

SAMPLING AND ANALYSIS PLAN – STORMWATER MAPPING & SAMPLING

FORMER BLUE HERON PAPER COMPANY MILL 419-427 MAIN STREET OREGON CITY, OREGON 97045 WSP PROJECT NO. 261M135583

Prepared for:

CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON

JUNE 16, 2023

TITLE AND APPROVAL PAGE

DOCUMENT TITLE:

Sampling and Analysis Plan – Stormwater Mapping & Sampling Former Blue Heron Paper Company Mill 419 – 427 Main Street, Oregon City, Oregon Cooperative Agreement Number BF-01J99101-0

PREPARED BY:

Dan Schall, PE John Kuiper, RG WSP USA Environment & Infrastructure Inc. 15862 SW 72nd Ave., Suite 150 Portland, Oregon 97224 (503) 941-4010

Date: June 16, 2023

Title	Printed name	Signature	Date of Approval
Margaret Olson, EPA Region 10 Brownfields, Project Officer	Margaret Olson		
Cindy Fields, EPA Region 10 QA Manager	Cindy Fields		
Mark Pugh, Oregon Department OF Environmental Quality, Project Manager	Mark Pugh		
Ryan Webb, Confederated Tribes of the Grand Ronde Community of Oregon, Project Manager	Ryan Webb		
John Kuiper, WSP, Project Manager	John Kuiper		
Dan Schall, WSP, Project Engineer	Dan Schall		
Matthew Brown, WSP, Field Manager / Site Health and Safety Officer	Matthew Brown		
Marie Bevier, WSP, QA/QC Manager	Marie Bevier		

DISTRIBUTION LIST

Margaret Olson, EPA Region 10 Brownfields, Project Officer

Mark Pugh, Oregon Department of Environmental Quality, Project Manager

Cindy Fields, EPA QA Manager

Ryan Webb, Confederated Tribes of the Grand Ronde Community of Oregon, Project Manager

John Kuiper, WSP USA Environment & Infrastructure Inc., Project Manager

Dan Schall, WSP USA Environment & Infrastructure Inc, Project Engineer

Matthew Brown, WSP USA Environment & Infrastructure Inc., Field Manager / Site Health and Safety Officer Marie Bevier, WSP USA Environment & Infrastructure Inc., QA/QC Manager

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ACRONYMS AND ABBREVIATIONS

Apex Apex Labs

BMP best management practices

CTGR Confederated Tribes of the Grand Ronde Community of Oregon

DEQ Oregon Department of Environmental Quality ECSI Environmental Cleanup Site Information

Enthalpy Enthalpy Analytical Laboratory

EPA United States Environmental Protection Agency

FM Field Manager

HASP Health and Safety Plan IDP Inadvertent Discovery Plan

ND Non Detect

OSHA Occupational Health and Safety Administration

OWP Overarching Work Plan

PAH polycyclic aromatic hydrocarbons

PCB polychlorinated biphenyls

PM Project Manager
PO Project Officer
PP priority pollutant

QA/QC quality assurance/quality control

QAM Quality Assurance Manual
QAPP Quality Assurance Project Plan
QAPP Quality Assurance Project Plan

RL Reporting Limit

SAP Sampling and Analysis Plan SHSO Site Health and Safety Officer

Site Former Blue Heron Paper Company Mill Site

SVOC semi volatile organic compounds
TEF toxicity equivalency factor
TPH total petroleum hydrocarbons
Vista Vista Analytical Laboratory

WSP USA Environment & Infrastructure Inc.

1 INTRODUCTION

WSP USA Environment and Infrastructure Inc. (WSP) has prepared this Sampling and Analysis Plan (SAP) for the Confederated Tribes of the Grand Ronde Community of Oregon (CTGR) Former Blue Heron Paper Company Mill Site (Site) under the December 2, 2021, contractual agreement with the CTGR. The Site is located at 419 - 427 Main Street in downtown Oregon City, Oregon, at a location next to the Willamette River (Figure 1). The Site is listed as Site ID: #4811 in the Oregon Department of Environmental Quality (DEQ) Environmental Cleanup Site Information (ECSI) database. This work is being conducted pursuant to the Prospective Purchaser Agreement (PPA) between the CTGR and the Oregon Department of Environmental Quality (DEQ).

The purpose of this SAP is to specify procedures for stormwater conveyance system mapping, and stormwater and sediment sampling, and to inform whether a removal of sediment material is warranted for source control. This SAP supports the Overarching Work Plan (OWP) for the Site (Wood, 2021). Sampling procedures will follow the Quality Assurance Project Plan (QAPP) (Stantec, 2022).

2 PROJECT MANAGEMENT

2.1 TITLE AND APPROVAL

A Title and Approval page is provided as page i of this document. The names and titles of the approving authorities are provided on the Title and Approval page and in Section 2.2 of this SAP.

2.2 PROJECT ORGANIZATION

The project implementation team will be led by WSP Project Manager (PM) John Kuiper. Key team member roles and responsibilities are summarized below:

Environmental Protection Agency Region 10 Brownfields Project Officer: Margaret Olson

Phone: (503) 326-5874

The EPA Region 10 Brownfields Project Officer (PO) will review and approve the SAP and will monitor activities completed under the EPA Brownfields Grant.

EPA Region 10 Quality Assurance Manager: Cindy Field

Phone: (206) 553-1893

The EPA Region 10 Quality Assurance Manager (RQAM) will review and approve the SAP.

Oregon Department of Environmental Quality Project Manager: Mark Pugh

Phone: (503) 229-5587

The DEQ PM is responsible for DEQ oversight and document review to ensure that environmental cleanup and follow-up sampling activities are conducted in accordance with DEQ requirements. The DEQ PM will provide DEQ's approval of the SAP.

Confederated Tribes of the Grande Ronde Community of Oregon Project Manager: Ryan Webb

Phone: (503) 879-2404

The CTGR PM is the primary point of contact for all communication with the United States Environmental Protection Agency (EPA), DEQ, and WSP. The CTGR PM is responsible for overall project management, contract management, project cost accounting, and all other business-related project tasks. The CTGR PM will coordinate

required reporting to the EPA PO and will ensure that procurement processes related to the project comply with government requirements.

Project Manager: John Kuiper, RG, WSP USA Environment & Infrastructure Inc.

Phone: (503) 704-7793

The WSP PM will coordinate all project activities, provide technical support, and oversight to the project, and ensure that resources necessary to complete the project are available. The PM will review all project deliverables, including verifying the transcription of laboratory data into report text and summary tables, to ensure that high-quality work products are produced.

Project Engineer: Dan Schall, PE, WSP USA Environment & Infrastructure Inc.

Phone: (503) 501-8672

The WSP Project Engineer will coordinate all field activities, including scheduling and subcontractor coordination, and will provide technical oversight for implementation of this SAP. The Project Engineer will manage the project, communicate with team members, coordinate daily operations, and maintain control over the schedule, budget, and technical aspects of the project. The Project Engineer will be responsible for project deliverables and will manage subcontractor procurement.

Field Manager / Site Health and Safety Officer: Matthew Brown, PE, WSP USA Environment & Infrastructure Inc.

Phone: (512) 569-6271

The Field Manager (FM) will be responsible for implementing proposed field activities, including stormwater mapping, sample collection, documentation, and delivery of samples to the laboratory. The Site Health and Safety Officer (SHSO) will review/update the Site-specific Health and Safety Plan (HASP) in accordance with Occupational Health and Safety Administration (OSHA) guidelines. The SHSO will be responsible for ensuring that project personnel have received appropriate levels of training and that field operations are conducted in accordance with appropriate health and safety protocols.

Quality Assurance/Quality Control Manager: Marie Bevier, EAC, CHMM, WSP USA Environment & Infrastructure Inc.

Phone: (503) 270-8488

The Quality Assurance/Quality Control (QA/QC) Manager is responsible for the overall quality of data generated in completing the Project. The QA/QC Manager will review data and propose corrective actions, if necessary, for discrepancies. The QA/QC Manager may delegate review of data to confirm compliance with the overall project QAPP. They may also delegate data review responsibilities to the WSP PM when appropriate.

Analytical Laboratory: Apex Labs - Project Manager: Philip Nerenberg

Phone: (503) 523-6123

Apex Labs (Apex) will be responsible for providing all analytical testing services for stormwater and sediment samples described in this SAP, except for dioxins/furans. The Apex PM assigned to this project will report to the WSP QA/QC Manager or designee. The Quality Assurance Manual (QAM) for Apex has been provided previously in the QAPP.

Analytical laboratory: Enthalpy Analytical Laboratory - Project Manager: Karen Volpendesta

Phone: (916) 673-1520 ext. 123

Enthalpy Analytical Laboratory (formerly known as Vista Analytical Laboratory [Vista]) will be responsible for providing analytical testing services for dioxins and furans. The Enthalpy PM assigned to this project will report to the WSP QA/QC Manager or designee. A copy of the QAM and National Environmental Laboratory Accreditation Program (NELAP) certificate for Enthalpy (under the Vista name) is provided in Attachment 1.

Contractors: To Be Determined (TBD)

The contractor will be selected after the SAP is approved and CTGR completes a contractor bidding process. Only qualified contractors will be invited to bid, which will consist of at least two contractors. WSP and CTGR have already met with US Ecology and Cowlitz Clean Sweep on-site prior to SAP preparation.

3 PREVIOUS STORMWATER INVESTIGATION, INITIAL SITE STABILAZATION MEASURES, & CONVEYANCE MAPPING

To gain a better understanding of the Site and how its stormwater conveyance systems relate to Site Stabilization and High Priority Remedial Actions, Wood Environment & Infrastructure Solutions, Inc. (Wood; now WSP) conducted an initial Site visit on November 4, 2019. During the visit, stormwater features throughout the Site (catch basins, manholes, trench drains, outfalls, downspout mixed-media filters, etc.) were inspected to identify opportunities for implementing initial Best Management Practices (BMPs) to protect stormwater quality. In September 2020, sampling of stormwater and sediment occurred at Site catch basins and drainage features. This was followed by the cleanout of various catch basins and drainage features, street sweeping, and installation of catch basin filters and absorption booms between January and February 2021. Maps showing the drainage basins and stormwater conveyance systems at the Site were provided in the OWP; however, the connectivity, conditions, and characteristics of the stormwater features were still not fully understood.

The first stormwater conveyance mapping event was undertaken to include only above-ground work at accessible stormwater structures that did not require confined space entry or additional safety protocols. This event utilized a common duct rodding approach to determine which pipes could be located by this method, and to help determine the level of effort and additional methods that would need to be utilized in subsequent mapping events, which would likely include in-line sediment removal. The stormwater-related investigation activities are part of an iterative process to understand how the Site's stormwater collection and conveyance systems are interconnected and how they function.

On August 16 and 17, 2021, Wood (WSP) and Locates Down Under, Inc. (Locates Down Under; based in Oregon City) visited the Site to map and better understand the Site's stormwater conveyance system and drainage characteristics. Wood (WSP) and Locates Down Under verified stormwater feature connections by use of a traceable duct rod line (both small and large sizes were used) and visual observations. The "duct rod" technique utilizes a detectable rod consisting of a copper wire encased within the center of a fiberglass core that is pushed through pipes from manholes, catch basins, and other accessible openings. A transmitter is then connected to the duct rod so that an easily identifiable signal is transmitted along the entire length of the duct rod, which can then be detected by a handheld receiver at the ground surface.

All accessible catch basins, drains, and manholes at the Site were inspected during this work. However, not all infrastructure connections could be verified due to certain features having: 1) size limitations and/or depths requiring confined space entry procedures, 2) debris clogging pipes, and/or 3) other pipe obstructions. For example, while attempting the rodding of pipes larger than 24-inch in diameter, the duct rod would coil up within the larger pipe instead of advancing further down-pipe when more line was fed. Successfully rodding these larger diameter pipes will require confined space entry and/or other techniques. Currently, approximately 75 percent of the Site's stormwater conveyance system, connections, and drainage basin boundaries have been confirmed (Wood, 2022).

4 ADDITIONAL STORMWATER CONYEANCE SYSTEM MAPPING

The proposed second round of conveyance investigation is intended to complete the remaining stormwater mapping that was unable to be completed using only a traceable duct rod during the first round of mapping. Work will include accessing and tracing the larger diameter pipes, line flushing and sediment removal (and mapping) of those features that contained obstructions, tracing stormwater connections inside buildings, and additional mapping of the tailrace features. Investigation techniques will be expanded to include camera scoping, dye/smoke testing, and additional remote sensing methods. Additionally, performing work in permit confined spaces may be required to complete this scope of work. Camera scoping is also needed to assess the volume and extent of legacy sediment and whether an in-line cleanout is warranted for a particular pipe segment, and to determine the nature of line blockages. For any line flushing and jetting, a downstream collection point will be identified to the maximum extent practical, and all water and sediment will be collected and vacuumed at that point, before being transported and placed in vacuum boxes, tanks, or roll-off boxes and covered on-site. Locations of the storage boxes/tanks will be determined based on proximity to the generating area and general site logistics, including accommodating other construction activities at the Site.

This SAP includes multiple investigative techniques to ensure the conveyance system mapping is completed to the maximum extent practicable. However, predetermining the exact technique to utilize at each feature of the stormwater system would be too restrictive due to the mixture of unknown site conditions and defaulting to the most comprehensive technique(s). Therefore, field staff will follow the decision hierarchy below to determine the appropriate investigative techniques to utilize based on the observed conditions at each stormwater feature. Attachment 1 will be updated as this investigation and mapping progresses.

Hierarchy of Investigation Techniques

(ordered from least comprehensive to most comprehensive)



- Special considerations:
- If pipe access is too deep within the manhole, catch basin, or vault, then confined space entry may be needed.
- Duct rod is susceptible to coiling up on itself if the pipe is relatively large.
- Duct rod may not be able to pass through pipe obstructions.
- Many lines successfully and unsuccessfuly mapped with duct rod during previous investigation.



- Special considerations:
- If pipe access is too deep within the manhole, catch basin, or vault, then confined space entry may be needed.
- Smoke and dye may not be able to pass through pipe obstructions.
- \bullet Requires visual or instrumentation access to the recieving stormwater feature.

Camera Scope

- Special considerations:
- If pipe access is too deep within the manhole, catch basin. or vault, then confined space entry may be needed.
- Camera scope may not be able to pass through pipe obstructions.
- Visual observations through camera scope may be impeded by high water levels in pipes.

Line Cleaning

- Special considerations:
- Previous conveyance mapping effort has already identified stormwater features that would benefit from cleaning.
- Physical deformations of the pipe may impede effectivness of cleaning.
- Requires access via vacuum truck to recieving stormwater feature.

Post-Cleaning Camera

- Special considerations:
- While post-cleaning connection could potentially be verified with other technologies, it is assumed that the camera scope is already mobilized at the Site and will therefore be utilized instead of the other technologies.
- Cleaning may reveal pipe obstructions to be physical deformations in the pipe and therefore still impassable with the camera.

After in-line sediment removal, vacuum cleanup, and sampling (see Section 5 below), all equipment will be decontaminated. The decontamination water will remain in temporary on-site storage tanks until laboratory results for the collected sediment/water samples are reviewed and evaluated to determine disposal options. Until disposal, all roll-off boxes, tanks, and vacuum boxes will be covered and secured to prevent entry, including rainfall accumulation, and their valves/drains secured to prevent vandalism.

<u>Health and Safety Plan (HASP)</u> - A Site-Wide Project HASP has been prepared (Stantec, Wood, Akana, and Haley & Aldrich, 2022) and WSP will update our company's site-specific HASP for work at the Site. this will also apply to section 5 below.

<u>Inadvertent Discover Plan (IDP)</u> – CTGR has prepared a draft IDP for the site that will be strictly adhered to by WSP and all WSP subcontractors. A copy of the draft IDP is included as Attachment 4. WSP will coordinate with CTGR's Tribal Historical Preservation Officer, Brice Edwards, regarding potential historical significance of certain stormwater conveyance pipes (e.g., wooden pipes) and methods to protect them during investigation and cleanup work. this will also apply to section 5 below.

