	Sample # (lab only)
SB-27-1.5	Grab	SS	1.5	1/28/19	1343	1		X		31
SB-28-0.5			0.5		1349	1	X			32
SB-28-1			1		1356	1	X			33
SB-28-1.5			1.5		1401	1	X			34
SB-29-0.5			0.5		1408	1		X		35
SB-29-1			1		1412	1		X		36
SB-29-1.5			1.5		1415	1		X		37
SB-30-0.5			0.5		1419	1	X			38
SB-30-1			1		1422	1	X			39
SB-30-1.5			1.5		1425	1	X			40

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Please Provide EIM EDD

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Relinquished by: (Signature) — Date: 1/29/19 Time: 1045
Received by: (Signature)

Relinquished by: (Signature) Exxon — Date: 1/29/19 Time: 1400
Received by: (Signature)

Relinquished by: (Signature) — Date: Time:
Received for lab by: (Signature) — Date: 1/30/19 Time: 0845

Temp: 4.4 °C 1.0 I0 Bottles Received: 52

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Chain of Custody

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Billing Information:
Accounts Payable
4412 SW Corbett Ave
Portland, OR 97239

Pres Chk

Report to: Bret Waldron

Email To: Bret.Waldron@PBSUSA.com

Project Description: La Center MS

City/State Collected: La Center, WA

Phone: 503-248-1939
Fax: 503-248-0223

Client Project # 22929.000

Lab Project #

Collected by (print): Matt Randall

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Dieldrin, EPA 8081A	Extract held for Dieldrin, EPA 8081A	Remarks	Sample # (lab only)
SB-31-0.5	Grab	SS	0.5	1/28/19	1430	1		X		41
SB-31-1			1		1433	1		X		42
SB-31-1.5			1.5		1436	1		X		43
SB-32-0.5			0.5		1440	1	X			44
SB-32-1			1		1443	1	X			45
SB-32-1.5			1.5		1448	1	X			46
SB-33-0.5			0.5		1454	1		X		47
SB-33-1			1		1457	1		X		48
SB-33-1.5			1.5		1502	1		X		49
SB-34-0.5	↓	↓	0.5	↓	1509	↓	X			50

L# 1065475

Table #

Acctnum: PBSENGPOR

Template:

Prelogin:

TSR: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: Please provide EIM EDD

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

	Date:	Time:		
Relinquished by : (Signature)	1/29/19	1045	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	1/29/19	1400	Received by: (Signature)	Temp: 4.4 °C Bottles Received: 52
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/30/19 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 6 of 6

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Phone: 503-248-1939
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Client Project # 22929.000

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P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Diesel/Oil, EPA 8081A	Extract held for Diesel/Oil, EPA 8081A	Remarks	Sample # (lab only)
SB-34-1	Grab	SS	1	1/28/19	1512	1	X			51
SB-34-1.5	↓	↓	1.5	↓	1520	↓	X			52

L# 1065475

Table #

Acctnum: PBSENGPOR

Template:

Prelogin:

TSR: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Please provide EIMEDD

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: 4.4 BF°C 1.0 ±0 Bottles Received: 52

If preservation required by Login: Date/Time

Hold:

Condition NCF / OK

	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	1/29/19	1045	
Relinquished by: (Signature)	1/29/19	1400	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Date: 1/30/19 Time: 0845

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PBS Environmental & Engineering
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Report Number: P190948
Report Date: June 21, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: A-S-C-0.5
Matrix: soil

PAL Sample ID: P190948-07
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/19/19	Dieldrin	0.14 mg/kg	0.0067 mg/kg	

Surrogate Recovery: 98 %
Surrogate Recovery Range: 26-130
(TPP-d15 used as Surrogate)

Client Sample ID: A-S-C-1
Matrix: soil

PAL Sample ID: P190948-08
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/19/19	Dieldrin	0.20 mg/kg	0.0067 mg/kg	

Surrogate Recovery: 104 %
Surrogate Recovery Range: 26-130
(TPP-d15 used as Surrogate)

Client Sample ID: A-S-B-1
Matrix: soil

PAL Sample ID: P190948-10
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/19/19	Dieldrin	0.13 mg/kg	0.0067 mg/kg	

Surrogate Recovery: 123 %
Surrogate Recovery Range: 26-130
(TPP-d15 used as Surrogate)

Rick Jordan, Laboratory Manager

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

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Report Number: P190948
Report Date: June 21, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: A-S-A-0.5
Matrix: soil

PAL Sample ID: P190948-11
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/19/19	Dieldrin	0.12 mg/kg	0.0067 mg/kg	

Surrogate Recovery: 123 %
Surrogate Recovery Range: 26-130
(TPP-d15 used as Surrogate)

Client Sample ID: A-S-A-1
Matrix: soil

PAL Sample ID: P190948-12
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/19/19	Dieldrin	0.12 mg/kg	0.0067 mg/kg	

Surrogate Recovery: 126 %
Surrogate Recovery Range: 26-130
(TPP-d15 used as Surrogate)

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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Report Number: P190948
Report Date: June 21, 2019
Client Project ID: 22929.000

Quality Assurance

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9061010-BLK1	Dieldrin	Not Detected	< 0.0067 mg/kg	

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9061010-MS1	Dieldrin	86	30-145	
6/10/19	6/12/19	9061010-MSD1	Dieldrin	95	30-145	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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Report Number: P190948
Report Date: July 03, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: PZ-1-GW
Matrix: water

PAL Sample ID: P190948-25
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/04/19	7/2/19	Dieldrin	ND	0.0060 ug/L	

Surrogate Recovery: 105 %
Surrogate Recovery Range: 60-140
(TPP-d15 used as Surrogate)

Client Sample ID: PZ-2-GW
Matrix: water

PAL Sample ID: P190948-26
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: Modified EPA 8270D (GC-MS/MS)					
6/04/19	7/2/19	Dieldrin	ND	0.0060 ug/L	

Surrogate Recovery: 102 %
Surrogate Recovery Range: 60-140
(TPP-d15 used as Surrogate)

Rick Jordan, Laboratory Manager

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

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Report Number: P190948
Report Date: July 03, 2019
Client Project ID: 22929.000

Quality Assurance

Method Blank Data **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/4/19	7/2/19	9060405-BLK1	Dieldrin	Not Detected	< 0.0060 ug/L	