5 SAMPLING AND ANALYSIS

Procedures:

Sediment

Sediment samples will be collected at Tailraces H, 1, and 2, as shown on Figures 3, 4, and 5, and will be sampled in accordance with the following procedures:

- Before sampling, digging, or hand auguring occurs, public and private utility locates will be completed.
- Sediment will be collected from a depth of 0 to 0.5 feet, and a second sample will be obtained from a depth of 1.0 to 1.5 feet, where sufficient depth of sediment is achievable. Note: these depths are with respect to the top of sediment surface. If gravel or rock is present at the surface, the sampling interval will be adjusted to begin at the top of finer-grained sediment conducive to sampling. Maximum depth of sediments at the Site is expected to be 3.0 feet thick, and the maximum depth of sediment samples collected will be 4.0 feet below top of sediment. The depths of sediment will be measured utilizing hand probes, an 8- to 10-foot-long piece of rebar, or similar methods.
- The date, time, weather, and physical condition of the sample location, and its immediate vicinity (e.g., evidence of ponded surface water, stained soil or surface water, odors, or other observations) will be recorded.
- The sediment samples will be obtained using a stainless-steel sampling tool, hand auger, or clam shell sampler in areas where there is ponded water (example Wildco Petite Ponar®).
- Individual grab sediment samples will be obtained and tested for polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPHs), priority pollutant (PP) metals, and dioxins and furans.
- All used equipment and tools will be decontaminated before and after use at each sampling interval or location by using a water rinse/scrub, a deionized water/Alconox® soap wash, and a deionized water rinse.
 Rinsate will be containerized in a 55-gallon drum labelled with the date, location, and waste type. The drum will be securely stored pending its proper disposal.

Stormwater

Influent and effluent stormwater samples will be collected at the gabion filter media units and downspout bio-filters. The gabion filter samples will be collected at Tailrace H and 1, as shown on Figures 3 and 4. Samples for the downspout bio-filter units will be collected at DS-11, DS-15, and DS-23, as shown on Figure 2. The pre and post BMP samples will represent performance samples (influent versus effluent) and will be sampled by the following procedure:

- Obtain the samples by filling laboratory-supplied containers directly from the flow stream, ponded water, downspout, and/or media filter sample port.
- Individual grab stormwater samples will be obtained and tested at the analytical laboratory for total and dissolved PP metals and total suspended solids (TSS).
- In the field the individual grab stormwater samples will be analyzed for pH, specific conductivity, and temperature utilizing a handheld water quality meter.

Disposal

Sediment and water collected that is temporarily stored in roll-off boxes, tanks, drums, and vacuum boxes from conveyance pipe jetting and removal activities will be sampled for PCBs, PAHs, TPHs, PP metals (total and dissolved phase metals for storm water), and dioxins and furans. Where sediment can be collected, sediment will be sampled as a preference over the water. Sampling procedures, as described above for sediment and stormwater, will be utilized for disposal sampling as well. WSP will also coordinate with disposal facilities to determine appropriate number of samples based on the volume of materials collected.

Samples and Analysis:

The laboratory analysis will consist of one or more of the following:

- PCBs by EPA Method 608.3 or 8082A
- PAHs by EPA Method 8270E-SIM
- TPH Identification scan by Northwest Method TPH-HCID
 - Follow-up analysis for TPH products in the gasoline-, diesel- and heavy oil-ranges by Northwest Methods TPH-GX and/or TPH-Dx.
- Priority Pollutant Metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by EPA Method 6020B or 200.8
 - Stormwater samples will include both total and dissolved metals, and dissolved metals will be filtered at the lab.
 - As-needed, follow-up by toxicity characteristic leaching procedure (TCLP) and metals analysis by EPA
 Methods 1311 and 6020B for selected Resource Conservation and Recovery Act (RCRA) Hazardous Metals
 that exceed total metals targets.
- Dioxins/Furans by EPA Method 1613B. [Note: The sediment screening values are in accordance with an email received from DEQ (Mark Pugh) dated 13 May 2023. While it is possible to meet the screening criteria for 2,3,7,8-TCDD and 1,2,3,7,8-PeCDD, the screening criteria for 2,3,4,7,8-PeCDF and 1,2,3,4,7,8-HxCFD cannot be met. Therefore, for 2,3,4,7,8-PeCDF and 1,2,3,4,7,8-HxCFD we will evaluate resultant data using fish, mammalian, and avian toxicity equivalency factors (TEFs); with non-detect (ND) results set to half the laboratory reporting limit (RL), which will provide a conservative estimate of the impact of sediment concentrations on potential target receptors.]
- Total Suspended Solids by Standard Methods for the Examination of Water and Wastewater 2540D for stormwater samples only

This analytical suite has been chosen based on historically detected Contaminants of Concern at the Site and guidance from Oregon DEQ.

The samples will be submitted to Apex Laboratories in Tigard, Oregon for all analytes except for dioxins/furans, and to Enthalpy Analytical Laboratory Inc. in El Dorado Hills, California for dioxins/furans. A copy of the quality assurance manual and laboratory certificate for Enthalpy (under the Vista name) is attached. Laboratory documents for Apex were previously provided in the QAPP.

Tables 1, 2, and 3 (attached) provide specific details on the samples to be collected (sample identification, container type/number, and type of preservative) and Table 4 and 5 (attached) provides comparisons of laboratory detection limits provided by the selected lab compared to limits specified in the QAPP.

TSS was not included as a target analyte in the programmatic QAPP. Sensitivity and QXC limits for TSS analyses are specified in Table 6.

After sampling, all equipment will be decontaminated or placed in containers for disposal.

A Site-Wide Project HASP has been prepared (Stantec, 2022). WSP will update our company's site-specific HASP for work at the Site.

6 REPORTING

Once this second round of stormwater conveyance mapping is completed, site stormwater figures including drainage basin maps will be updated. After receiving the laboratory analytical results for the stormwater and sediment samples, a written report will be provided to the CTGR, DEQ, and EPA. The report will provide the following information:

- Results of the stormwater conveyance mapping and updated figures showing the conveyance configurations
- Figure showing all sampling locations
- Volume of water and sediment collected during in-line sediment removal, flushing, and vacuum collection services
- Disposal profiling;
- Disposal records
- Analytical data reports with comparisons to Decision Criteria, as specified in the QAPP; specifically, the results will be compared to:
 - DEQ risk-based concentrations (DEQ 2018);
 - DEQ Conducting Ecological Risk Assessments (DEQ 2020);
 - DEQ SLVs for the Downtown and Upper Reach of the lower Willamette River
 - Portland Harbor Remedial Action Levels and Principal Threat Wastes
- Discussion of deviations from the procedures described in this SAP (or the referenced QAPP); and
- Recommendations for Next Steps, including summary of data gaps.

7 SCHEDULE

WSP will schedule the field work after receipt of EPA and DEQ approval of this SAP, and coordination with the subcontractor(s). The work is anticipated to begin during Quarter 3 of 2023, assuming reasonable contractor availability and weather. It is anticipated that the field work covered by this SAP will require two to four weeks to complete. Sediment sampling may require dry weather in the July to September timeframe to safely access tailrace locations during low-water conditions. A draft report will be prepared for this project within three to four weeks of receipt of final laboratory results.

If you have any questions regarding this SAP, please contact the undersigned.

We appreciate the opportunity to assist the CTGR with this project. If you have any questions, please contact the undersigned at 503-941-4010 (Dan Schall) or 503-941-4025 (John Kuiper).

Sincerely,

WSP USA

Environment & Infrastructure Inc.

Dan Schall, PE Project Engineer Reviewed by:

John L. Kuiper, RG Project Manager, WSP

8 REFERENCES

- Beckham, Stephen, 2018. The Willamette Falls Fishery: Tribal Use and Occupancy, Treaties, Reserved Rights,
 Adjudicated Claims, and Tribal Fishing in the Modern Era." November 5, 2018.
- DEQ, 2020. Conducting Ecological Risk Assessments, Oregon Department of Environmental Quality. September 14, 2020.
- DEQ, 2019. Prospective Purchaser Agreement: Department of Environmental Quality., 700 NE Multnomah St., Ste 600, Portland, Oregon. 2019.
- Madin, I., 2009. Geological Map of the Oregon City 7.5' Quadrangle, Clackamas County, Oregon. Oregon
 Department of Geology and Mineral Industries Geological Map Series GMS-119.
- Stantec, 2022. Master Quality Assurance Project Plan (Revision 1) FORMER BLUE HERON MILL SITE: Stantec Consulting Services Inc., 601 SW 2nd Avenue, Suite 1400, Portland, Oregon. May 13, 2022.
- Wood, 2019. Initial Summary Report Former Blue Heron Paper Company Mill: Wood Environment & infrastructure Solutions Inc., 15862 SW 72nd Ave., Suite 150, Portland, Oregon. October 15, 2019.
- Wood, 2021. Overarching Work Plan (Revision 1) Former Blue Heron Paper Company Mill: Wood Environment
 & Infrastructure Solutions Inc., 15862 SW 72nd Ave., Suite 150, Portland, Oregon. July 9, 2021.
- Wood, 2022. Initial Stormwater Conveyance System Mapping Results (Revision 1) Former Blue Heron Paper Company Mill: Wood Environment & Infrastructure Solutions Inc., 15862 SW 72nd Ave., Suite 150, Portland, Oregon. January 12, 2022.

9 LIMITATIONS

WSP services have been performed in accordance with the normal and reasonable standard of care exercised by similar professionals performing services under similar conditions and geographic locations. Except for our stated standard of care, no other warranties or guarantees are offered as part of WSP's contracted services.

TABLES

Table 1
Tailrace Sediment Analytical Tests

Constituent	Container ¹	Preservation	Maximum Holding Time From Sampling to Preparation/ Preparation to Analysis or Sampling to Analysis
Samples BH_TRH-#_Depth_YYY	YMMDD, BH_TR1-#_Depth_YYYYMM	IDD, BH_TR2-#_Dep	oth_YYYYMMDD
Polychlorinated biphenyls (PCBs) by EPA Method 8082A	8 oz glass jar	≤ 6°C	None
Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM	8 oz glass jar	≤ 6°C	14/40 days
Hydrocarbon Identification by Northwest Method TPH-HCID	8 oz glass jar	≤ 6°C	14/40 days
TPH (gasoline range) by Northwest Method TPH-Gx	40 mL VOA Vial	Methanol, ≤ 6°C	14 days (Sampling to Analysis)
TPH (diesel and heavy oil range) by Northwest Method TPH-Dx	8 oz glass jar	≤ 6°C	14/40 days
Priority Pollutant (PP) Metals (13) by EPA 6020B	8 oz glass jar	≤ 6°C	28 days for mercury 180 days for other metals (Sampling to Analysis)
Dioxins/Furans by EPA Method 1613B	(2) 4 oz amber glass jars	0 to 4°C in the dark from collection until receipt at the lab. Samples and extracts must be stored by the lab in the dark at < - 10°C	1/1 year

Note:

Abbreviations:

°C = degrees Celsius

EPA = United States Environmental Protection Agency

mL = milliliter

oz = ounce

VOA = volatile organic analysis

¹ Multiple analyses may be performed using the same container as long as all method-specified perservation criteria are met. WSP anticipats collecting two 8 oz jars and 1 methanol-preserved VOA vial/sample for submittal to Apex and two 4 oz amber glas jars/sample for submittal to Enthalpy.

Table 2
Gabion Filters_Downspout Biofilters Stormwater Analytical Tests

Constituent	Container	Preservation	Maximum Holding Time From Sampling to Preparation/ Preparation to Analysis or Sampling to Analysis
	YYMMDD, BH_TRH_PostGab_YYYYM YYYMMDD, BH_DS#Pre_YYYYMMD		
Polychlorinated biphenyls (PCBs) by EPA Method 8082A	(2) 1 L amber glass	≤ 6°C	1 year (Sampling to Analysis)
Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM	(2) 1 L amber glass	≤ 6°C	7/40 days
Hydrocarbon Identification by Northwest Method TPH-HCID	1 L amber glass	≤ 6°C HCl to pH < 2 (recommended)	7/40 days
TPH (gasoline range) by Northwest Method TPH-Gx	(3) 40 mL VOA vials	≤6°C HCl to pH < 2	14 days (pH < 2) 7 days (pH ≥ 2) (Sampling to Analysis)
TPH (diesel and heavy oil range) by Northwest Method TPH-Dx	(2) 1 L amber glass	≤6°C HCl to pH < 2	14/40 days (pH < 2) 7/40 days (pH ≥ 2) (Sampling to Analysis)
Priority Pollutant (PP) Metals (13) by EPA Method 6020B	250 mL HDPE	HNO₃ to pH < 2 Unpreserved for dissolved metals to be filtered by the laboratory	28 days for mercury 180 days for other metals (Sampling to Analysis)
Dioxins/Furans by EPA Method 1613B	(2) 1 L amber glass	0 to 4°C in the dark from collection until receipt at the lab. Samples and extracts must be stored by the lab in the dark at < - 10°C	1/1 year
TSS by SM 2540D	250 to 1000 mL HDPE	≤ 6°C	7 days (Sampling to Analysis)

Abbreviations:

°C = degrees Celsius

EPA = United States Environmental Protection Agency

HCl = Hydrochloric acid

 HNO_3 = Nitric acid

HDPE = High-density polyethylene

L = liter

mL = milliliters

SM = Standard Methods for the Examination of Water and Wastewater

TSS = Total suspended solids

Note: Downspout Bio-filters Priority Pollutant Metals Only

Table 3 Disposal Profiling Analytical Tests

Constituent Container		Preservation	Maximum Holding Time From Sampling to Preparation/ Preparation to Analysis or Sampling to Analysis				
	Samples BH_DPSW#_YYYYMMDD						
Polychlorinated biphenyls (PCBs) by EPA Method 8082A	8-oz glass jar	≤ 6°C	None				
Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270E SIM	8-oz glass jar	≤ 6°C	14/40 days				
TPH (diesel and heavy oil range) by Northwest Method TPH-Dx	8-oz glass jar	≤ 6°C	14/40 days				
Priority Pollutant (PP) Metals (13) by EPA Method 6020B	8-oz glass jar	≤ 6°C	28/28 days for mercury 180/180 days for other metals				
Dioxins/Furans by EPA Method 1613B	(2) 4-oz amber glass jars	0 to 4°C in the dark from collection until receipt at the lab. Samples and extracts must be stored by the lab in the dark at < - 10°C	1/1 year				
Toxicity Characteristic Leaching Procedure (TCLP) Metals by EPA Methods 1311/6020B	8 oz glass jar	≤ 6°C	28/28 days for mercury, 180/180 days for other metals				

Note:

Abbreviations:

°C = degrees Celsius

EPA = United States Environmental Protection Agency

¹ Multiple analyses may be performed using the same container as long as all method-specified perservation criteria are met. WSP anticipats collecting two 8 oz jars for submittal to Apex and two 4 oz amber glas jars/sample for submittal to Enthalpy.