Blank Spike Data **Matrix:** water

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/4/19	7/2/19	9060405-BS1	Dieldrin	97	60-140	
6/4/19	7/2/19	9060405-BSD1	Dieldrin	99	60-140	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: SB1-0.5
Matrix: soil

PAL Sample ID: P190948-01
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: EPA 8151A (GC-MS/MS)					
6/11/19	6/14/19	2,4,5-T	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4,5-TP	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-D	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-DB	ND	0.0067 mg/kg	
6/11/19	6/14/19	Acifluorfen	ND	0.0067 mg/kg	
6/11/19	6/14/19	Bentazon	ND	0.0067 mg/kg	
6/11/19	6/14/19	Clopyralid	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dicamba	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dichlorprop	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dinoseb	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPA	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPP	ND	0.0067 mg/kg	
6/11/19	6/14/19	Picloram	ND	0.0067 mg/kg	
6/11/19	6/14/19	Quinclorac	ND	0.0067 mg/kg	
6/11/19	6/14/19	Triclopyr	ND	0.0067 mg/kg	
Surrogate Recovery: 91 %					
Surrogate Recovery Range: 30-139					
(DCPAA used as Surrogate)					
Method: Monsanto Method (LC-FLD)					
6/06/19	6/11/19	AMPA	0.031 mg/kg	0.017 mg/kg	
6/06/19	6/11/19	Glyphosate	ND	0.017 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: SB10-0.5
Matrix: soil

PAL Sample ID: P190948-04
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: EPA 8151A (GC-MS/MS)					
6/11/19	6/14/19	2,4,5-T	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4,5-TP	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-D	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-DB	ND	0.0067 mg/kg	
6/11/19	6/14/19	Acifluorfen	ND	0.0067 mg/kg	
6/11/19	6/14/19	Bentazon	ND	0.0067 mg/kg	
6/11/19	6/14/19	Clopyralid	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dicamba	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dichlorprop	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dinoseb	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPA	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPP	ND	0.0067 mg/kg	
6/11/19	6/14/19	Picloram	ND	0.0067 mg/kg	
6/11/19	6/14/19	Quinclorac	ND	0.0067 mg/kg	
6/11/19	6/14/19	Triclopyr	ND	0.0067 mg/kg	
Surrogate Recovery: 83 %					
Surrogate Recovery Range: 30-139					
(DCPAA used as Surrogate)					
Method: Monsanto Method (LC-FLD)					
6/06/19	6/11/19	AMPA	0.042 mg/kg	0.017 mg/kg	
6/06/19	6/11/19	Glyphosate	ND	0.017 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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PBS Environmental & Engineering
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: A-S-B-0.5
Matrix: soil

PAL Sample ID: P190948-09
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: EPA 8151A (GC-MS/MS)					
6/11/19	6/14/19	2,4,5-T	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4,5-TP	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-D	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-DB	ND	0.0067 mg/kg	
6/11/19	6/14/19	Acifluorfen	ND	0.0067 mg/kg	
6/11/19	6/14/19	Bentazon	ND	0.0067 mg/kg	
6/11/19	6/14/19	Clopyralid	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dicamba	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dichlorprop	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dinoseb	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPA	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPP	ND	0.0067 mg/kg	
6/11/19	6/14/19	Picloram	ND	0.0067 mg/kg	
6/11/19	6/14/19	Quinclorac	ND	0.0067 mg/kg	
6/11/19	6/14/19	Triclopyr	ND	0.0067 mg/kg	
Surrogate Recovery: 68 %					
Surrogate Recovery Range: 30-139					
(DCPAA used as Surrogate)					
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/12/19	Dieldrin	0.11 mg/kg	0.0067 mg/kg	
Surrogate Recovery: 104 %					
Surrogate Recovery Range: 26-130					
(TPP-d15 used as Surrogate)					
Method: Monsanto Method (LC-FLD)					
6/06/19	6/11/19	AMPA	ND	0.017 mg/kg	
6/06/19	6/11/19	Glyphosate	ND	0.017 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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PBS Environmental & Engineering
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: B-S-B-0.5
Matrix: soil

PAL Sample ID: P190948-17
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: EPA 8151A (GC-MS/MS)					
6/11/19	6/14/19	2,4,5-T	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4,5-TP	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-D	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-DB	ND	0.0067 mg/kg	
6/11/19	6/14/19	Acifluorfen	ND	0.0067 mg/kg	
6/11/19	6/14/19	Bentazon	ND	0.0067 mg/kg	
6/11/19	6/14/19	Clopyralid	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dicamba	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dichlorprop	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dinoseb	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPA	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPP	ND	0.0067 mg/kg	
6/11/19	6/14/19	Picloram	ND	0.0067 mg/kg	
6/11/19	6/14/19	Quinclorac	ND	0.0067 mg/kg	
6/11/19	6/14/19	Triclopyr	ND	0.0067 mg/kg	
Surrogate Recovery: 74 %					
Surrogate Recovery Range: 30-139					
(DCPAA used as Surrogate)					
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/12/19	Dieldrin	ND	0.0067 mg/kg	
Surrogate Recovery: 116 %					
Surrogate Recovery Range: 26-130					
(TPP-d15 used as Surrogate)					
Method: Monsanto Method (LC-FLD)					
6/10/19	6/12/19	AMPA	0.066 mg/kg	0.017 mg/kg	
6/10/19	6/12/19	Glyphosate	ND	0.017 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

PACIFIC AGRICULTURAL LABORATORY
A MATRIX SCIENCES COMPANY
21830 S.W. Alexander Ln. • Sherwood, OR 97140 • Ph 503.626.7943 • pacaglab.com

PBS Environmental & Engineering
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Analytical Report