Table 4
Soil Laboratory Detection Limits and RBC Screening Levels

Analyte	Method	Laboratory Method Detection Limit	Laboratory Quantitation Limit	Soil Ingestion, Dermal Contact, and Inhalation (Urban Residential) Screening Level ¹	Leaching to Groundwater (Urban Residential) Screening Level ¹	Sediment Screening Levels ²	Units
Acenaphthene	EPA 8270E-SIM	0.005	0.010	9,400			mg/kg
Acenaphthylene	SW8270E	0.005	0.010				mg/kg
Anthracene	SW8270E	0.005	0.010	47,000			mg/kg
Benz(a)anthracene	SW8270E	0.005	0.010	2.5	6.000		mg/kg
Benzo(a)pyrene	SW8270E	0.005	0.010	0.25		0.085	mg/kg
Benzo(a)pyrene	SW8270E	0.005	0.010	0.25		0.085	mg/kg
equivalents	CIMOOZOE	2 225	0.010	0.5			/1
Benzo(b)fluoranthene	SW8270E	0.005	0.010	2.5			mg/kg
Benzo(k)fluoranthene	SW8270E	0.005	0.010	25			mg/kg
Benzo(b+k)fluoranthene(s)	SW8270E	0.010	0.020	25			mg/kg
Benzo(g,h,i)perylene	SW8270E	0.005	0.010				mg/kg
Chrysene	SW8270E	0.005	0.010	250			mg/kg
Dibenz(a,h)anthracene	SW8270E	0.005	0.010	0.25			mg/kg
Fluoranthene	SW8270E	0.005	0.010	4,800			mg/kg
Fluorene	SW8270E	0.005	0.010	6,300			mg/kg
Indeno(1,2,3-cd)pyrene	SW8270E	0.005	0.010	2.5			mg/kg
1-Methylnaphthalene	SW8270E	0.005	0.010				mg/kg
2-Methylnaphthalene	SW8270E	0.005	0.010				mg/kg
Naphthalene	SW8270E	0.005	0.010	25	0.37		mg/kg
Phenanthrene	SW8270E	0.005	0.010				mg/kg
Pyrene	SW8270E	0.005	0.010	3,600			mg/kg
Carbazole	SW8270E	0.005	0.010				mg/kg
Dibenzofuran	SW8270E	0.005	0.010				mg/kg
Aroclor 1016	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1221	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1232	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1242	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1248	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1254	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1260	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1262	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Aroclor 1268	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Total PCBs	SW8082A	0.005	0.010	0.33		0.009	mg/kg
Total Organic Carbon	EPA9060A	200	200				mg/kg
Diesel Range Organics	NWTPH-Dx	10.0	25.0	2,200	9,500		mg/kg
Oil	NWTPH-Dx	20.0	50.0	2,200	9,500		mg/kg
Arsenic	SW6020B	0.500	1.00	1.0		2.9	mg/kg
Cadmium	SW6020B	0.100	0.200	160		0.63	mg/kg
Chromium	SW6020B	0.500	1.00	230,000		76	mg/kg
Lead	SW6020B	0.100	0.200	400	30	35	mg/kg
Mercury	SW6020B	0.0400	0.0800	47		0.2	mg/kg
Selenium	SW6020B	0.500	1.00				mg/kg
Silver	SW6020B	0.100	0.200	780			mg/kg
Beryllium	SW6020B	0.100	0.200	310			mg/kg
Copper	SW6020B	1.00	2.00	6,200			mg/kg
Nickel	SW6020B	1.00	2.00	3,100			mg/kg
Antimony	SW6020B	0.500	1.00				mg/kg
Thallium	SW6020B	0.100	0.200				mg/kg

Table 4
Soil Laboratory Detection Limits and RBC Screening Levels

Analyte	Method	Laboratory Method Detection Limit	Laboratory Quantitation Limit	Soil Ingestion, Dermal Contact, and Inhalation (Urban Residential) Screening Level ¹	Leaching to Groundwater (Urban Residential) Screening Level ¹	Sediment Screening Levels ²	Units
Zinc	SW6020B	2.00	4.00			123	mg/kg
2,3,7,8-TCDD	EPA 1613B	0.273	0.500	12	31	1.0	pg/g
2,3,7,8-TCDD toxicity equivalents (Dioxin TEQ)	EPA1613B	0.273	0.50	12	31	10	pg/g
1,2,3,7,8-PeCDD	EPA1613B	0.608	2.50			2.5	pg/g
1,2,3,4,7,8-HxCDD	EPA1613B	0.710	2.50				pg/g
1,2,3,6,7,8-HxCDD	EPA1613B	0.668	2.50				pg/g
1,2,3,7,8,9-HxCDD	EPA1613B	0.694	2.50				pg/g
1,2,3,4,6,7,8-HpCDD	EPA1613B	0.655	2.50				pg/g
OCDD	EPA1613B	1.85	5.00				pg/g
2,3,7,8-TCDF	EPA1613B	0.256	0.500			0.40658	pg/g
1,2,3,7,8-PeCDF	EPA1613B	0.724	2.50				pg/g
2,3,4,7,8-PeCDF	EPA1613B	0.736	2.50			0.3	pg/g
1,2,3,4,7,8-HxCDF	EPA1613B	0.764	2.50			0.4	pg/g
1,2,3,6,7,8-HxCDF	EPA1613B	0.924	2.50				pg/g
2,3,4,6,7,8-HxCDF	EPA1613B	0.765	2.50				pg/g
1,2,3,7,8,9-HxCDF	EPA1613B	0.737	2.50				pg/g
1,2,3,4,6,7,8-HpCDF	EPA1613B	0.889	2.50				pg/g
1,2,3,4,7,8,9-HpCDF	EPA1613B	0.765	2.50				pg/g
OCDF	EPA1613B	1.51	5.00				pg/g

Notes

Bold: Limit exceeds one or more RBC(s)

¹ Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals (DEQ, 2018)

 $^{^2}$ Sediment Screening and Trigger Levels Lowest Screening Levels Values – Lower Willamette River, Downtown and Upriver Reaches (DEQ , 2020)

Table 5
Water Laboratory Detection Limits and RBC Screening Levels

Analyte	Method	Laboratory Method Detection Limit	Laboratory Quantitation Limit	RBC - Volatilization to Outdoor Air (Urban Residential)	RBC - Ingestion & Inhalation from Tapwater (Urban Residential)	RBC - Freshwater Chronic Risk	Wildlife RBC - Birds	Wildlife RBC - Mammals	Units
1-Methylnaphthalene	SW8270E	0.0200	0.0400			6.1			μg/L
2-Methylnaphthalene	SW8270E	0.0200	0.0400			4.7			μg/L
Acenaphthene	SW8270E	0.0100	0.0200	-	2400	15		310,000	μg/L
Acenaphthylene	SW8270E	0.0100	0.0200			13		310,000	μg/L
Anthracene	SW8270E	0.0100	0.0200	-		0.02		440,000	μg/L
Benz(a)anthracene	SW8270E	0.0100	0.0200		0.11	4.7		760	μg/L
Benzo(a)pyrene	SW8270E	0.0150	0.0300		0.08	0.06		4,400	μg/L
Benzo(a)pyrene equivalents	SW8270E	0.0150	0.0300		0.08	0.06		4,400	μg/L
Benzo(b)fluoranthene	SW8270E	0.0150	0.0300		0.8	2.6		17,000	μg/L
Benzo(b+k)fluoranthene(s)	SW8270E	0.0300	0.0600						μg/L
Benzo(g,h,i)perylene	SW8270E	0.0100	0.0200			0.012		32,000	μg/L
Benzo(k)fluoranthene	SW8270E	0.0150	0.0300			0.06		32,000	μg/L
Carbazole	SW8270E	0.0150	0.0300			4			μg/L
Chrysene	SW8270E	0.0100	0.0200	-		4.7		760	μg/L
Dibenz(a,h)anthracene	SW8270E	0.0100	0.0200		0.08	0.012		5,900	μg/L
Dibenzofuran	SW8270E	0.0100	0.0200			4			μg/L
Fluoranthene	SW8270E	0.0100	0.0200	-		0.8		56,000	μg/L
Fluorene	SW8270E	0.0100	0.0200	-	1400	19		560,000	μg/L
Indeno(1,2,3-cd)pyrene	SW8270E	0.0100	0.0200			0.012		32,000	μg/L
Naphthalene	SW8270E	0.0200	0.0400	8,500	0.78	21	57	2,200	μg/L
Phenanthrene	SW8270E	0.0100	0.0200			2.3		23,000	μg/L
Pyrene	SW8270E	0.0100	0.0200	-		4.6		33,000	μg/L
Aroclor 1016	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1221	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1232	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1242	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1248	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1254	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1260	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1262	SW8082A	0.0500	0.100		0.28				μg/L
Aroclor 1268	SW8082A	0.0500	0.100		0.28				μg/L
Total PCBs	SW8082A	0.0500	0.100		0.28		99	44	μg/L
Antimony	SW6020B	0.50	1.0	-	-	190	21,000	690	μg/L
Arsenic	SW6020B	0.50	1.0	-	0.21	150	380,000	560	μg/L
Beryllium	SW6020B	0.10	0.20	-	150	11	5,900	2,900	μg/L
Cadmium	SW6020B	0.040	0.20	-	73	0.094	7,100	4,800	μg/L
Chromium	SW6020B	0.5	1.0		110,000	24	82	160,000	μg/L
Copper	SW6020B	0.10	1.0	_	2,900	1.4	50,000	22,000	μg/L

Table 5
Water Laboratory Detection Limits and RBC Screening Levels

Analyte	Method	Laboratory Method Detection Limit	Laboratory Quantitation Limit	RBC - Volatilization to Outdoor Air (Urban Residential)	RBC - Ingestion & Inhalation from Tapwater (Urban Residential)	RBC - Freshwater Chronic Risk	Wildlife RBC - Birds	Wildlife RBC - Mammals	Units
Lead	SW6020B	0.1	0.20	-	15	0.54	78	4,300	μg/L
Mercury	SW6020B	0.04	0.08	-	22	0.012	1,000,000	140	μg/L
Nickel	SW6020B	0.10	2.0	-	1,500	16	1,400	890	μg/L
Selenium	SW6020B	0.50	1.0			4.6	4,500	110,000	μg/L
Silver	SW6020B	0.10	0.20	-	370	0.1	490,000	31	μg/L
Thallium	SW6020B	0.10	0.20	-	-	6	1,400	31	μg/L
Zinc	SW6020B	2.0	4.0			36	490,000	560,000	μg/L
Diesel Range Organics	NWTPH-Dx	100	200		100	640			μg/L
Oil	NWTPH-Dx	200	400						μg/L
2,3,7,8-TCDD	1613B	1.78	5.0	52,000	0.42				pg/L
2,3,7,8-TCDD toxicity equivalents (Dioxin TEQ)	1613B	1.78	5.0	52,000	0.42			0.0044	pg/L
1,2,3,7,8-PeCDD	1613B	5.63	25						pg/L
1,2,3,4,7,8-HxCDD	1613B	4.18	25						pg/L
1,2,3,6,7,8-HxCDD	1613B	3.51	25						pg/L
1,2,3,7,8,9-HxCDD	1613B	4.46	25						pg/L
1,2,3,4,6,7,8-HpCDD	1613B	4.84	25						pg/L
OCDD	1613B	16.4	50						pg/L
2,3,7,8-TCDF	1613B	1.78	5						pg/L
1,2,3,7,8-PeCDF	1613B	5.01	25						pg/L
2,3,4,7,8-PeCDF	1613B	4.99	25						pg/L
1,2,3,4,7,8-HxCDF	1613B	6.87	25						pg/L
1,2,3,6,7,8-HxCDF	1613B	6.31	25						pg/L
2,3,4,6,7,8-HxCDF	1613B	5.8	25						pg/L
1,2,3,7,8,9-HxCDF	1613B	5.33	25						pg/L
1,2,3,4,6,7,8-HpCDF	1613B	5.96	25						pg/L
1,2,3,4,7,8,9-HpCDF	1613B	5.34	25						pg/L
OCDF	1613B	11.3	50						pg/L

Table 5
Water Laboratory Detection Limits and RBC Screening Levels

Analyte	Method	Laboratory Method Detection Limit	Laboratory Quantitation Limit	RBC - Volatilization to Outdoor Air (Urban Residential)	RBC - Ingestion & Inhalation from Tapwater (Urban Residential)	RBC - Freshwater Chronic Risk	Rinde	Wildlife RBC - Mammals	Units
Total TCDD	1613B	-	5						pg/L
Total PeCDD	1613B	-	25						pg/L
Total HxCDD	1613B	-	25						pg/L
Total HpCDD	1613B	-	25						pg/L
Total TCDF	1613B	-	5						pg/L
Total PeCDF	1613B	-	25						pg/L
Total HxCDF	1613B	-	25						pg/L
Total HpCDF	1613B	-	25						pg/L

Bold: Limit exceeds one or more RBC(s)

Abbreviations:

RBC = Risk Based Concentrations

 μ g/L = micrograms per liter

pg/L = picogram per liter

Table 6
Total Suspended Solids Sensitivity Criteria and Quality Control Limits

Analyte	Detection Limit	Reporting Limit	Duplicate Precision	Matrix Spike Recovery	Matrix Spike Precision	Blank Spike Recovery	Blank Spike Precision
Total Suspended Solids	5.00 mg/L	5.00 mg/L	≤ 10% RPD	NA	NA	85 to 115%	≤ 10% RPD

Abbreviations:

≤ = less than or equal to

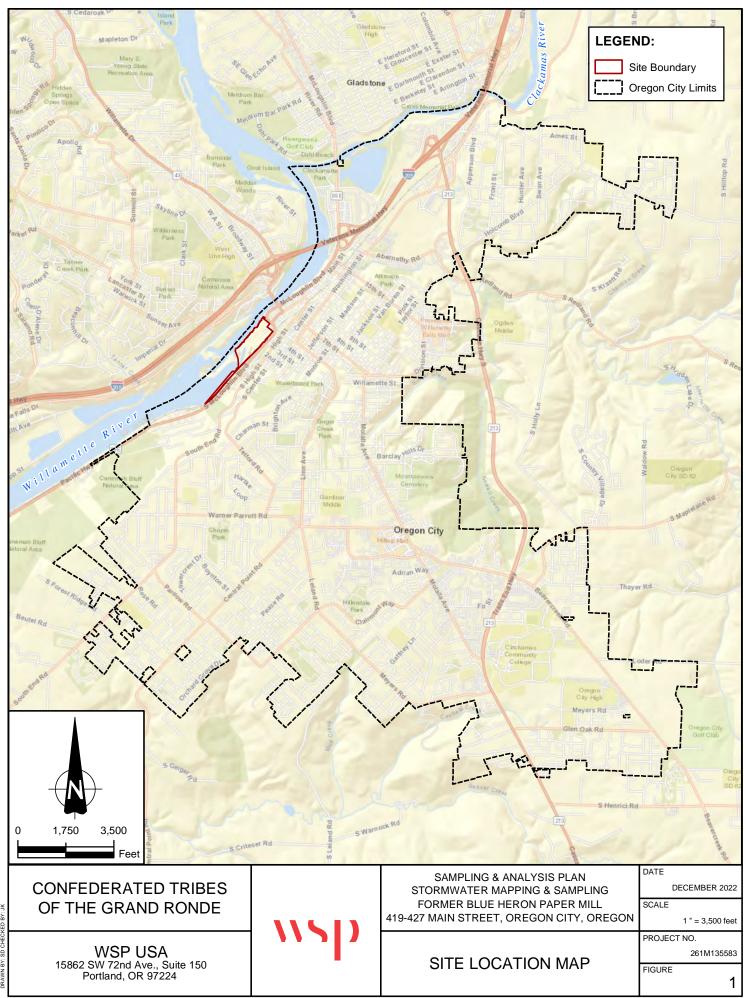
% = percent

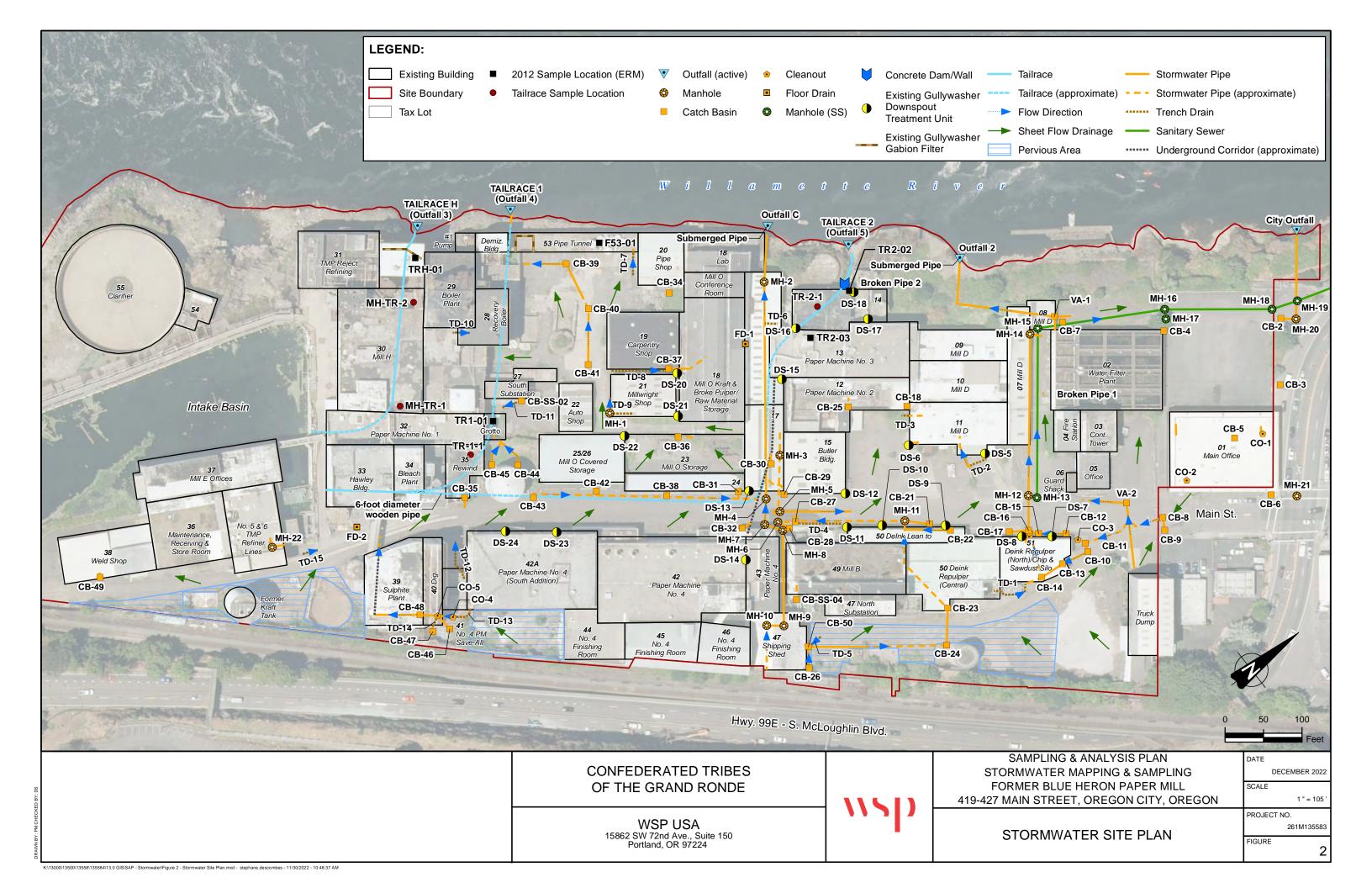
mg/L = milligrams per liter

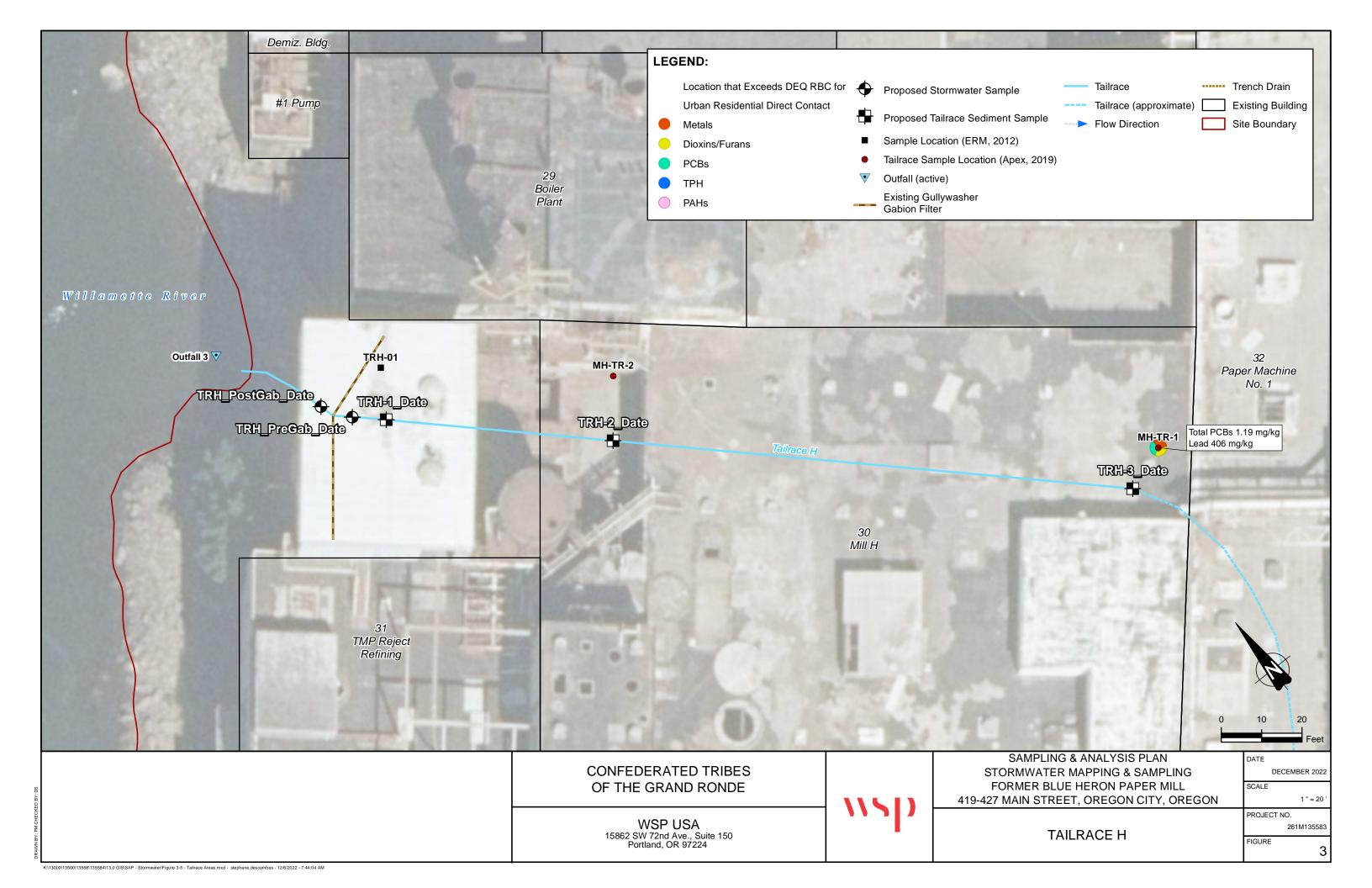
NA = not applicable

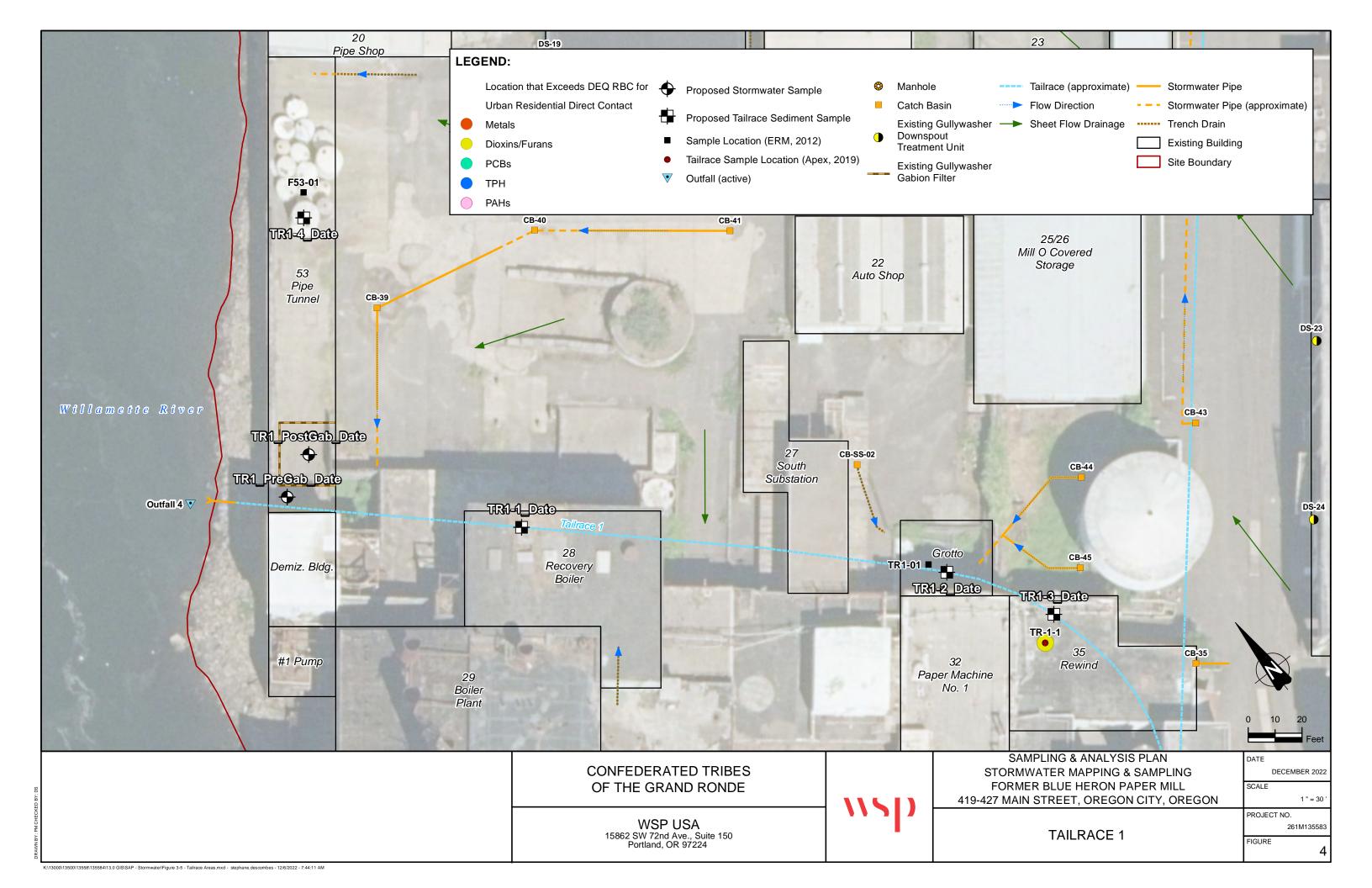
RPD = relative percent difference

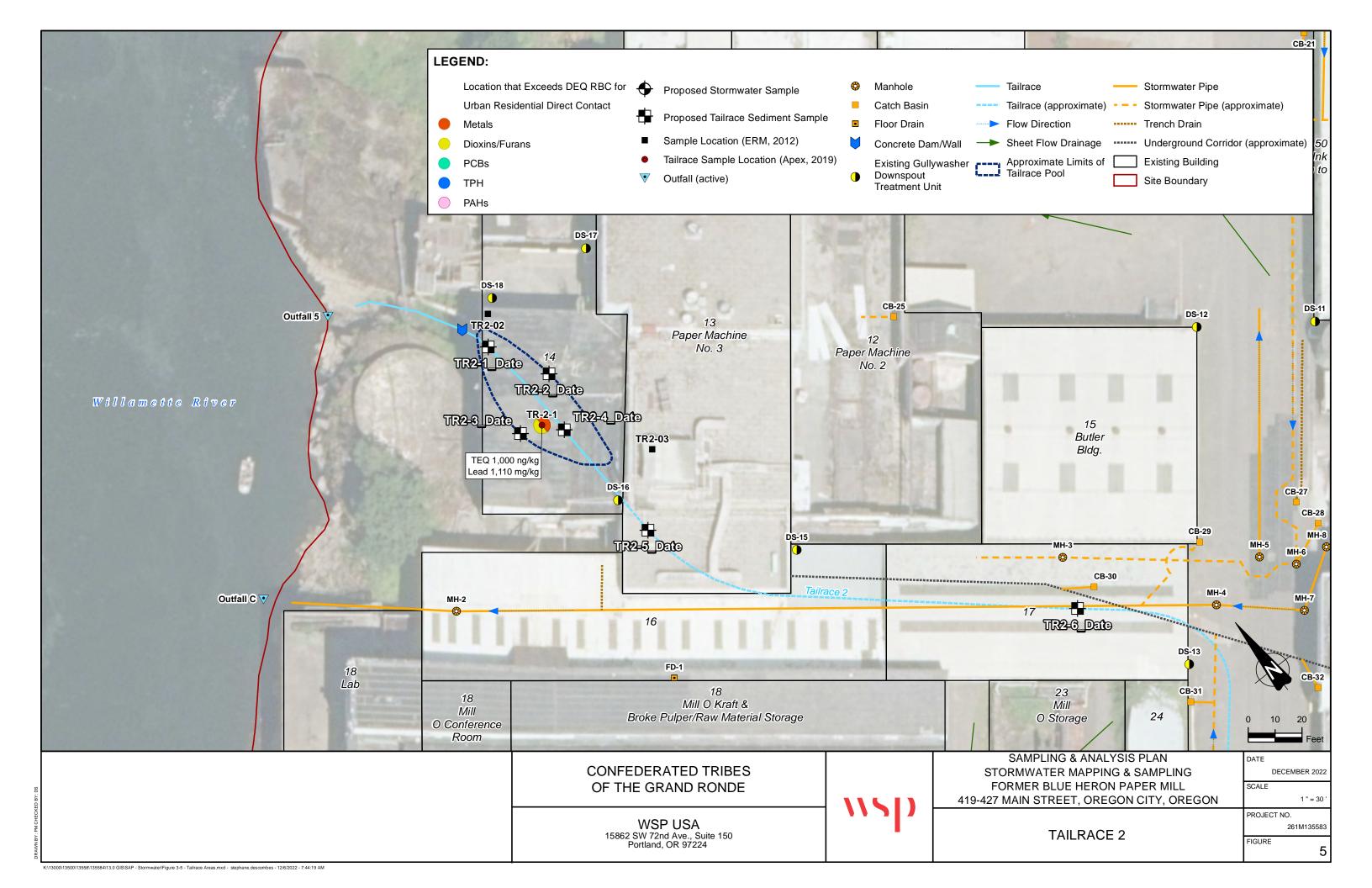
FIGURES











ATTACHMENT 1:

STORMWATER CONVEYANCE SYSTEM SUMMARY TABLE

BLUE HERON STORMWATER FEATURE SOURCE CONTROL INVESTIGATION

Last Updated: 12/23/2021

Lasi Opualeu.		General In	fo			Source Investigation Notes						
Feature ID	Feature Type	Size	Depth	Basin	Initial Sediment Depth, Sept 24-25, 2020	Condition	BMPs Implemented	Sampling	Scoping	Cleaning	Notes	
CB-1	Catch Basin	Not Measu	ıred	Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-2	Catch Basin	Not measu	ıred	Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-3	Catch Basin	Not measu	ıred	Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-4	Catch Basin	Not measu	ıred	Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-5	Catch Basin	Not measu		Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-6	Catch Basin	Not measu		Е	Not measured	Unknown	None	None	None	None	Off-Site	
CB-7	Catch Basin	28" x 12"	24"	Е	3"	Clear	Fabric Insert	Sediment	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-8	Catch Basin	30" diameter	27"	Е	3"	Outlet clogged	Fabric Insert	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-9	Catch Basin	15" x 15"	20"	Е	15"	Clear	Fabric Insert	Sediment	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-10	Catch Basin	30" diameter	40"	Е	6"	Clear	Fabric Insert	Sediment	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-11	Catch Basin	30" diameter	48"	Е	4"	Inlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-12	Catch Basin	17" diameter	11"	Ε	2"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-13	Catch Basin	30" diameter	65"	E	12"	Clear	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-14	Catch Basin	30" diameter	69"	Е	11"	Unable to open	?	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-15	Catch Basin	18" diameter	20"	Е	2"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-16	Catch Basin	30" diameter	88"	Е	12"	Clear	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-17	Catch Basin	17" diameter	26"	Е	7"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-18	Catch Basin	24" x 24"	?	D	Full	Full of sediment	None	None	Unconfirmed	None	Further investigation required	
CB-21	Catch Basin	27" x 11"	10"	D	9"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-22	Catch Basin	14" x 10"	5"	D	0.25"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-23	Catch Basin	32" x 32"	25"	D	14"	Clear	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-24	Catch Basin	54" x 36"	28"	D	2"	Inlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-25	Catch Basin	24" x 24"	31"	D	32.5"	Outlet clogged	None	None	Unconfirmed	None	Further investigation required	
CB-26	Catch Basin	24" x 24"	43"	D	13"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-27	Catch Basin	58" x 35"	96"	D	4"	Clear	Fabric Insert	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-28	Catch Basin	28" x 14"	32"	D	5"	Clear	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-29	Catch Basin	24" x 24"	30"	D	32"	Full of sediment	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-30	Catch Basin	18" x 18"	92"	D	1"	Clear	Fabric Insert	None	Confirmed	None	Connections confirmed	
CB-31	Catch Basin	24" x 24"	30"	D	24"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-32	Catch Basin	26" x 23"	9.5"	D	2"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-34	Catch Basin	15" diameter	36.5"	C	14"	Full of Water	Fabric Insert	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-35	Catch Basin	24" x 24"	30"	C	26"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-36	Catch Basin	24" x 24"	36"	D		Outlet clogged		None		Cleaned Jan/Feb 2021	Further investigation required	
CB-37	Catch Basin	24" x 24"	30"	D	15"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-38	Catch Basin	24" x 24"	32"	D	20"	Outlet clogged		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-39	Catch Basin	28" x 13"	18"	С	0"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-40	Catch Basin	24" x 24"	17"	С	17"	Full of sediment	None	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-41	Catch Basin	24" x 24"	17"	С	19"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-42	Catch Basin	24" x 24"	30"	D	17"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-42	Catch Basin	24" x 24"	32"	D	15"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-44	Catch Basin	24 724	7	С	7	Outlet clogged	None	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-44 CB-45	Catch Basin	11.5" diameter		С	: 1"	Outlet clogged	None	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-45 CB-46	Catch Basin	18" x 18"	18"	С	3"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-40 CB-47	Catch Basin	27" x 18"	18.5"	С	2.5"	Clear	Fabric Insert	None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-47 CB-48		12" x 12"	13"	С	3.5"							
CB-48 CB-49	Catch Basin		30"	В	24.5"	Clear Outlet cleaged	Fabric Insert	Sediment	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
	Catch Basin	24" x 24"				Outlet clogged	Fabric Insert	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-50	Catch Basin	35" x 25"	33"	D	16.5"	Outlet clogged	Fabric Insert	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	
CB-SS-02	Catch Basin	36" x 24"	14"	С		Clear		Sediment	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed	
CB-SS-04	Catch Basin	24" x 21"	81"	D	4"	Outlet clogged	Fabric Insert	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required	