Client Sample ID: D-N-B-0.5
Matrix: soil

PAL Sample ID: P190948-21
Sample Date: 5/31/19
Received Date: 5/31/19

Extraction Date	Analysis Date	Analyte	Amount Detected	Limit of Quantitation	Notes
Method: EPA 8151A (GC-MS/MS)					
6/11/19	6/14/19	2,4,5-T	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4,5-TP	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-D	ND	0.0067 mg/kg	
6/11/19	6/14/19	2,4-DB	ND	0.0067 mg/kg	
6/11/19	6/14/19	Acifluorfen	ND	0.0067 mg/kg	
6/11/19	6/14/19	Bentazon	ND	0.0067 mg/kg	
6/11/19	6/14/19	Clopyralid	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dicamba	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dichlorprop	ND	0.0067 mg/kg	
6/11/19	6/14/19	Dinoseb	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPA	ND	0.0067 mg/kg	
6/11/19	6/14/19	MCPP	ND	0.0067 mg/kg	
6/11/19	6/14/19	Picloram	ND	0.0067 mg/kg	
6/11/19	6/14/19	Quinclorac	ND	0.0067 mg/kg	
6/11/19	6/14/19	Triclopyr	ND	0.0067 mg/kg	
Surrogate Recovery: 93 %					
Surrogate Recovery Range: 30-139					
(DCPAA used as Surrogate)					
Method: Modified EPA 8270D (GC-MS/MS)					
6/10/19	6/12/19	Dieldrin	ND	0.0067 mg/kg	
Surrogate Recovery: 102 %					
Surrogate Recovery Range: 26-130					
(TPP-d15 used as Surrogate)					
Method: Monsanto Method (LC-FLD)					
6/10/19	6/12/19	AMPA	0.078 mg/kg	0.017 mg/kg	
6/10/19	6/12/19	Glyphosate	ND	0.017 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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PBS Environmental & Engineering
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Quality Assurance

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
5/28/19	6/5/19	9052808-BLK1	AMPA	Not Detected	< 0.050 mg/kg	
5/28/19	6/5/19	9052808-BLK1	Glyphosate	Not Detected	< 0.017 mg/kg	

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9060607-BLK1	AMPA	Not Detected	< 0.017 mg/kg	
6/10/19	6/12/19	9060607-BLK1	Glyphosate	Not Detected	< 0.017 mg/kg	

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9061010-BLK1	Dieldrin	Not Detected	< 0.0067 mg/kg	

Method Blank Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/11/19	6/14/19	9061103-BLK1	2,4,5-T	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	2,4,5-TP	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	2,4-D	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	2,4-DB	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Acifluorfen	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Bentazon	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Clopyralid	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Dicamba	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Dichlorprop	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Dinoseb	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	MCPA	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	MCPP	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Picloram	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Quinclorac	Not Detected	< 0.0067 mg/kg	
6/11/19	6/14/19	9061103-BLK1	Triclopyr	Not Detected	< 0.0067 mg/kg	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

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PBS Environmental & Engineering
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: P190948
Report Date: June 17, 2019
Client Project ID: 22929.000

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/6/19	6/11/19	9052808-MS2	AMPA	71	12-167	
6/6/19	6/11/19	9052808-MS2	Glyphosate	55	26-141	

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9060607-MS1	AMPA	56	12-167	
6/10/19	6/12/19	9060607-MS1	Glyphosate	55	26-141	

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/10/19	6/12/19	9061010-MS1	Dieldrin	86	30-145	
6/10/19	6/12/19	9061010-MSD1	Dieldrin	95	30-145	

Matrix Spike Data **Matrix:** soil

Extraction Date	Analysis Date	Batch QC Sample #	Analyte	% Recovery	Expected % Recovery	Notes
6/11/19	6/14/19	9061103-MS1	2,4-D	78	37-141	
6/11/19	6/14/19	9061103-MSD1	2,4-D	82	37-141	
6/11/19	6/14/19	9061103-MS1	Dicamba	73	47-142	
6/11/19	6/14/19	9061103-MSD1	Dicamba	79	47-142	
6/11/19	6/14/19	9061103-MS1	Triclopyr	69	42-135	
6/11/19	6/14/19	9061103-MSD1	Triclopyr	73	42-135	

This analytical report complies with the ISO/IEC 17025:2017 Quality Standard.

Rick Jordan, Laboratory Manager

BSK Associates Vancouver
2517 E. Evergreen Blvd.
Vancouver, WA 98661
360-750-0055 (Main)
360-750-0057 (FAX)

V8H0281
8/29/2018
Invoice: V803049

Kevin Grosz
Olson Environmental LLC
2226 Evergreen Blvd.
Vancouver, WA 98660

RE: Report for V8H0281 La Center Middle School Soil

Dear Kevin Grosz,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 8/14/2018. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, Debra Karlsson , at (360) 750-0055.

Thank you again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Debra Karlsson, Project Manager

Accredited in Accordance with NELAP
ORELAP #WA100008-010

Case Narrative

Project and Report Details		Invoice Details	
Client:	Olson Environmental LLC	**Invoice To:**	Olson Environmental LLC
Report To:	Kevin Grosz	**Invoice Attn:**	Lacey Arnold
Project #:	La Center Middle School Soil	**Project PO#:**	E20069.02
Received:	8/14/2018 - 15:25		
Report Due:	8/28/2018		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 28.2

Containers Intact
COC/Labels Agree
Received with no thermal preservation.
Sample(s) arrived at lab on same day sampled.
Packing Material - Other
Initial receipt at BSK-VAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.

Report Distribution

Recipient(s)	Report Format	CC:
Kevin Grosz	FINAL.RPT	

Certificate of Analysis

Sample ID: V8H0281-01
Sampled By: Ryan Thiele
Sample Description: TP #1 - 6-12" Depth // Olson Environmental

Sample Date - Time: 08/14/18 - 09:50
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**90**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**7.8**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**190**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**23**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	**31**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**9.9**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**11**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**100**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**17**	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-01
Sampled By: Ryan Thiele
Sample Description: TP #1 - 6-12" Depth // Olson Environmental

Sample Date - Time: 08/14/18 - 09:50
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	97 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-02
Sampled By: Ryan Thiele
Sample Description: TP #2 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:22
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**89**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**6.2**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**150**	7.1	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**44**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**9.2**	5.6	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**12**	7.1	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**110**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	71	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDE	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDT	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Aldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
alpha-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
beta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Chlordane	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/23/18	
delta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Dieldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan I	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan II	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan Sulfate	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Heptachlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	

Certificate of Analysis

Sample ID: V8H0281-02
Sampled By: Ryan Thiele
Sample Description: TP #2 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:22
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Lindane	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Methoxychlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/23/18	
Toxaphene	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/23/18	
Surrogate: TCMX	EPA 8081A	94 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-03
Sampled By: Ryan Thiele
Sample Description: TP #2 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:25
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**91**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**8.6**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**190**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**32**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	**21**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**12**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**130**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/23/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Dieldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	