General Info						Source Investigation Notes							
					Initial Sediment								
Feature ID	Feature Type	Size	Depth	Basin		Condition	BMPs Implemented	Sampling	Scoping	Cleaning	Notes		
MH-1	Manhole	24" diameter	38"	С	6"	Outlet clogged	None	Sediment	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
MH-2	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-3	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-4	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-5	Manhole	24" diameter	?	D	Not measured	Outlet clogged		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
MH-6	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
MH-7	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-8	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-9	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-10	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-11	Manhole	24" diameter	?	D	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-12	Manhole	24" diameter	?	Е	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-13	Manhole	24" diameter	?	Е	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-14	Manhole	24" diameter	?	Е	Not measured	Too deep/large for rodder	None	None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
MH-15	Manhole	24" diameter	?	Е	Not measured	Too deep/large for rodder	None	None	Unconfirmed	None	Further investigation required		
MH-16	Manhole	24" diameter	?	Е	Not measured	?	?	None	None	None	Further investigation required		
MH-17	Manhole	24" diameter	?	Е	Not measured	?	?	None	None	None	Further investigation required		
MH-18	Manhole	24" diameter	?	Е	Not measured	?	?	None	None	None	Further investigation required		
MH-19	Manhole	24" diameter	?	Е	Not measured	?	?	None	None	None	Further investigation required		
MH-20	Manhole	24" diameter	?	Е	Not measured	?	?	None	None	None	Further investigation required		
MH-21	Manhole	24" diameter	?	Е	Not measured	?		None	None	None	Further investigation required		
MH-22	Manhole	24" diameter	?	В	Not measured	Too deep/large for rodder		None	Unconfirmed	None	Further investigation required		
VA-1	Vault	12" x 12"	?	Е	Not measured	Too deep/large for rodder		None	Unconfirmed	None	Further investigation required		
VA-2	Vault	24" x 24"	?	Е	Not measured	Inlet/outlet clogged	None	None	Unconfirmed	None	Further investigation required		
CO-1	Cleanout	?	?	Е	Not measured	?			None	None	Further investigation required		
CO-2	Cleanout	?	?	Е	Not measured	?		None	None	None	Further investigation required		
CO-3	Cleanout	?	?	E	Not measured	?		None	None	None	Further investigation required		
CO-4	Cleanout	?	?	C	Not measured	Clear		None	Confirmed	None	Connections confirmed		
CO-5	Cleanout	?	?	С	Not measured	Clear		None	Confirmed	None	Connections confirmed		
FD-1	Floor Drain	8" diameter	N/A	D	Not measured	Too small for rodder		None	Unconfirmed	None	Further investigation required		
FD-2	Floor Drain	8" diameter	N/A	C	Not measured	Too small for rodder		None	Unconfirmed	None	Connections confirmed		
TD-1	Trench Drain	?	?	Ē	Not measured	Clear		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-2	Trench Drain	?	?	D	Not measured	Clear		None	Confirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-3	Trench Drain	?	7	D	Not measured	Full of sediment		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-4	Trench Drain	?	?	D	Not measured	Clear		None	Confirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-5	Trench Drain	?	7	D	Not measured	Full of sediment		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-6	Trench Drain	?	?	D	Not measured	Grate stuck		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-7	Trench Drain	?	7	C		Clear		None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed		
TD-8	Trench Drain	?	?	D		Clear		None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed		
TD-0	Trench Drain	?	?	D	Not measured	Full of sediment		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-10	Trench Drain	?	2	С		Grate stuck		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
TD-10	Trench Drain	?	?	C		Clear		None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed		
TD-11 TD-12	Trench Drain	?	?	C	Not measured	7			None	Cleaned Jan/Feb 2021	Further investigation required		
TD-12 TD-13	Trench Drain	?	?	C		<u>r</u> Clear		None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed		
TD-13	Trench Drain	?	?	С		Clear		None	Confirmed	Cleaned Jan/Feb 2021	Connections confirmed		
TD-14 TD-15	Trench Drain	?	?	В	Not measured	2		None	Unconfirmed	Cleaned Jan/Feb 2021	Further investigation required		
DS-13	Downspout Unit	275 gal tote	N/A	E	N/A	Overgrown, needs to be sampled			N/A	None	Overgrown		
DS-1 DS-2	Downspout Unit	275 gal tote	N/A	E	N/A	Overgrown, needs to be sampled	•		N/A	None	Overgrown		
DS-2 DS-3	Downspout Unit	275 gal tote	N/A	E	N/A N/A	Broken inlet pipe, overgrown, needs to be sampled			N/A	None	Overgrown		
DS-3 DS-4	Downspout Unit		N/A N/A						N/A N/A				
		275 gal tote		E	N/A	Overgrown, needs to be sampled	· ·			None	Overgrown		
DS-5	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown		

		General In	fo			Source Investigation Notes						
Feature ID	Feature Type	Size	Depth	Basin	Initial Sediment Depth, Sept 24-25, 2020	Condition	BMPs Implemented	Sampling	Scoping	Cleaning	Notes	
DS-6	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-7	Downspout Unit	275 gal tote	N/A	Е	N/A	Overgrown, needs to be sampled	Gravity Biofilter		N/A	None	Overgrown	
DS-8	Downspout Unit	275 gal tote	N/A	Е	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-9	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter		N/A	None	Overgrown	
DS-10	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-11	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-12	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-13	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-14	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-15	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-16	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-17	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-18	Downspout Unit	275 gal tote	N/A	D	N/A	Broken inlet pipe, overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-19	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-20	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-21	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-22	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-23	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-24	Downspout Unit	275 gal tote	N/A	D	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-25	Downspout Unit	275 gal tote	N/A	В	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-26	Downspout Unit	275 gal tote	N/A	В	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-27	Downspout Unit	275 gal tote	N/A	В	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-28	Downspout Unit	275 gal tote	N/A	В	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
DS-29	Downspout Unit	275 gal tote	N/A	Α	N/A	Overgrown, needs to be sampled	Gravity Biofilter	None	N/A	None	Overgrown	
City Outfall	Outfall	?	N/A	Е	N/A	?		None	None	None		
Outfall 2	Outfall	?	N/A	Е	N/A	?	?	None	None	None		
Tailrace 2	Outfall	Tailrace	N/A	D	N/A	?	?	Stormwater	None	None		
Outfall C	Outfall	?	N/A	D	N/A	?	?	Stormwater	None	None		
Tailrace 1	Outfall	Tailrace	N/A	С	N/A	?	?	Stormwater	None	None		
Tailrace H	OUtfall	Tailrace	N/A	В	N/A	?	?	Stormwater	None	None		

ATTACHMENT 2:

ENTHALPY QUALITY ASSURANCE MANUAL AND CERTIFICATION



QUALITY MANUAL

REVISION 32 EFFECTIVE DATE: 10/04/22

Mula & Sueiller 10/3/2022

Karla Buechler Date

Laboratory Director

Oliver Cawdell Technical Director

Tunk Maria 10/03/22

Vista Analytical Laboratory 1104 Windfield Way, El Dorado Hills, CA 95762 (916) 673-1520

Teresa Morrison

Quality Assurance Director



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FOREWORD

The Quality Manual (QM) describes the Quality System implemented at Vista Analytical Laboratory in El Dorado Hills, California. The policies and procedures outlined in this QM are designed and developed to comply with the established NELAP Standards. It is the intent of Vista to meet or exceed the Quality Assurance/Quality Control (QA/QC) requirements set by ISO 17025, NELAP, U.S. DoD QSM, and the USEPA or other appropriate governmental or private entities to assure that all analytical data generated are scientifically valid, defensible, comparable, and of known acceptable precision and accuracy.

The QM shall be amended to reflect any changes to Vista's capability, location or Quality System. The Quality Assurance Director is responsible for the maintenance and annual review of the QM.



1. INTRODUCTION

Vista Analytical Laboratory in El Dorado Hills, CA was established in 1990 and was acquired by Enthalpy Analytical LLC ("Enthalpy") in 2021; Enthalpy is an independent subsidiary of Montrose Environmental Group, which is headquartered in Little Rock, AR, and which is a publicly-traded Delaware corporation. Vista provides state-of-the-art mass spectrometry services to chemical manufacturers, environmental engineering firms, and the pulp and paper industry, as well other industrial and governmental clients. Vista operates with the intent of providing data of the highest quality with responsive service in a short turnaround time.

Vista has an expanding national and international client base attributable to its reliable reputation in performing difficult trace level analyses. Vista's expertise lies in the analysis of semi-volatile organic compounds such as Dioxin and Furans; Poly- and Perfluorinated compounds (PFAS); Polychlorinated Biphenyls (PCBs); Polynuclear Aromatic Hydrocarbons (PAHs); and Pesticides. See Appendix for a complete list of analytical methods performed by Vista Analytical.

1.1. Policy

It is the policy and commitment of Vista to meet specific quality requirements to satisfy the needs of the client, as well as meet regulatory requirements for NELAP (TNI Standards), ISO/IEC 17025, the Department of Defense, individual states or any other overseeing agency. A Quality System has been established to achieve this policy. It is Vista's intent to provide full compliance with this Quality System throughout all phases of a project and to provide the client with quality, defensible data.

- 1.1.1. It is Management's responsibility to instill a commitment to continuously improve the quality standards throughout the company, and to ensure each employee has a clear understanding of the Quality System..
- 1.1.2. Management is responsible to ensure personnel are free from any commercial, financial, and other undue pressures, which might affect the quality of work.
- 1.1.3. All Vista employees shall maintain integrity at all times.
- 1.1.4. Quality is the responsibility of all Vista employees.
- 1.1.5. All Vista employees must comply with all QA/QC procedures as it pertains to their function.
- 1.1.6. All employees shall be accountable for the quality of their individual assignments and functional responsibilities.
- 1.1.7. Employees shall be responsible for reporting any non-conformance to Management or the QA Director.



- 1.1.8. The laboratory shall have sufficient personnel with necessary education training, technical knowledge and experience for the assigned positions
- 1.1.9. Vista employees do not contribute towards opinions and/or interpretations of client data.
- 1.2. Should significant changes to the laboratory's ownership, senior management (Lab Director, Technical Director, QA Director), facility or location occur, the laboratory's accrediting bodies will be notified within the required time-frames for each agency.

2. ORGANIZATION AND FACILITIES

The senior management staff of Vista consists of a Laboratory Director, Technical Director, and QA Director.

The relationships between technical operations, quality management, and support services of Vista Analytical Laboratory are shown in the organizational chart presented in the Appendix.

Top management shall be responsible for recording all analytical and operational activities of the laboratory and ensuring that all employees possess the appropriate qualifications.

2.1. Management Responsibilities

2.1.1. Laboratory Director

The Laboratory Director manages the financial and on-time performance of the laboratory for the laboratory, and is responsible for final review and interpretation of analytical data and final reports. Should the Laboratory Director be absent for more than 15 consecutive calendar days, the Quality Assurance Director or the Technical Director shall be designated acting Laboratory Director.

The Laboratory Director is also responsible for Project Management and national sales on the occasion those supporting bodies are unavailable. The Laboratory Director has the authority and is responsible for:

- Ensuring that the laboratory is current with all regulations that affect operations and the information be communicated to all laboratory personnel by the Technical Director and/or QA Director;
- Maintaining sufficient personnel, equipment and supplies to achieve production goals;
- Ensuring that personnel are free from commercial, financial, and other undue pressures which might affect the quality of their work;



- Being responsible for certifying the qualifications and training of the analysts;
- Reviewing all laboratory SOPs and training materials prior to their implementation and ensures that all approved SOPs are implemented and adhered to; and
- Being responsible for the review and negotiation of client contracts.

2.1.2. Technical Director

The Technical Director is responsible for overseeing day-to-day operations, implementing the scientific procedures and best practices needed for the optimal performance of the laboratory. The Technical Director reports directly to the Laboratory Director and is also the Deputy Laboratory Director. The Technical Director must meet the requirements of TNI V1M2 Section 5.2.6.1 (qualifications). Additionally, for California laboratories, the Technical Director must have at least 3 years' experience in related environmental testing prior to being designated as the Technical Director; a Master's degree in a related science may be substituted for 1 year of required experience and a doctorate in a related science may be substituted for 2 years' experience.

Should the Technical Director be absent for more than 15 consecutive calendar days, the Laboratory Director shall be designated acting Technical Director. In the absence of the Technical Director for more than 65 calendar days, all laboratory Accrediting Bodies shall be notified in writing by the QA Director or Laboratory Director. [*Note:* California ELAP requires notification of absences greater than 35 consecutive days – CCR 64812.00(g)]

The Technical Director has the authority and is responsible for:

- Being responsible for the quality of the data reported by the laboratory
- Identifying, resolving, and documenting analytical problems encountered in the laboratory;
- Being involved in the hiring and training of chemists and analysts;
- Providing technical expertise in evaluating potential work prior to bid submittal;
- Supporting QA and Operations with revisions of laboratory SOPs;
- Leading laboratory method development and other R&D work;
 and



 Providing support to QA for internal and external audit responses.

2.2. Quality Assurance Director

The QA Director is responsible for managing the QA activities of the entire laboratory. The QA Director reports directly to the Laboratory Director. The QA Director serves as the focal point for QA/QC and is responsible for the oversight and/or review of quality control data. When QA oversight is necessary, the QA Director functions must be independent from the laboratory operations. Should the QA Director be absent for more than 15 consecutive calendar days, the Technical Director shall be designated acting QA Director.

The QA Director has the authority and is responsible for:

- Working with the Laboratory Director and corporate QA staff in the development, implementation and maintenance of the QA program, to assure that all data generated is scientifically sound, legally defensible and of known quality;
- Ensuring that all personnel understand their contributions to the quality system;
- Ensuring communication takes place at all levels within the laboratory regarding the effectiveness of the quality system;
- Evaluating the effectiveness of training;
- Reviewing and updating the Quality Manual as needed to remain current, at least annually;
- Using available tools, such as internal and external audits, control charts, proficiency testing results, data analysis, corrective and preventive actions, customer feedback, and management reviews in efforts to monitor trends and continually improve the quality system; and
- Notifying management of deficiencies in the quality system and monitoring corrective actions.

The QA Director works with management to ensure that the Vista QM and associated SOPs are followed as written and maintains a position that is free from outside influence in order to evaluate the data and perform all other QA Director responsibilities objectively.

2.3. LIMS Administrator

A key support staff position is the Laboratory Information Management System (LIMS) Administrator. The LIMS Administrator is responsible for assisting in developing and maintaining all LIMS-related programming and assisting with other IT development and maintenance needs. The LIMS Administrator reports directly to the Laboratory Director. Should the LIMS Administrator be absent, internal laboratory support can be provided by the Laboratory Director or the



Promium Help Desk can be contacted for assistance. The LIMS Administrator has the authority and is responsible for:

- Implementing and maintaining the LIMS system;
- Providing LIMS system support, technical assistance and training to all laboratory personnel;
- Setting-up and managing LIMS system user accounts and security privileges;
- Managing and documenting change control for the LIMS system;
- Investigating and resolving LIMS system errors, as well as correcting user errors;
- Creating procedures, documentation and training materials;
- Communicating changes, enhancements and modifications to the LIMS system to appropriate laboratory personnel;
- Developing data backup and recovery processes related to the LIMS system; and
- Communicating with IT vendors to resolve issues.

2.4. Approved signatories

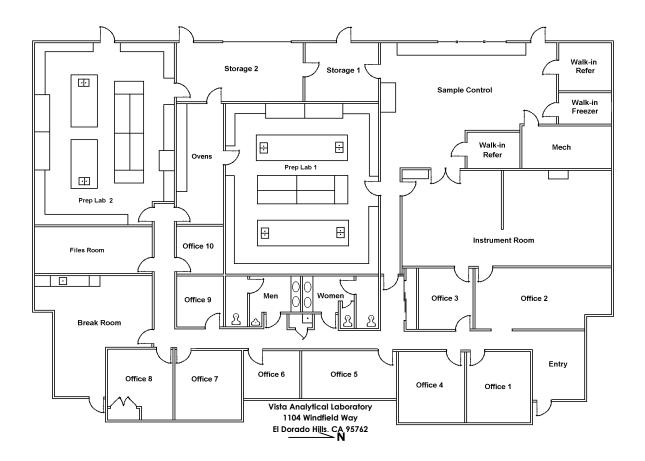
2.4.1. Approved signatories include the Laboratory Director, the Technical Director, the QA Director, and other qualified personnel.

2.5. Facilities

- 2.5.1. Vista Analytical Laboratory is a fixed location laboratory located in El Dorado Hills, CA. Sample receiving, extractions and analysis are located in the main building at 1104 Windfield Way; this building consists of 9,000 square feet of laboratory and office spaces. Some administrative tasks are performed remotely, or in the adjacent building at 1102 Windfield Way; these offices consist of 6,000 square feet of office and cubicle spaces.
- 2.5.2. The laboratory facilities are equipped with appropriate energy sources, lighting, ventilation and other utilities required to support environmental conditions that facilitate performance of the testing activities. The facilities are maintained to ensure that results are not invalidated or do not adversely affect the required accuracy of measurement.
- 2.5.3. The lab maintains separation between neighboring areas in which there are incompatible activities and measures are taken to prevent cross-contamination. Access to and use of areas affecting the quality of the tests and/or calibrations is controlled. Measures are taken to ensure good housekeeping in the laboratory.

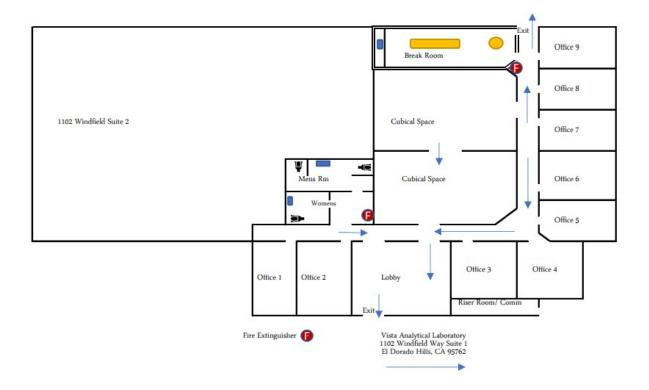


2.5.4. Layout - 1104 Windfield Way, El Dorado Hills, CA





2.5.5. Layout – 1102 Windfield Way, El Dorado Hills, CA (Administrative offices)





3. QUALITY SYSTEM

The Vista Quality System is designed to comply with the applicable requirements of the TNI NELAP Standards and the DOD Quality Systems Manual for Environmental Laboratories (QSM), v5.4 or latest version, and to satisfy the needs of the client or overseeing agency. All policies, systems, and procedures are documented to assure quality of the data. Personnel shall familiarize themselves with quality documentation and implement the policies and procedures in their work.

Senior Management will review the effectiveness and suitability of the Quality System at least annually. The reviews shall address issues that impact quality. The results of the reviews shall be used to design and implement improvements to the system. The reviews include reports from management and supervisory personnel, recent internal audits, external audits, proficiency testing, client feedback, and corrective action reports. The QA Director will maintain records of the review meeting, findings, and corrective actions.

3.1. Quality Documents

- 3.1.1. The Vista Quality System is outlined and documented in the Quality Manual and supporting quality documents. The documented quality system assures that services provided to clients comply with specified quality criteria.
- 3.1.2. The Quality Manual contains Quality Policies covering the applicable requirements of the ISO-17025, NELAP TNI Standards and DoD Quality Systems Manual for Environmental Laboratories.
- 3.1.3. Program specific quality criteria are specified in client Quality Assurance Program Plans (QAPPs), Statement of Works (SOWs) or other project specific documentation.
- 3.1.4. Procedural activities that affect quality are described in more detail in the Standard Operating Procedures (SOPs).

3.2. Use of Quality Documents

- 3.2.1. Management will review and approve all quality documents prior to issuance. All quality documentation shall be communicated to, understood by, available to, and implemented by the appropriate personnel.
- 3.2.2. A QAPP or other project-specific requirements submitted by the client will be reviewed to determine whether they are within the scope of Vista's Analytical Procedures. Any discrepancies will be discussed with the client and documented prior to commencement of the project.



- 3.2.3. The Quality Manual will be understood and implemented throughout the laboratory. SOPs will be understood and implemented throughout applicable operations.
- 3.2.4. Quality documents shall be periodically reviewed to ensure continuing suitability and compliance with current requirements. The Quality System will be reviewed on an ongoing basis and revised, as needed, to ensure that it effectively encompasses the company's quality criteria. The QA Director will maintain the Quality Manual. Revisions to the Quality Manual may be made by replacing individual policies or the entire manual.
- 3.2.5. Any departures from policies or planned activities that affect quality will be approved by management prior to occurrence.
- 3.2.6. Standard Operating Procedures will be maintained as designated in the specific SOP with revisions being made on an as needed basis.

3.3. Document Control

Standard Operating Procedures (SOPs) or any documents that specify quality requirements or otherwise affect quality are Controlled Documents.

- 3.3.1. Procedures have been established to control and maintain the issue, distribution, and revisions of all controlled documentation. See SP-DC for Document Control Procedures.
- 3.3.2. Complete and current copies of the controlled documents shall be made available upon issuance, and obsolete copies will be removed from all points of issue or use. The controlled document hard copies will be stamped, in red, as an "Official QA Copy".
- 3.3.3. All controlled documents are available in electronic form. Hard copy binders of SOPs are available at particular points throughout the lab.
- 3.3.4. All original, current controlled documents are stored by QA Director.
- 3.3.5. All obsolete or invalid documents or previous revisions are archived electronically, and the paper copies are destroyed.
- 3.3.6. A master list will be used to ensure that the correct revision of each SOP is available for use, and that obsolete revisions are removed from service. Each controlled document has an associated revision number and effective date to enable tracking of current revisions.
- 3.3.7. Documents are periodically reviewed and, where necessary, revised to ensure continuing suitability and compliance with applicable requirements. The Quality Manual will be revised annually or as needed to address changes in equipment, instrumentation, facility structure or laboratory organization.



- 3.3.8. Document changes are reviewed and approved by the appropriate personnel.
- 3.3.9. The QA Director will maintain records of revisions for all Controlled Documents. See Appendix for the complete list of the most current Standard Operating Procedures.
- 3.4. Quality Assurance Objectives and Quality Control Procedures

Quality assurance objectives employed at Vista provide routine mechanisms of ongoing control and evaluation of data quality. The quality control (QC) procedures evaluate method performance in terms of accuracy and criteria specified by the method or protocol.

3.4.1. Accuracy and precision

Accuracy and precision objectives for laboratory analyses can be found in the technical SOPs associated with each method. Vista's internal quality control procedures include, at a minimum for each preparation batch, the analysis of a Method Blank and Blank Spike, also called On-going Precision and Recovery samples (OPR) or Laboratory Control Spikes (LCS). As required by the method or requested by the client, the following may also be included in a preparation batch: Blank Spike Duplicate, also knows as Laboratory Control Spike Duplicate (LCSD); Matrix Spike(s) (MS); Matrix Spike Duplicate(s) (MSD); Laboratory Duplicate Sample(s) (DS) and/or Standard Reference Material(s) (SRM).

3.4.2. Definitions

- 3.4.2.1 Accuracy: Accuracy is the nearness of a measurement to the true or theoretical value. Accuracy is assessed by determining recoveries from OPR (LCS), LCSD, MS, MSD or by comparing values obtained from SRMs.
- 3.4.2.2 Analytical Batch: Samples and QC analyzed under the same method and same instrument using the same Initial Calibration in a continuous sequential time period.
- 3.4.2.3 Clean-up Recovery Standard: A clean-up recovery standard is an isotopically labeled analyte that is added to the sample extract prior to any clean-up procedures. This standard is used to quantitatively assess losses occurring throughout the clean-up process.
- 3.4.2.4 Control/Warning Limits: Warning and control limits are limits used in laboratory control charts tracking average recovery and relative percent difference. For a Means Chart, typical warning and control levels are ± 2 and ± 3 standard deviations (s), respectively, from the central line (i.e., average mean recovery), respectively. Similarly, the warning and control



- limits for an RPD Chart are usually set at + 2s and + 3s above the mean RPD, respectively.
- 3.4.2.5 Detection Limit (DL): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%. A DL may be used as the lowest concentration for reliably reporting a detection of a specific analyte in a specific matrix with a specific method with 99% confidence.
- 3.4.2.6 Duplicate Sample (DS): Duplicate samples are two separate aliquots taken from the same source sample. Duplicate samples are analyzed independently to assess laboratory precision.
- 3.4.2.7 Estimated Detection Limit (EDL): The point at which a peak would be discernable above the baseline noise. The EDL is calculated when there is not a peak present at the expected Retention Time for each analyte for each analytical run.
- 3.4.2.8 Estimated Maximum Possible Concentration (EMPC): The EMPC is calculated when the response has a S/N in excess of 2.5, but the ion abundance criteria are not met.
- 3.4.2.9 Internal Standards (IS): An internal standard is an isotopically labeled analyte which is added to the sample prior to extraction and used in the quantitation and identification of native analytes.
- 3.4.2.10 Laboratory Control Sample (LCS): A laboratory blank spiked with known quantities of target analytes, which is then prepared and analyzed exactly like a sample. The results are compared to the amount spiked to generate the percent recovered. This check shows that analytes were not lost or amplified during the extraction process. It is also sometimes referred to as Ongoing Recovery and Precision (OPR).
- 3.4.2.11 Limit of Detection (LOD): The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate is 1%. An LOD may be used as the lowest concentration for reliably reporting a non-detect of a specific analyte in a specific matrix with a specific method at 99% confidence. An LOD is analysis, matrix and instrument specific.
- 3.4.2.12 Limit of Quantitation (LOQ): The LOQ shall be set at or above the concentration of the lowest calibration standard and must



- be greater than the MDL. For DoD projects, the LOQ must be greater than the LOD.
- 3.4.2.13 Method Blank (MB): A method blank may be composed of sand, XAD, corn oil, or deionized water preparation that is free of native analyte or interferents. It is prepared and analyzed using the same procedures followed for the associated samples. The method blank is used to determine the level of background laboratory contamination.
- 3.4.2.14 Method Detection Limit (MDL): The minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. MDLs follow 40 CFR Part 136, Appendix B.
- 3.4.2.15 Method Quantitation Limit (MQL): The method quantitation limit is defined as the quantity of native analyte that corresponds to the lowest concentration of the calibration curve or higher. The Method Quantitation Limit is also known as the Reporting Limit.
- 3.4.2.16 Matrix Spike (MS/MSD): A matrix spike is prepared by adding a known quantity of native standards to a sample prior to extraction. By subtracting out the concentrations found in the sample, the recovery of the spiked analytes can be found. Matrix spikes can be used to determine the effect of the matrix on a method's recovery efficiency.
- 3.4.2.17 Native Standard: A native standard is composed of target analytes. Native standards are used in conjunction with internal standards to determine response factors and quantitatively assess accuracy.
- 3.4.2.18 Ongoing Precision and Recovery (OPR): A laboratory blank spiked with known quantities of analytes. The OPR is analyzed exactly like a sample. The results are compared to the amount spiked to generate the percent recovered. This check shows that analytes were not lost or amplified during the extraction process. It is also sometimes referred to as a Laboratory Control Spike (LCS).
- 3.4.2.19 Precision: Precision is the agreement between a set of replicate measurements, and is often applied to Laboratory Duplicates and Matrix Spike Duplicates. Relative Percent Difference (RPD) is used as the principal measure of precision and is based on the analysis of duplicate quality control samples.



- 3.4.2.20 Preparation Batch: A preparation batch is a maximum set of 20 samples of the same matrix that are extracted together using the same method, reagents, and standards. Each batch is assigned a unique batch number, which will be used to associate sample results with quality control data. All samples and QC associated with a particular batch must be extracted together on the same day. QC results associated with individual preparation batches, such as OPRs (LCSs), Method Blanks, MS/MSDs or Laboratory Duplicates, are evaluated to assess data quality.
- 3.4.2.21 Pre-Spike Standards: A pre-spike standard is an isotopically labeled analyte that is spiked into an MM5 resin cartridge or PUF prior to sampling. The recoveries of pre-spike standards provide a measure of the air sampling efficiency for native analytes.
- 3.4.2.22 Quality Control Sample: Quality control samples are analyzed to access the various aspects of the analytical process in order to monitor quality within the laboratory. The most frequently used QC samples are method blanks and OPRs (LCSs).
- 3.4.2.23 Recovery Standard: A recovery standard is an isotopically labeled analyte which is added to the sample extract after clean-up and prior to injection. This standard is used to quantitatively assess the absolute recoveries of the internal and clean-up recovery standards.
- 3.4.2.24 Resin QC: A resin QC is an XAD-2 preparation that is analyzed to assess possible background contamination originating from the resin.
- 3.4.2.25 Reporting Limit: The Reporting Limit is defined as the quantity of native analyte that corresponds to the lowest concentration of the calibration curve or higher. The Reporting Limit is also known as the Method Quantitation Limit.
- 3.4.2.26 Signal-to-Noise Ratio: Dimensionless measure of the relative strength of an analytic signal to the average strength of background instrument noise

3.4.3. Calculations

Routine batch QC calculations are shown below; additional calculations related to calibration and other QA/QC requirements can be found in the analytical SOPs.



3.4.3.1 Percent Recovery (%R): Percent recovery is a measure of accuracy and is calculated according to the following expression:

$$\%R = \frac{(Amount Found)}{(Amount Spiked)} X 100$$

- 3.4.3.2 Relative Percent Difference (RPD): RPD is a measure of the precision (reproducibility) between two analytical results:
 - 3.4.3.2.1 Percent Recovery (%R) from duplicate LCS or matrix spike analyses are used to calculate RPD using the following expression:

$$RPD = \frac{|\% R_1 - \% R_2|}{\left(\frac{(\% R_1 + \% R_2)}{2}\right)} \times 100$$

3.4.3.2.2 Similarly, the RPD for duplicate sample analyses, is calculated using the sample concentration (C), as follows:

$$RPDos = \frac{|C_1 - C_2|}{(C_1 + C_2)} \times 100$$

3.4.3.3 Relative Standard Deviation (RSD): Also known as the coefficient of variation.

$$RSD = \frac{SD}{Mean} \times 100$$

- 3.4.4 Quality Control Procedures
 - 3.4.4.1 Method Blanks

A method blank is created for each preparation batch (20 samples or fewer) per method and matrix type.

For any method involving the determination of native 2,3,7,8-substituted isomers, the levels measured in the method blank must be less than the MQL, or ten times lower than the concentration found in samples within the analytical batch, unless otherwise mandated by project or client requirements.



All samples within a preparation batch are re-extracted and analyzed if the method blank associated with that batch does not meet contamination limits (1/2 RL for DoD). If there is not adequate sample for re-extraction, the data is qualified appropriately.

3.4.4.2 Ongoing Precision and Recovery/Laboratory Control Samples

A single OPR or a pair of LCS is prepared and analyzed with every batch of clients' samples.

If the OPR/LCS recoveries are not within the acceptable control range and the analytes are not detected in the samples, then the Analyst, Project Manager and/or QA Director will use professional judgment to assess the effect on the sample data. A decision will be made to re-extract the affected batch or qualify the data that is reported.

3.4.4.3 Matrix Spike and Duplicate Sample Analyses

An MS, MS/MSD, or duplicates are analyzed upon client request, method requirements, or at the discretion of the Project Manager.

If the RPD from duplicate samples or MS/MSD exceeds associated acceptance criteria, corrective action will be taken as directed in the method, unless there is demonstrated matrix effect.

3.4.4.4 Quality Control Charts

Quality control charts are generated as needed by the QA Director and distributed to the Laboratory Director for review, as necessary. A set of current QC control charts is maintained in QA Director. Original copies of the QC charts and any associated tabular data are stored on the QA drive. QC control charts are available upon written request of clients or regulatory agencies or may be reviewed during facility audits.

3.4.4.5 Method Modifications

The laboratory shall validate non-standard methods, laboratory-designed/developed methods, standard methods used outside their intended scope, and amplifications and modifications of standard methods to confirm that the methods are fit for the intended use. The validation shall be as extensive as is necessary to meet the needs of the given application or field of application. The laboratory shall record the results obtained, the procedure used for the validation, and



a statement as to whether the method is fit for the intended use.

If method modifications are used, they must be listed in the method modification section of the associated SOP.

4. PURCHASING

4.1. Quality Materials and Services

Materials and services that affect the quality of the company's services will be designated as quality material and services. Purchases shall be made only from approved suppliers (based on historical experience or quality certifications).

- 4.2. Control of Quality Materials and Services
 - 4.2.1. Quality Materials and Services and, where appropriate, potential suppliers' Quality Systems, shall be evaluated to ensure that specified quality requirements are met. Any purchased equipment and consumable materials, whenever possible, shall be inspected, calibrated, or otherwise verified as complying with any standard specifications relevant to the calibrations or tests concerned prior to use. Records of actions taken to check compliance shall be maintained.
 - 4.2.2. Vista Analytical Laboratory shall ensure that only suitable externally provided products and services that affect the laboratory activities are used.
 - 4.2.3. The laboratory instrument software and firmware documentation, including the current versions, are maintained in the laboratory Equipment Register List, as well as in applicable SOPs. Versions are updated as needed. Computer software is tested and documented to be adequate for use, e.g., internal audits, personnel training.