Certificate of Analysis

Sample ID: V8H0281-03
Sampled By: Ryan Thiele
Sample Description: TP #2 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:25
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/23/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/23/18	
Surrogate: TCMX	EPA 8081A	88 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-04
Sampled By: Ryan Thiele
Sample Description: TP #2 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 10:30
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**92**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**5.6**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**150**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**31**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**12**	5.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**98**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	68	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDE	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
4,4'-DDT	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Aldrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
alpha-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
beta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Chlordane	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/23/18	
delta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Dieldrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan I	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan II	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endosulfan Sulfate	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Endrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Heptachlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	

Certificate of Analysis

Sample ID: V8H0281-04
Sampled By: Ryan Thiele
Sample Description: TP #2 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 10:30
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Lindane	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Methoxychlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/23/18	
Toxaphene	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/23/18	
Surrogate: TCMX	EPA 8081A	91 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-05
Sampled By: Ryan Thiele
Sample Description: TP #3 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:54
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**90**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.0**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**130**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**16**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**6.0**	5.6	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**16**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**58**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**82**	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-05
Sampled By: Ryan Thiele
Sample Description: TP #3 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 10:54
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	93 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-06
Sampled By: Ryan Thiele
Sample Description: TP #4 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:11
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**89**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**5.8**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**180**	7.0	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**21**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	**14**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**13**	5.6	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	7.0	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**120**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	**72**	70	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-06
Sampled By: Ryan Thiele
Sample Description: TP #4 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:11
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	89 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-07
Sampled By: Ryan Thiele
Sample Description: TP #4 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:20
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**91**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.7**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**150**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**14**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**11**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**83**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**44**	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-07
Sampled By: Ryan Thiele
Sample Description: TP #4 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:20
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	90 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-08
Sampled By: Ryan Thiele
Sample Description: TP #4 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 11:23
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**92**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.0**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**140**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**14**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**11**	5.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**66**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	68	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**51**	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-08
Sampled By: Ryan Thiele
Sample Description: TP #4 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 11:23
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	90 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-09
Sampled By: Ryan Thiele
Sample Description: TP #7 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:40
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**93**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.4**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**120**	6.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**15**	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**12**	5.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**12**	6.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**81**	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	67	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**70**	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-09
Sampled By: Ryan Thiele
Sample Description: TP #7 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 11:40
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.4	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	54	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	94 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-10
Sampled By: Ryan Thiele
Sample Description: TP #5 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 12:42
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**91**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**4.4**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**120**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**14**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**8.4**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**12**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**84**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	68	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-10
Sampled By: Ryan Thiele
Sample Description: TP #5 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 12:42
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	87 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-11
Sampled By: Ryan Thiele
Sample Description: TP #6 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:05
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**91**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.7**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**140**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**15**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**8.9**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**67**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	68	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-11
Sampled By: Ryan Thiele
Sample Description: TP #6 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:05
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	89 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-12
Sampled By: Ryan Thiele
Sample Description: TP #8 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:20
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**89**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**5.3**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**160**	7.0	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**18**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	**17**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**12**	5.6	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	7.0	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**98**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	70	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-12
Sampled By: Ryan Thiele
Sample Description: TP #8 - 18" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:20
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.6	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	56	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	91 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-13
Sampled By: Ryan Thiele
Sample Description: TP #8 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:28
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**90**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.8**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**140**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**14**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**11**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**80**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-13
Sampled By: Ryan Thiele
Sample Description: TP #8 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 13:28
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	91 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-14
Sampled By: Ryan Thiele
Sample Description: TP #8 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 13:33
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**94**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.0**	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**130**	6.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**14**	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**12**	5.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**14**	6.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.1	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**70**	13	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	67	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	53	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-14
Sampled By: Ryan Thiele
Sample Description: TP #8 - Surface // Olson Environmental

Sample Date - Time: 08/14/18 - 13:33
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.3	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	53	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	90 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-15
Sampled By: Ryan Thiele
Sample Description: TP #9 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 14:02
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**91**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**7.8**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**140**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**18**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	**19**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**16**	5.5	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**11**	6.9	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.2	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**140**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	ND	69	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-15
Sampled By: Ryan Thiele
Sample Description: TP #9 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 14:02
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.5	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	55	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	93 %	*Acceptable range: 10-138 %*						

Certificate of Analysis

Sample ID: V8H0281-16
Sampled By: Ryan Thiele
Sample Description: TP #10 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 14:35
Matrix: Soil
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Percent Solids	SM 2540B	**88**	0.10	% by Weight	1	A812112	08/20/18	08/21/18	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Antimony	EPA 6020	ND	11	mg/kg dry	1	A812278	08/22/18	08/23/18	
Arsenic	EPA 6020	**3.2**	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Barium	EPA 6020	**130**	7.1	mg/kg dry	1	A812278	08/22/18	08/23/18	
Beryllium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cadmium	EPA 6020	ND	1.4	mg/kg dry	1	A812278	08/22/18	08/23/18	
Chromium	EPA 6020	**19**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Cobalt	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Copper	EPA 6020	**15**	5.7	mg/kg dry	1	A812278	08/22/18	08/23/18	
Lead	EPA 6020	**13**	7.1	mg/kg dry	1	A812278	08/22/18	08/23/18	
Mercury	EPA 6020A	ND	0.50	mg/kg dry	1	A812278	08/22/18	08/23/18	
Molybdenum	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Nickel	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Selenium	EPA 6020	ND	2.8	mg/kg dry	1	A812278	08/22/18	08/23/18	
Silver	EPA 6020	ND	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Thallium	EPA 6020	ND	2.3	mg/kg dry	1	A812278	08/22/18	08/23/18	
Vanadium	EPA 6020	**87**	14	mg/kg dry	1	A812278	08/22/18	08/23/18	
Zinc	EPA 6020	**100**	71	mg/kg dry	1	A812278	08/22/18	08/23/18	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
4,4'-DDD	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDE	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
4,4'-DDT	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Aldrin	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
alpha-BHC	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
beta-BHC	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Chlordane	EPA 8081A	ND	57	ug/kg dry	50	A812197	08/21/18	08/24/18	
delta-BHC	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Dieldrin	EPA 8081A	**11**	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan I	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan II	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endosulfan Sulfate	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Endrin	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	CV0.0
Endrin Aldehyde	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Heptachlor	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	