4.3. Procurement Documents

Procurement documents will clearly specify all information and requirements necessary to ensure that the correct materials and services are purchased and received. Any discrepancies between request and contracts shall be resolved before any work commences. Request and contracts shall be reviewed to determine the effect of financial, legal and time schedule aspects. Any amendments to the request or contract after work has commenced shall require another review process



5. SAMPLE CONTROL

Samples and other material received from clients shall be handled and maintained in accordance with laboratory SOPs. Sample Receipt detailed procedures can be found in SOP 12.

5.1. Receipt of Materials

- 5.1.1. Samples and materials received from clients, and any other materials received from an outside source in the regular course of business, will be inspected upon receipt to ensure that they meet specified quality requirements. All conditions, including any abnormalities or departures from standard conditions, shall be recorded according to SOPs.
- 5.1.2. A unique laboratory identification number is assigned to each client sample at the time of login. This unique laboratory identification allows the sample to be controlled and tracked during storage, handling, and disposal. As part of the login process, sample are inspected and labeled with the unique laboratory identification. This unique ID number is also used to associate the analytical results with the sample.
- 5.1.3. Other materials will be properly identified upon verification that they meet specified quality requirements.

5.2. Storage, Handling, and Disposal

- 5.2.1. Samples and materials received from clients will be stored and handled in a manner that ensures the integrity and quality characteristics are maintained.
 - All samples are stored away from all standards; reagents, food, or any other potentially contaminating sources in such a manner as to prevent cross contamination.
- 5.2.2. Samples, sample extracts, and any other sample preparation fractions are stored according to the conditions specified by preservation protocols or according to the appropriate test method.
- 5.2.3. Samples are stored for a minimum of 30 days. If the client provides any relevant instructions regarding sample storage, then the samples are stored according to the client's request.
- 5.2.4. Samples will be disposed of in a manner that:
 - Protects the environment
 - Complies with applicable regulatory requirements
 - Complies with any project specific requirements
- 5.2.5. Excess sample volume will either be returned to the client or disposed of in accordance with the applicable procedure



- 5.2.6. Access to laboratories and sample storage facilities will be restricted to authorized personnel to further ensure that sample integrity is maintained.
- 5.2.7. Ambient conditions will be monitored in storage facilities and laboratories where control of those conditions is necessary to maintain the integrity of the sample.
- 5.2.8. See Vista's Chemical Hygiene Plan for further information about sample disposal and handling of hazardous waste.
- 5.3. Sample containers, preservation, and holding times can be found in document WI-PHT.
- 5.4. Notification of Problems

Clients or suppliers will be notified if the integrity of their samples or materials is jeopardized either upon receipt or while in the possession of the company.

5.5. Records

Records of all procedures to which a sample is subjected to while in the laboratory shall be maintained. Chain of custody records, including documentation in laboratory LIMs system, shall establish an intact, continuous record of the physical possession, storage, and disposal of all samples.

6. TRACEABILITY OF MATERIALS

Procedures for identifying, controlling, and tracking items purchased from vendors, items developed in-house, samples received from clients, and client reports are detailed in SOPs.

Purchased materials and supplies will be checked to confirm that they meet quality specifications.

6.1. Verification of Items Developed In-house

Items developed in-house such as computer programs, equipment, and procedures, will be tested to verify that they meet the intended objectives. Test records will be maintained so that results contained in client reports can be traced to specific items.

6.2. Control of Laboratory Samples

Samples will be batched for analysis. Each batch will be assigned a unique batch number that will be used to associate sample results with quality control data.

6.3. Standards and Reagents Traceability

Documented procedures shall exist for the purchase, reception, and storage of consumable materials used for the technical operations within the laboratory. Certificate of Analysis records for all source standards shall be retained.



Reagent and standard preparation documentation shall indicate traceability to purchased stock or neat compounds, reference to method of preparation, date of preparation, expiration date, and preparer's initials.

6.4. Quality Control Records

Records will be maintained to trace calibration standards and instrument calibration data to NIST or USEPA standards as appropriate. If NIST or USEPA standards are not available other standards will be used which are acceptable to specific project requirements. In compliance to A2LA, external calibrations and verifications must be recorded in a calibration certificate or report and must include an endorsement by the recognized Accreditation Body's symbol (or otherwise makes reference to accredited status by a specific, recognized accreditation body); and an indication of the type of entity that is accredited (e.g., via an accreditation certificate number, inclusion of "calibration laboratory" with the symbol, etc.); and the measurement uncertainty.

In-house calibrations must be performed as per SOP 11 (for support equipment) and method specific requirements.

- 6.4.1. Each instrument will be assigned a unique ID number. Records will be maintained to document the performance and maintenance of each instrument.
- 6.4.2. Records will be maintained to identify the individuals responsible for preparing calibration standards, analyzing samples, and reviewing analytical data.
- 6.4.3. Quality control records will be maintained to demonstrate that individual test procedures have been verified. Individual analytical results will be traceable to these quality control records.

6.5. Reports

All client reports are uniquely identified. Where appropriate, contract or purchase order numbers will be referenced on client reports.

6.6. Instruments and Equipment

All measuring operations and testing equipment affecting accuracy or validity of tests shall be calibrated and verified before being put into service and on a continuing basis.

7. PROCESS CONTROL

Analytical procedures and other processes that directly affect the quality of services will be conducted under controlled conditions using SOPs that are written at a level of detail appropriate to the complexity of the process.



Personnel will be properly trained before being given responsibility for an analytical procedure or other process that directly affects the quality of a service.

7.1. Instruments and Facilities

- 7.1.1. Analytical instruments will be maintained in a condition, which will ensure that they are able to meet specified operating conditions.
- 7.1.2. Laboratory facilities will be designed to meet specific operating conditions, and maintained in a condition, which will ensure that the operating conditions are consistently met.
- 7.1.3. Results of quality control checks will be recorded.

7.2. Performance Audits

- 7.2.1. The laboratory shall ensure the quality of results provided to clients by implementing checks to monitor the quality of the laboratories analytical activities.
- 7.2.1.1 Internal QC procedures.
- 7.2.1.2 Participation in proficiency testing or other interlaboratory comparisons.
- 7.2.1.3 Use of certified reference materials.

8 LABORATORY INSTRUMENTATION

All laboratory instrumentation and testing equipment used by the company will be maintained and calibrated in accordance with SOPs to verify proper operation. If the laboratory acquires a different type of equipment to support an accredited method, the laboratory will develop SOPs to detail its use, update this section of the QA Manual to address the change, and will submit amendment applications to each accrediting body for which the laboratory holds accreditation in related methods, and will retain all records required to support compliance with these requirements. Table 8 details a list of current laboratory instrumentation for analysis.

Instrumentation will be placed into service dependent upon the capability of achieving the accuracy required and shall comply with relevant specifications to the instrument. Each instrument will be maintained and operated to meet the QA/QC requirements of the methods and procedures being performed on that instrument.

Authorized personnel shall operate laboratory instrumentation and testing equipment.

Instrumentation and equipment will be used in a manner that ensures that measurement uncertainty is known and consistent with specified quality requirements.

Methods and intervals of calibration specified for each instrument will be based on the individual operating characteristics of the instrument and the quality requirements of the analytical procedure.



Vista maintains inventory of all instrument consumables, including columns, filaments, needles, etc. In addition, Vista has a stock of duplicate equipment for critical parts, such as ion sources and circuit boards, so they can be switched out with minimum downtime. Vista has redundancy in all instrumentation to ensure that work will continue despite major equipment failures. In addition, Vista maintains relationships with the instrument manufacturer (Waters) and as well as third party service providers, for multiple sources for all parts. Vista also has a former-Waters engineer on staff to assure that needed maintenance and repair of the instruments is handled quickly and efficiently.

8.1 Calibration Standards and Instruments

- 8.1.1 Calibration and verification procedures will use standards and instruments, whenever applicable, that are traceable to recognized national or international standards. Where traceability to national standards does not exist, the basis for the calibration will be documented.
- 8.1.2 Prior to use, laboratory instrumentation and testing equipment shall be calibrated, or calibration verified and checked to establish that it meets the laboratory's specification requirements and complies with the relevant standard specifications.
- 8.1.3 Prior to use, laboratory instrumentation and testing equipment shall be calibrated, or calibration verified and checked to establish that it meets the laboratory's specification requirements and complies with the relevant standard specifications
- 8.1.4 Where applicable, reference standards and instrumentation will be checked periodically between calibration and verification procedures.

8.2 Calibration Records

- 8.2.1 Except for procedures requiring reanalysis, calibration prior to each analysis and previous calibration data will be reviewed when an instrument is out of calibration to determine whether the analytical results are acceptable.
- 8.2.2 Instruments that are unable to maintain calibration or not operating properly will be taken out of service. Instruments will not be placed back into service until they have been repaired and verified to be operating properly.
- 8.2.3 The records for each test or calibration shall contain sufficient information to indicate whether specified quality or process parameters are achieved. Each instrument will be assigned a unique ID number. Records will be maintained to document the performance and maintenance of each instrument.



Table 8 Instrument List

Name	ID	Acquired
Waters Autospec Ultima High Resolution Mass Spectrometer	VG-7 (D)	2001
Waters Autospec Premier High Resolution Mass Spectrometer	VG-10 (H)	2008
Waters Autospec Ultima High Resolution Mass Spectrometer	VG-11 (K)	2015
Waters Autospec Ultima High Resolution Mass Spectrometer	VG-12 (R)	2020
Waters Acquity Mass Spectrometer (TQ™S) MS/MS	Q-4 (M)	2017
Waters XEVO Triple Quadrupole Mass Spectrometer	Q-5 (P)	2018
Waters Acquity Mass Spectrometer (TQTMXS) MS/MS	Q-6 (Q)	2019
Waters Acquity Mass Spectrometer (TQTMXS) MS/MS	Q-7 (S)	2021
Waters Acquity Mass Spectrometer (TQTMXS) MS/MS	Q-8 (T)	2022

9 QUALITY RECORDS

Procedures for identification, collection, indexing, access, filing, storage, maintenance and disposal of quality and technical records shall be in accordance with SOPs. Quality records shall include internal audits and management reviews as well as records of corrective actions and preventative actions. Technical records include original observations, calculations and derived data, calibration records and a copy of final report.

- 9.1 Documentation of Quality Records
 - 9.1.1 Quality records will be generated in accordance with the specification of applicable procedures, programs, and contracts. These records will be maintained to demonstrate that specified quality requirements are met, and that the Quality System is functioning successfully.
 - 9.1.2 Quality records of subcontractor services which affect the quality of the company's services will be required to meet the conditions of this section.
 - 9.1.3 Documents will be clean, legible, and will reference back to the specific activities or procedures to which they apply.
- 9.2 Quality and Technical Records
 - 9.2.1 Quality and technical records shall be conducted in accordance with SOPs.



- 9.2.2 History of all samples must be traceable and readily understood through the documentation.
- 9.2.3 Instruments may not be used in analytical procedures unless maintenance and calibration records indicate that specified quality requirements are achieved. The results of instrument maintenance and calibration inspections will be clearly identified either on the instrument or in maintenance and calibration documents.
- 9.2.4 Work must pass specified quality requirements before it will be released to the succeeding step in the process or, finally, to the clients. The results of quality control checks on work processes will be documented in a manner that clearly indicates the status of the work to the responsible personnel.
- 9.2.5 Individuals authorized to conduct instrument maintenance and calibration procedures and quality control checks will be identified in the documentation.
- 9.3 Records Management and Storage
 - 9.3.1 The laboratory shall retain on record all original observations, calculations and derived data, calibration records and a copy of report for a minimum of five years. This applies to both manual and electronic data.
 - Individual records will be reviewed and noted if storage requirements longer than five years are required based on client, project or state specific regulations.
 - All documents, including PT samples pertaining to The Massachusetts Department of Environmental Protection (MassDEP), will be retained for a minimum of 10 years, per 310 CRM.
 - 9.3.2 Other records which must be retained for a minimum of five (5) years include internal and external audit reports, corrective action records, PT data and reports, laboratory equipment details and logs, and facility floor plans and checks (such as fume hood verifications).
 - 9.3.3 Records must provide sufficient information for an adequate audit trail that produces the same results for the sample analytical data. The sample from receipt to analysis must be readily understood through documentation.
 - 9.3.4 All records shall be safely stored, held secure and in confidence to the clients. NELAP related records shall be available to the accrediting authority
 - 9.3.5 All records shall be archived and protected from fire, theft, loss, and environmental deterioration. Any access to archived information shall be documented in the Archive Access Log



- 9.3.6 Quality documents will be stored in a manner that protects them from loss, damage, unauthorized alterations, and where applicable, held in confidence to the client.
- 9.3.7 Documents will be indexed and filed in a manner that allows them to be readily retrieved. Clients will be provided access to records that document the quality of work done for them.
- 9.3.8 If the laboratory were to transfer ownership, the procedures on handling documents would remain the same. The transfer would ensure that the procedures in place prior to transfer show little significant change for client ease into transition.
- 9.3.9 If the laboratory were to go out of business, the laboratory would contact the client with the option of how they would like to proceed with their data. All data would be handled according to client or Vista approval for proper destruction or safekeeping.

10 CORRECTIVE ACTION

Nonconforming conditions are when any aspect of the quality system or technical operations does not conform to procedures or to client requirements. Nonconforming conditions have an adverse effect to the quality specifications and are handled in accordance with SOPs. If a nonconformance occurs, where necessary, the client shall be notified.

The applicable documents, SP-NCPA and SR-AR, provide instructions for determining the root cause of nonconforming conditions, designing and implementing corrective action, and evaluating the effectiveness of the corrective action.

10.1 Causes of Nonconformance

Procedures will be implemented to determine the root cause of nonconformance conditions, and the corrective action will be designed to eliminate the root cause and prevent reoccurrence.

10.2 Corrective Action

- 10.2.1 Corrective actions are taken immediately, together with any decision about the acceptability of the nonconforming work. When nonconforming work is identified, the Laboratory Director, Technical Director and Quality Assurance Director work together to investigate the source of the nonconformance. Either manager may halt work and withholding test reports, as necessary. Work shall not resume until the Laboratory Director has authorized the resumption of work.
- 10.2.2 Procedures that result in or allow nonconformance conditions will be revised. If necessary, new procedures will be written.



10.2.3 The revised or new procedures will be implemented and evaluated to ensure that the corrective action steps taken effectively eliminate the nonconformance conditions.

10.3 Documentation

10.3.1 Results of root cause analyses and corrective action steps implemented to eliminate nonconformance conditions will be documented and reported to appropriate levels of management in accordance with laboratory SOPs. Records of corrective actions are maintained by QA Director.

11 REPORTS

Handling, storage, packaging, and, when applicable, delivery of client reports will be conducted in accordance with SOPs to ensure that specified quality requirements and confidentiality of the reports are maintained. The reports shall include all the information requested by the client or required by the method used. Reports may also include electronic data. Electronic data will follow the same criteria as reports. Any information not reported to the client shall be readily available in the laboratory.