Certificate of Analysis

Sample ID: V8H0281-16
Sampled By: Ryan Thiele
Sample Description: TP #10 - 6-12" // Olson Environmental

Sample Date - Time: 08/14/18 - 14:35
Matrix: Soil
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Organochlorine Pesticides by GC-ECD									
Heptachlor Epoxide	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Lindane	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Methoxychlor	EPA 8081A	ND	5.7	ug/kg dry	50	A812197	08/21/18	08/24/18	
Toxaphene	EPA 8081A	ND	57	ug/kg dry	50	A812197	08/21/18	08/24/18	
Surrogate: TCMX	EPA 8081A	90 %	*Acceptable range: 10-138 %*						

BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2540B - Quality Control											
Batch: A812112										Prepared: 8/20/2018	
Prep Method: Method Specific Preparation										Analyst: SNH	
Duplicate (A812112-DUP1), Source: A8H2334-01											
Percent Solids	68	0.10	% by Weight		67			2	20	08/21/18	
Duplicate (A812112-DUP2), Source: V8H0281-10											
Percent Solids	92	0.10	% by Weight		91			0	20	08/21/18	

BSK Associates Laboratory Fresno
Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A812278										Prepared: 8/22/2018	
Prep Method: EPA 3050B										Analyst: MAS	
Blank (A812278-BLK1)											
Antimony	ND	10	mg/kg wet							08/23/18	
Arsenic	ND	2.5	mg/kg wet							08/23/18	
Barium	ND	6.3	mg/kg wet							08/23/18	
Beryllium	ND	1.3	mg/kg wet							08/23/18	
Cadmium	ND	1.3	mg/kg wet							08/23/18	
Chromium	ND	13	mg/kg wet							08/23/18	
Cobalt	ND	13	mg/kg wet							08/23/18	
Copper	ND	5.0	mg/kg wet							08/23/18	
Lead	ND	6.3	mg/kg wet							08/23/18	
Molybdenum	ND	13	mg/kg wet							08/23/18	
Nickel	ND	13	mg/kg wet							08/23/18	
Selenium	ND	2.5	mg/kg wet							08/23/18	
Silver	ND	13	mg/kg wet							08/23/18	
Thallium	ND	2.0	mg/kg wet							08/23/18	
Vanadium	ND	13	mg/kg wet							08/23/18	
Zinc	ND	63	mg/kg wet							08/23/18	
Blank Spike (A812278-BS1)											
Antimony	100	10	mg/kg wet	98		104	75-125			08/23/18	
Arsenic	100	2.5	mg/kg wet	98		102	75-125			08/23/18	
Barium	98	6.3	mg/kg wet	98		100	75-125			08/23/18	
Beryllium	97	1.3	mg/kg wet	98		99	75-125			08/23/18	
Cadmium	96	1.3	mg/kg wet	98		98	75-125			08/23/18	
Chromium	100	13	mg/kg wet	98		103	75-125			08/23/18	
Cobalt	100	13	mg/kg wet	98		104	75-125			08/23/18	
Copper	96	5.0	mg/kg wet	98		98	75-125			08/23/18	

BSK Associates Laboratory Fresno
Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A812278										Prepared: 8/22/2018	
Prep Method: EPA 3050B										Analyst: MAS	
Blank Spike (A812278-BS1)											
Lead	100	6.3	mg/kg wet	98		104	75-125			08/23/18	
Molybdenum	110	13	mg/kg wet	98		110	75-125			08/23/18	
Nickel	100	13	mg/kg wet	98		103	75-125			08/23/18	
Selenium	100	2.5	mg/kg wet	98		102	75-125			08/23/18	
Silver	47	13	mg/kg wet	49		97	75-125			08/23/18	
Thallium	91	2.0	mg/kg wet	98		93	75-125			08/23/18	
Vanadium	100	13	mg/kg wet	98		105	75-125			08/23/18	
Zinc	95	63	mg/kg wet	98		97	75-125			08/23/18	
Blank Spike Dup (A812278-BSD1)											
Antimony	100	10	mg/kg wet	98		106	75-125	2	20	08/23/18	
Arsenic	100	2.5	mg/kg wet	98		104	75-125	2	20	08/23/18	
Barium	100	6.3	mg/kg wet	98		104	75-125	4	20	08/23/18	
Beryllium	96	1.3	mg/kg wet	98		98	75-125	1	20	08/23/18	
Cadmium	98	1.3	mg/kg wet	98		100	75-125	3	20	08/23/18	
Chromium	100	13	mg/kg wet	98		106	75-125	2	20	08/23/18	
Cobalt	100	13	mg/kg wet	98		106	75-125	1	20	08/23/18	
Copper	97	5.0	mg/kg wet	98		99	75-125	1	20	08/23/18	
Lead	100	6.3	mg/kg wet	98		105	75-125	1	20	08/23/18	
Molybdenum	110	13	mg/kg wet	98		111	75-125	1	20	08/23/18	
Nickel	100	13	mg/kg wet	98		104	75-125	1	20	08/23/18	
Selenium	100	2.5	mg/kg wet	98		103	75-125	1	20	08/23/18	
Silver	49	13	mg/kg wet	49		100	75-125	3	20	08/23/18	
Thallium	94	2.0	mg/kg wet	98		96	75-125	3	20	08/23/18	
Vanadium	110	13	mg/kg wet	98		108	75-125	2	20	08/23/18	
Zinc	96	63	mg/kg wet	98		98	75-125	1	20	08/23/18	

BSK Associates Laboratory Fresno

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A812278										Prepared: 8/22/2018	
Prep Method: EPA 3050B										Analyst: MAS	
Matrix Spike (A812278-MS1), Source: A8H2147-07											
Antimony	83	10	mg/kg wet	100	ND	82	75-125			08/23/18	
Arsenic	100	2.5	mg/kg wet	100	ND	103	75-125			08/23/18	
Barium	140	6.3	mg/kg wet	100	49	95	75-125			08/23/18	
Beryllium	98	1.3	mg/kg wet	100	ND	97	75-125			08/23/18	
Cadmium	98	1.3	mg/kg wet	100	ND	97	75-125			08/23/18	
Chromium	110	13	mg/kg wet	100	ND	108	75-125			08/23/18	
Cobalt	110	13	mg/kg wet	100	ND	105	75-125			08/23/18	
Copper	150	5.0	mg/kg wet	100	36	108	75-125			08/23/18	
Lead	110	6.3	mg/kg wet	100	ND	101	75-125			08/23/18	
Molybdenum	110	13	mg/kg wet	100	ND	109	75-125			08/23/18	
Nickel	110	13	mg/kg wet	100	ND	102	75-125			08/23/18	
Selenium	100	2.5	mg/kg wet	100	ND	99	75-125			08/23/18	
Silver	49	13	mg/kg wet	51	ND	97	75-125			08/23/18	
Thallium	94	2.0	mg/kg wet	100	ND	93	75-125			08/23/18	
Vanadium	120	13	mg/kg wet	100	19	103	75-125			08/23/18	
Zinc	160	63	mg/kg wet	100	ND	111	75-125			08/23/18	
Matrix Spike Dup (A812278-MSD1), Source: A8H2147-07											
Antimony	81	10	mg/kg wet	100	ND	81	75-125	3	20	08/23/18	
Arsenic	100	2.5	mg/kg wet	100	ND	101	75-125	3	20	08/23/18	
Barium	140	6.3	mg/kg wet	100	49	93	75-125	2	20	08/23/18	
Beryllium	95	1.3	mg/kg wet	100	ND	95	75-125	3	20	08/23/18	
Cadmium	96	1.3	mg/kg wet	100	ND	96	75-125	3	20	08/23/18	
Chromium	110	13	mg/kg wet	100	ND	106	75-125	4	20	08/23/18	
Cobalt	100	13	mg/kg wet	100	ND	104	75-125	2	20	08/23/18	
Copper	140	5.0	mg/kg wet	100	36	106	75-125	3	20	08/23/18	

BSK Associates Laboratory Fresno

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 6020 - Quality Control											
Batch: A812278										Prepared: 8/22/2018	
Prep Method: EPA 3050B										Analyst: MAS	
Matrix Spike Dup (A812278-MSD1), Source: A8H2147-07											
Lead	110	6.3	mg/kg wet	100	ND	99	75-125	3	20	08/23/18	
Molybdenum	110	13	mg/kg wet	100	ND	107	75-125	3	20	08/23/18	
Nickel	110	13	mg/kg wet	100	ND	101	75-125	2	20	08/23/18	
Selenium	97	2.5	mg/kg wet	100	ND	97	75-125	3	20	08/23/18	
Silver	47	13	mg/kg wet	50	ND	95	75-125	3	20	08/23/18	
Thallium	90	2.0	mg/kg wet	100	ND	90	75-125	4	20	08/23/18	
Vanadium	120	13	mg/kg wet	100	19	99	75-125	4	20	08/23/18	
Zinc	160	63	mg/kg wet	100	ND	107	75-125	3	20	08/23/18	
EPA 6020A - Quality Control											
Batch: A812278										Prepared: 8/22/2018	
Prep Method: EPA 3050B										Analyst: MAS	
Blank (A812278-BLK1)											
Mercury	ND	0.50	mg/kg wet							08/23/18	
Blank Spike (A812278-BS1)											
Mercury	2.4	0.50	mg/kg wet	2.5		97	75-125			08/23/18	
Blank Spike Dup (A812278-BSD1)											
Mercury	2.4	0.50	mg/kg wet	2.5		98	75-125	1	20	08/23/18	
Matrix Spike (A812278-MS1), Source: A8H2147-07											
Mercury	2.5	0.50	mg/kg wet	2.5	ND	97	75-125			08/23/18	
Matrix Spike Dup (A812278-MSD1), Source: A8H2147-07											
Mercury	2.4	0.50	mg/kg wet	2.5	ND	96	75-125	3	20	08/23/18	

BSK Associates Laboratory Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8081A - Quality Control											
Batch: A812197										Prepared: 8/21/2018	
Prep Method: EPA 3540C										Analyst: YNV	
Blank (A812197-BLK1)											
4,4'-DDD	ND	1.0	ug/kg wet							08/23/18	
4,4'-DDE	ND	1.0	ug/kg wet							08/23/18	
4,4'-DDT	ND	1.0	ug/kg wet							08/23/18	
Aldrin	ND	1.0	ug/kg wet							08/23/18	
alpha-BHC	ND	1.0	ug/kg wet							08/23/18	
beta-BHC	ND	1.0	ug/kg wet							08/23/18	
Chlordane	ND	50	ug/kg wet							08/23/18	
delta-BHC	ND	1.0	ug/kg wet							08/23/18	
Dieldrin	ND	1.0	ug/kg wet							08/23/18	
Endosulfan I	ND	1.0	ug/kg wet							08/23/18	
Endosulfan II	ND	1.0	ug/kg wet							08/23/18	
Endosulfan Sulfate	ND	1.0	ug/kg wet							08/23/18	
Endrin	ND	1.0	ug/kg wet							08/23/18	
Endrin Aldehyde	ND	1.0	ug/kg wet							08/23/18	
Heptachlor	ND	1.0	ug/kg wet							08/23/18	
Heptachlor Epoxide	ND	1.0	ug/kg wet							08/23/18	
Lindane	ND	1.0	ug/kg wet							08/23/18	
Methoxychlor	ND	1.0	ug/kg wet							08/23/18	
Toxaphene	ND	50	ug/kg wet							08/23/18	
Surrogate: TCMX	*14*			*15*		*95*	*10-138*			08/23/18	
Blank Spike (A812197-BS1)											
4,4'-DDD	2.0	1.0	ug/kg wet	2.0		100	40-134			08/23/18	
4,4'-DDE	1.9	1.0	ug/kg wet	2.0		97	46-139			08/23/18	
4,4'-DDT	1.9	1.0	ug/kg wet	2.0		94	38-156			08/23/18	
Aldrin	1.8	1.0	ug/kg wet	2.0		89	44-125			08/23/18	
alpha-BHC	1.7	1.0	ug/kg wet	2.0		85	30-137			08/23/18	

BSK Associates Laboratory Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8081A - Quality Control											
Batch: A812197										Prepared: 8/21/2018	
Prep Method: EPA 3540C										Analyst: YNV	
Blank Spike (A812197-BS1)											
beta-BHC	1.8	1.0	ug/kg wet	2.0		92	40-155			08/23/18	
delta-BHC	1.9	1.0	ug/kg wet	2.0		94	11-139			08/23/18	
Dieldrin	1.8	1.0	ug/kg wet	2.0		91	39-137			08/23/18	
Endosulfan I	1.9	1.0	ug/kg wet	2.0		94	38-132			08/23/18	
Endosulfan II	1.9	1.0	ug/kg wet	2.0		96	34-138			08/23/18	
Endosulfan Sulfate	1.8	1.0	ug/kg wet	2.0		89	38-144			08/23/18	
Endrin	2.2	1.0	ug/kg wet	2.0		111	22-161			08/23/18	
Endrin Aldehyde	1.4	1.0	ug/kg wet	2.0		72	42-142			08/23/18	
Heptachlor	2.4	1.0	ug/kg wet	2.0		120	44-133			08/23/18	
Heptachlor Epoxide	1.9	1.0	ug/kg wet	2.0		96	46-137			08/23/18	
Lindane	1.8	1.0	ug/kg wet	2.0		88	37-140			08/23/18	
Methoxychlor	2.1	1.0	ug/kg wet	2.0		103	42-161			08/23/18	
Surrogate: TCMX	*14*			*15*		*95*	*10-138*			08/23/18	
Blank Spike Dup (A812197-BSD1)											
4,4'-DDD	2.1	1.0	ug/kg wet	2.0		103	40-134	3	30	08/23/18	
4,4'-DDE	2.1	1.0	ug/kg wet	2.0		103	46-139	7	30	08/23/18	
4,4'-DDT	1.9	1.0	ug/kg wet	2.0		96	38-156	2	30	08/23/18	
Aldrin	1.9	1.0	ug/kg wet	2.0		96	44-125	7	30	08/23/18	
alpha-BHC	1.8	1.0	ug/kg wet	2.0		92	30-137	7	30	08/23/18	
beta-BHC	2.0	1.0	ug/kg wet	2.0		101	40-155	9	30	08/23/18	
delta-BHC	2.0	1.0	ug/kg wet	2.0		101	11-139	7	30	08/23/18	
Dieldrin	1.9	1.0	ug/kg wet	2.0		96	39-137	5	30	08/23/18	
Endosulfan I	2.0	1.0	ug/kg wet	2.0		100	38-132	6	30	08/23/18	
Endosulfan II	2.0	1.0	ug/kg wet	2.0		102	34-138	6	30	08/23/18	
Endosulfan Sulfate	1.9	1.0	ug/kg wet	2.0		96	38-144	8	30	08/23/18	
Endrin	2.4	1.0	ug/kg wet	2.0		122	22-161	9	30	08/23/18	

BSK Associates Laboratory Fresno

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 8081A - Quality Control											
Batch: A812197										Prepared: 8/21/2018	
Prep Method: EPA 3540C										Analyst: YNV	
Blank Spike Dup (A812197-BSD1)											
Endrin Aldehyde	1.4	1.0	ug/kg wet	2.0		71	42-142	1	30	08/23/18	
Heptachlor	2.6	1.0	ug/kg wet	2.0		129	44-133	7	30	08/23/18	
Heptachlor Epoxide	2.1	1.0	ug/kg wet	2.0		104	46-137	8	30	08/23/18	
Lindane	1.9	1.0	ug/kg wet	2.0		96	37-140	9	30	08/23/18	
Methoxychlor	2.1	1.0	ug/kg wet	2.0		105	42-161	2	30	08/23/18	
Surrogate: TCMX	*14*			*15*		*96*	*10-138*			08/23/18	
Matrix Spike (A812197-MS1), Source: V8H0281-01											
4,4'-DDD	110	5.5	ug/kg dry	110	ND	97	40-134			08/23/18	
4,4'-DDE	110	5.5	ug/kg dry	110	ND	97	46-139			08/23/18	
4,4'-DDT	110	5.5	ug/kg dry	110	ND	97	38-156			08/23/18	
Aldrin	100	5.5	ug/kg dry	110	ND	92	44-125			08/23/18	
alpha-BHC	100	5.5	ug/kg dry	110	ND	93	30-137			08/23/18	
beta-BHC	100	5.5	ug/kg dry	110	ND	94	40-155			08/23/18	
delta-BHC	140	5.5	ug/kg dry	110	ND	124	11-139			08/23/18	
Dieldrin	120	5.5	ug/kg dry	110	17	91	39-137			08/23/18	
Endosulfan I	100	5.5	ug/kg dry	110	ND	94	38-132			08/23/18	
Endosulfan II	110	5.5	ug/kg dry	110	ND	102	34-138			08/23/18	
Endosulfan Sulfate	110	5.5	ug/kg dry	110	ND	100	38-144			08/23/18	
Endrin	120	5.5	ug/kg dry	110	ND	109	22-161			08/23/18	
Endrin Aldehyde	87	5.5	ug/kg dry	110	ND	79	42-142			08/23/18	
Heptachlor	110	5.5	ug/kg dry	110	ND	95	44-133			08/23/18	
Heptachlor Epoxide	110	5.5	ug/kg dry	110	ND	97	46-137			08/23/18	
Lindane	100	5.5	ug/kg dry	110	ND	91	37-140			08/23/18	
Methoxychlor	110	5.5	ug/kg dry	110	ND	104	42-161			08/23/18	
Surrogate: TCMX	*390*			*410*		*94*	*10-138*			08/23/18	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	PicoCuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAP program for the following parameters:

Percent Solids

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno

EPA - UCMR4	CA00079	Los Angeles CSD	9254479	NELAP certified	4021-010
State of California - ELAP	1180	State of Hawaii	4021	State of Nevada	CA000792018-1
State of Oregon - NELAP	4021-010	State of Washington	C997-18		

Sacramento

State of California - ELAP	2435

San Bernardino

Los Angeles CSD	9254478	NELAP certified	4119-002	State of California - ELAP	2993
State of Oregon - NELAP	4119-002				

Vancouver

NELAP certified	WA100008-011	State of Oregon - NELAP	WA100008-011	State of Washington	C824-17

BSK ASSOCIATES

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Page 1 of 2

Turnaround Time Request
☒ Standard - 10 business days
☐ Rush (Surcharge may apply)
Date needed:

V8H0281 08/14/2018
OLSON4555 10

*Required Fields Temp: 28.2 IR#: 51

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*:	Fax*:
Olson Environmental, LLC	Kevin Grosz Additional cc's:	PO#:	360-693-4555	
			E-mail*: kevin@olsonenvironmental.com	

Address*:	City*:	State*:	Zip*:
222 Evergreen Blvd.	Vancouver	WA	98660

Project: La Center Middle School
Project #: E20069.02
Sampler Name (Printed/Signature)*: Ryan Thiele

Reporting Options: ☒ E-Mail ☐ Fax ☐ Mail ☐ Trace (J-Flag) ☐ Swamp ☐ EDD Type:

Compliance?: ☐ Yes ☐ No State: ☐ WA ☒ OR System/PWS ID: _____ DOH Source/Source ID: _____

Water System Name: _____ County: _____

Sample Composition: ☐ Single Source ☐ **Blended ☐ **Composite ☐ Distribution Sample
**List sources in Source ID field

Sample Taken: ☐ Before Treatment ☐ After Treatment ☒ No Treatment Group (WA only): ☐ A ☐ B

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description/Location*	Sampled* Date	Sampled* Time	Matrix*	Comments	# of cont.	EPA 8081A - Organochlorine Pesticides	Metals, CAM-17 3050
1	TP #1 - 6-12" Depth	8/14	9:50	SO		1	✔	✔
2	TP 2 - 18"		10:22	SO		1	✔	✔
3	TP 2 - 6-12"		10:25	SO		1	✔	✔
4	TP 2 - surface		10:30	SO		1	✔	✔
5	TP 3 - 6-12"		10:54	SO		1	✔	✔
6	TP 4 - 18"		11:11	SO		1	✔	✔
7	TP 4 - 6-12"		11:20	SO		1	✔	✔
8	TP 4 - surface		11:23	SO		1	✔	✔

Receipt Conditions in Vancouver: Temp: Received Via: UPS WALK-IN FED EX Courier: _____

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Ryan Thiele Ryan Thiele	Olson Environmental	8/14/2018	15:25		
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received for Lab by: (Signature and Printed Name)	
		8/14/18	1525		

Payment Received at Delivery: Check / Cash Date: Amount: PIA#: Init

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Alaskan Airlines Courier: _____ Custody Seal: Y / N

Cooling Method: Wet Blue None Chilling Process Begun: Y / N

BSK ASSOCIATES

2517 E. Evergreen Blvd.
Vancouver, WA 98661
P 360.750.0055
F 360.750.0057
www.bskassociates.com

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Turnaround Time Request
☒ Standard - 10 business days
☐ Rush (Surcharge may apply)
Date needed:

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OLSON4555 10
Y

*Required Fields Temp: IR#:

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*:	Fax*:
Olson Environmental, LLC	Kevin Grosz Additional cc's:	PO#:	360-693-4555 E-mail*: kevin@olsonenvironmental.com	

Address*:	City*:	State*:	Zip*:
222 Evergreen Blvd.	Vancouver	WA	98660

Project: La Center Middle School
Project #: E20069.02
Sampler Name (Printed/Signature)*: Ryan Thiele

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Water System Name: _____ County: _____

Sample Composition: ☐ Single Source ☐ **Blended ☐ **Composite ☐ Distribution Sample
**List sources in Source ID field

Sample Taken: ☐ Before Treatment ☐ After Treatment ☒ No Treatment Group (WA only): ☐ A ☐ B

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description/Location*	Sampled* Date	Sampled* Time	Matrix*	Comments	# of cont.	EPA 8081A - Organochlorine Pesticides	Metals, CAM-17 3050							
9	TP 7 - 6-12"	8/14	11:40	SO		1	✓	✓							
10	TP 5 - 6-12"		12:42	SO		1	✓	✓							
11	TP 6 - 6-12"		1:05	SO		1	✓	✓							
12	TP 8 - 18"		1:20	SO		1	✓	✓							
13	TP 8 - 6-12"		1:28	SO		1	✓	✓							
14	TP 8 - surface		1:33	SO		1	✓	✓							
15	TP 9 - 6-12"		2:02	SO		1	✓	✓							
16	TP 10 - 6-12"		2:35	SO		1	✓	✓							

Receipt Conditions in Vancouver: Temp: Received Via: UPS WALK-IN FED EX Courier: _____

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Ryan Thiele	Olson Environmental	8/14/2018	15:25		

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received for Lab by: (Signature and Printed Name)

Payment Received at Delivery: Check / Cash Date: Amount: PIA#: Init.

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Alaskan Airlines Courier: _____ Custody Seal: Y / N

Cooling Method: Wet Blue None Chilling Process Begun: Y / N

BSK Associates VAL-FL-0048-02

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OLSON4555 10

Sample Integrity

BSK Bottles: Yes No Page ____ of ____

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 8°C	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No NA	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No NA
Did all bottles arrive unbroken and intact?	Yes No	Was a sufficient amount of sample received?	Yes No
Did all bottle labels agree with COC?	Yes No	Do samples have a hold time <72 hours?	Yes No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No NA	Was PM notified of discrepancies? PM: By/Time:	Yes No NA

Bottles Received

"—" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks						
Bacti $Na_2S_2O_3$	—						
None (P) White Cap	—						
Cr6 (P) Lt. Green Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **DW**	Cl, pH > 8						
Cr6 (P) Pink Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **WW**	pH 9.3-9.7						
Cr6 (P) Black Label/Blue Cap $NH_4OH(NH_4)_2SO_4$ **7199** ***24 HOUR HOLD TIME***	pH 9.0-9.5						
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—						
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2						
NaOH (P) Green Cap	Cl, pH >10						
NaOH + ZnAc (P)	pH > 9						
Dissolved Oxygen 300ml (g)	—						
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—						
HCl (AG) Lt. Blue Label O&G, Diesel	—						
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—						
Na_2O_3S 250mL (AG) Neon Green Label 515	—						
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—						
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—						
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3						
NH_4Cl (AG) Purple Label 552	—						
EDA (AG) Brown Label DBPs	—						
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—						
Buffer pH 4 (CG)	—						
H_3PO_4 (CG) Salmon Label	—						
Other:							
Asbestos 1Liter Plastic w/ Foil	—						
Low Level Hg / Metals Double Baggie	—						
Bottled Water	—						
Clear Glass 250mL / 500mL / 1 Liter	—						
Soil Tube Brass / Steel / Plastic	—						
Tedlar Bag / Plastic Bag	—						

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Labeled by: _____ @ _____