- 11.1 Handling and Storage of Reports
 - 11.1.1 Reports and files will be handled in a manner that ensures that client confidentiality is maintained, and that the reports are protected from loss, damage, or unauthorized alterations.
 - 11.1.2 All reports and files will be coded for ease of identification and retrieval.
 - 11.1.3 File cabinets and storage rooms will be designed to protect any completed hardcopies of reports from loss, damage or unauthorized alterations.
 - 11.1.4 Computer files will be backed up to electronic storage media and stored in a manner that protects them from loss, damage, or unauthorized personnel.
 - 11.1.5 The condition of reports and files in storage will be periodically evaluated to ensure that there is no deterioration, and that the reports remain readily accessible to authorized personnel.
 - 11.1.6 NELAP related records shall be made available to the accrediting authority and shall be maintained for a minimum of five years.
 - 11.1.7 Individual records will be reviewed and noted if storage requirements longer than five years are required based on client, project or state specific regulations.
- 11.2 Packaging and Delivery of Reports
 - 11.2.1 Client reports will be inspected prior to delivery to ensure that they meet specified quality requirements and include complete results for all



- requested analyses. Then the reports will be packaged for delivery to the client in a manner that ensures protection while in transit.
- 11.2.2 When required by specific contractual stipulations, the company will assume responsibility for protection of client reports while in route to the client.
- 11.3 Laboratory Report Format and Content

All laboratory reports shall include, at least, the following information:

- 11.3.1 A title, indicating the nature of the document (i.e. Test Report, Laboratory Results);
- 11.3.2 Name and address of the laboratory, location analysis was conducted if different from the address of the laboratory, and a phone number with name of a contact person;
- 11.3.3 Unique identification of the report and of each page, and the total number of pages. It must be clear that discrete pages are associated with a specific report, and that the report contains a specified number of pages;
- 11.3.4 NELAP accredited logo and a statement certifying that the report meets all requirements of NELAP and cannot be reproduced except in full without the written permission of the laboratory;
- 11.3.5 Name and address of client, where appropriate and project name if applicable;
- 11.3.6 Description and unambiguous identification of the tested sample including the client identification code;
- 11.3.7 Identification of test results derived from any sample that did not meet NELAP sample acceptance requirements such as improper container, holding time, or temperature;
- 11.3.8 Date of receipt of sample, date and time of sample collection, date(s) of performance test, and time of sample preparation and/or analysis if the required holding time for either activity is less than or equal to 72 hours;
- 11.3.9 Identification of the test method used, or unambiguous description of any non-standard method used;
- 11.3.10 If the laboratory collected the sample, reference to the sampling procedure;
- 11.3.11 Any deviations from, additions to or exclusions from the test method, and any non-standard conditions that may have affected the quality of results, and including the use and definitions of data qualifiers



- 11.3.12 Measurements, examinations and derived results, supported by tables, graphs, sketches and photographs as appropriate, and any failures identified; identify whether data are calculated on a dry weight or wet weight basis, identify the reporting units
- 11.3.13 A signature and title, or an equivalent electronic identification of the person(s) accepting responsibility for the content of the report, and date of issue;
- 11.3.14 Clear identification of all test data provided by outside sources, such as subcontracted laboratories, clients, etc.
 - The original report from subcontracted laboratories should be included in the client laboratory report.
- 11.3.15 Reports shall, when required, include a statement of compliance/non-compliance with requirements and/or specifications, including identification or test results derived from any sample that did not meet NELAP sample acceptance requirements such as improper container, holding time, or temperature.
- 11.3.16 Additional information, which may be required by specific methods, clients or groups of clients.
- 11.3.17 After issuance of the report, the report remains unchanged.
- 11.3.18 Any report that requires amending must clearly state that the report has been revised. The amended report must also meet the requirements set forth within the most recent TNI standard.



DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank

Conc. Concentration

CRS Cleanup Recovery Standard

D Dilution

DL Detection limit

E The associated compound concentration exceeded the calibration range

of the instrument.

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

IS Internal Standard

J The amount detected is below the Reporting Limit/LOQ

K EMPC (specific projects only)

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

MDL Method Detection Limit

NA Not applicable

ND Not Detected

OPR Ongoing Precision and Recovery Sample

P The reported concentration may include contribution from chlorinate

diphenyl ether(s)

Q The ion transition ratio is outside of the acceptance criteria

RL Reporting Limit

TEQ Toxic Equivalency

U Not Detected (specific project only)

* See Cover Letter

Unless otherwise noted, solid sample results are reported on a dry-weight basis. Tissue samples are reported on a wet-weight basis.



12 PERFORMANCE AND SYSTEM AUDITS

Performance, System, and External audits are conducted to verify conformance with Vista's quality assurance program, to determine the effectiveness of the QA program, and to continually improve Vista's data quality.

12.1 System Audits

- 12.1.1 Internal audits (facility audits) of activities affecting the quality of the company's services will be conducted by the QA Department on a regular schedule in accordance with laboratory SOPs. Internal audits are performed periodically and at least annually. The QA Director is trained and qualified as an auditor who, wherever possible, is independent of the activities being audited. Other QA department members are trained prior to conducting internal audits. Internal audits verify that operations continue to comply with the requirements of the quality system and NELAP standards.
- 12.1.2 It is the responsibility of the QA Director to plan and organize audits based on a predetermined schedule or as requested by management.
- 12.1.3 SOPs and checklists will be used to focus the internal audit on specific activities of the area to be audited.
- 12.1.4 Personnel will not be allowed to audit activities for which they are responsible or in which they are directly involved, unless it is demonstrated that an effective, nonbiased, audit can be performed.
- 12.1.5 Results of internal audits will be documented by the audit team and submitted to the manager(s) in charge of the audited area and the management of the QA Director.
- 12.1.6 Appropriate corrective action steps will be promptly taken to address any deficiencies or areas for improvement identified by the internal audit. Laboratory management shall ensure that these actions are within the agreed time frame.
- 12.1.7 If client work was affected by any found deficiencies, laboratory management will notify the client, in writing, within five business days.
- 12.1.8 All records of internal facility inspections and responses will be maintained by the QA Director.
- 12.1.9 Form SR IAACP Internal Audit Completion Plan will be completed by QA to ensure all internal audits, including annual Ethics class refresher, is completed as part of the internal audit program.

12.2 Management Reviews

12.2.1 Management shall review the laboratory's management systems annually to evaluate its continuing suitability and effectiveness, make



- any necessary changes or improvements, and follow up on previous recommendations.
- 12.2.2 The review includes reports from managerial and supervisory personnel, the outcome of recent internal audits, assessments by external bodies, the results of interlaboratory comparisons or proficiency tests, any changes in the volume and type of work undertaken, feedback from clients, corrective and preventative actions, in-depth monitoring of data integrity, and other relevant factors.
- 12.2.3 The management review procedure including scheduling is available on the Laboratory network.

12.3 Performance Testing Samples

- 12.3.1 Performance testing samples are conducted as single blind assay samples. A performance testing sample (PT), purchased from an independent contractor, and is analyzed twice a year for each accredited method/matrix combination, when available from a TNI- or DoD-approved vendor. The acceptable result for the PT sample is unknown until after the experimental result is reported to the contractor. Other externally originated PTs are analyzed when supplied by the client as either a single blind or double-blind sample and are scheduled through the laboratory as routine samples. All performance testing samples are handled in the same manner as real environmental samples including staff, method, procedures, equipment, facilities, and frequency.
- The samples shall be analyzed, and results returned to the PT Provider no later than 45 calendar days from the opening of the study. Vista will instruct the PT provider to send graded reports directly to the accrediting bodies for which Vista holds associated accreditation.
- 12.3.3 When analyzing a PT sample, the same calibration, laboratory quality control and acceptance criteria, sequence of analytical steps, number of replicates and other procedures are employed as used when analyzing routine samples.
- 12.3.4 No PT sample, or a portion of a PT sample, shall be sent to another laboratory for any analysis.
- 12.3.5 No PT sample or portion of a PT sample shall be knowingly received from another laboratory for which the PT results could be used to support accreditation.

Note: Archived PT sample volume may be shared with other Enthalpy laboratories for the purposes of trouble-shooting or method development.



- 12.3.6 Vista Analytical Laboratory management or staff shall not communicate with any individual at another laboratory concerning the PT sample results or attempt to obtain the assigned value of any PT sample from their PT Provider prior to the study's closing date.
- 12.3.7 Laboratory staff shall not ask the PT provider to alter any portion of the graded report after it has been issued as final.
- 12.3.8 Vista shall maintain copies of all written, printed, and electronic records, resulting from the analysis of any PT sample for five years or for as long as is required by the applicable regulatory program, whichever is greater. All of these laboratory records shall be made available to the assessors during on-site audits of the laboratory.
- 12.3.9 In the event that the laboratory receives test results that are "unacceptable", the likely cause is investigated, identified, and resolved. A Corrective Action PT sample, for which the laboratory may report only the analytes for which corrective action was required, will then be analyzed. Documentation of the corrective action as well as the corrective action PT scores will then be submitted to the applicable accrediting authorities. The laboratory will provide A2LA the results of the Proficiency Testing and any related corrective action(s) within 14 days of receipt. Follow up results (if required) will be provided within 45 days.
- 12.3.10 For CA ELAP compliant PT samples, the following actions will be taken: Upon receipt of a second subsequent "not acceptable" score, ELAP will be notified of the "not acceptable" results within three (3) days; Cease reporting of results of regulatory purposes for that corresponding FOA (Field of Accreditation); Notify affected clients of second 'Not Acceptable" PT results by registered mail, email with return receipt, or electronic signature document; within thirty (30) days; investigate and document the root cause of the failure and take corrective action.

12.4 External Audits

External audits are performed on an on-going basis by clients, regulating agencies (State and Federal), or other third-party auditors. These audits are prescheduled with the client and QA Director to ensure that the appropriate laboratory personnel are available to address all audit inquiries. All deviations or deficiencies noted during the audit are to be addressed in the time frame provided by the auditor.

12.5 Data Audits

12.5.1 Data audits at Vista utilize a three-tier data review system involving the Laboratory Director, Project Managers and the QA Director.



13 TRAINING

Training assessments and all related training documentation shall be conducted in accordance with SOPs.

13.1 Initial On-Site Training

- 13.1.1 The training requirement of each employee will be assessed periodically to ensure the competency of their job responsibilities that career development objectives are being met, and that general-purpose educational opportunities are being utilized. The training program shall be relevant to the present and anticipated tasks of the laboratory.
- 13.1.2 Previous training, education, and experience will be considered when evaluating the training needs of each employee.
- 13.1.3 Manuals, texts, SOPs, journals, analytical methods and in-house Analytical Procedures are available for all new trainees, with on the job training performed by senior staff.

13.2 Training Programs

- 13.2.1 Job related training will be provided through regularly scheduled inhouse seminars and courses, university courses, conferences and seminars, and one-on-one on the job tutorials.
- 13.2.2 Specified performance criteria must be successfully met while under supervision before personnel will be made responsible for activities that affect the quality objectives of the company.

13.3 Training Documentation

- Training records will be maintained in each individual's training file.

 These records will be readily available to supervisors to ensure that employees have demonstrated capability prior to performing activities for which they are responsible. Employees are responsible for keeping their training file up-to-date. The training files shall maintain records of competence, education and professional qualifications, training, skills and experience of all technical personnel, including contracted personnel.
- 13.3.2 Evidence will be kept on file demonstrating that each employee has read and understood the current version of in-house quality documents (QM, QAPP, SOPs).
- 13.3.3 Documentation of training courses.
- 13.3.4 Documentation of continued proficiency at least once per year.



14 CLIENT SERVICES

Routine client service as well as responses to client inquires, audit reports, recommendations, and complaints will be handled in accordance with SOPs.

14.1 Routine Services

- 14.1.1 Each client will be assigned a Project Manager who will be responsible for ensuring that the needs of the client are clearly understood and communicated to the appropriate areas of the company.
- 14.1.2 The Project Manager reviews all new work to ensure that it has the appropriate facilities and resources before commencing such work. Once the Project Manager accepts the new work, an acknowledgement letter is sent to the client for confirmation.
- 14.1.3 Clients will be given the opportunity to verify that the company's services conform to specified requirements. Regardless of whether client verifications are conducted; the Quality System will be responsible for ensuring that all services conform to specified requirements.
- 14.1.4 As the client's representative, the Project Manager will be responsible for ensuring that the client's needs are met. The Project Manager will maintain good communication, advice and guidance in technical matters.
- 14.1.5 All client data are managed and maintained with the utmost care and diligence to ensure that the protection of clients' confidential information and proprietary rights are a primary concern.

14.2 Contract Review

- 14.2.1 For all analytical services to be provided, contract review is performed by the Contract Administrator and Project Manager. Sales and client services personnel are responsible for implementing and documenting contract review. Client requirements are defined and documented in the written quote or contract.
- 14.2.2 For large or new projects, the proposal is given to the Laboratory Director for review. The Laboratory Director will, if required, request input from the Technical Director, Quality Assurance Director, and Technical Sales in preparing a response to the proposal.
- 14.3 Responses to Client Audits, Inquiries, and Complaints
 - 14.3.1 The QA Director will be responsible for coordinating responses to client audits.
 - 14.3.2 Complaints received from clients or other parties regarding data or laboratory activities will be directed to the appropriate Project



- Manager and reported to the Technical Director or Laboratory Director.
- 14.3.3 If a corrective action(s), which may require completion of a CAPA (corrective action / preventative action report), is taken, this will be documented and archived with the appropriate project data.
- 14.3.4 All complaints will be documented and records of actions in response to any complaints will be maintained.
- 14.3.5 If a complaint raises doubt regarding the laboratory's policies or compliance with NELAP or other standards, those areas shall be promptly reviewed or audited by the laboratory QA Director.

15 STATISTICAL TECHNIQUES

Statistical techniques used to monitor the performance of activities that directly affect quality objectives will be conducted in accordance with SOPs.

- 15.1 Statistical Process Control Procedures
 - 15.1.1 Statistical Process Control (SPC) will be used to monitor analytical procedure performance indicators such as accuracy and precision, and process performance indicators such as turnaround time and Nonconformance reports.
 - 15.1.2 Results of SPC analyses will be used to improve processes that affect quality objectives.

16 SUBCONTRACTING

- 16.1 Vista Analytical may subcontract services, or may refer a client directly to another lab, for a particular analysis. Subcontracted laboratories are held responsible for the implementation of their own QM and meeting their data quality objectives.
- 16.2 Clients shall be notified prior to subcontracting any portion of their testing to another laboratory.
- 16.3 Services requiring NELAP accreditation will only be subcontracted to a laboratory with NELAP accreditation.
- 16.4 For DoD clients, subcontractor laboratories must have records to demonstrate their compliance with ISO/IEC 17025 for the subcontracted work in question, documented compliance with DoD QSM requirements, must be approved by the specific DoD laboratory approval process, must demonstrate the ability to generate acceptable results through the analysis of proficiency testing samples, and must receive project-specific approval from the DoD client before any samples are analyzed.



- 16.5 For services associated with projects outside of California, individual state accreditations may need to be maintained by the laboratory.
- 16.6 Vista Analytical shall retain records demonstrating that the above requirements have been met. Original reports received from a subcontracted laboratory will be included with the client's test report.
- 16.7 All subcontracted samples must meet the original requirements of the regulatory State or client contract, per project agreements. All State or client specific requirements are documented by the laboratory in Work Instruction, Project Memo's or other laboratory control documents.
- 16.8 Where the certificate or reports contains results of tests performed by subcontractors, these results are clearly identified by subcontractor name or applicable accreditation number and the entirety of the subcontract report is included with the final Vista report.

17 DATA INTEGRITY AND ETHICS

Vista Analytical Laboratory expects employee compliance with all laboratory SOPs and applicable regulatory guidelines and standards. Vista encourages participation in cooperative and educational efforts designed to promote and inform laboratory personnel of the necessity of active compliance.

- 17.1 Vista does not condone and will not tolerate the fraudulent manipulation or falsification of data, intentional non-compliance, gross negligence, or any other unethical conduct. Employees who are aware of, or reasonably suspicious of, any case fraudulent or unethical conduct shall notify the Technical Director, Laboratory Director, or QA Director. Allegations of unethical conduct may be reported anonymously and will be fully investigated under the direction of the QA Director. The investigation will be performed in a confidential manner until a full investigation or other appropriate actions have been completed and the issues clarified.
- 17.2 Any employee who knowingly manipulates and/or falsifies data or documents or engages in any unethical conduct is subject to immediate release from employment and other serious consequences.
- 17.3 Vista Analytical Laboratory provides mandatory initial and annual or as needed, Laboratory Ethics and Data Integrity refresher training to all employees. All employees must complete the Ethics and Integrity Training (online or in person) within 30 days of introduction. Topics covered are approved by management, documented in writing, and provided to all trainees.
 - 17.3.1 Training topics include:
 - Quality System requirements
 - Personnel training requirements
 - Vista Analytical Laboratory Ethics policy



- Examples of actions that are strictly prohibited
- Other breaches of data integrity
- Pertinent SOPs and other quality documents
- Potential consequences of misconduct
- Confidential mechanism for reporting allegations
- Investigation procedures and documentation
- "No-fault" policy to encourage personnel to come forward and report any fraudulent activities.
- 17.3.2 All employees are required to sign an ethics statement and documentation of training attendance that demonstrates they have participated and understand their obligations related to data integrity within 30 days of introduction. This sheet is maintained in individual training records.
- 17.4 Upon hire, new employees are required to read and sign a confidentiality statement. This signed statement is maintained in personnel files.
- 17.5 Vista has implemented a variety of proactive measures to promote prevention and detection of improper, unethical, or illegal activities. The following components constitute a system of in-depth periodic monitoring of data integrity:
 - a) An Ethics and Data Integrity Agreement that is read and signed by all personnel;
 - b) Initial and annual ethics training;
 - c) System audits and internal audits, including periodic spot audits for follow ups or detection of improper practices.
 - d) Analyst notation and sign-off on manual integration changes to data;
 - e) Use of audit trails when available;
 - f) Review of 100% of all data by management or data review department;
 - g) Monitoring of performance testing (PT) samples on a routine basis to ensure production of data that meets the objectives of the quality assurance program;
 - h) Ensuring lab SOPs follow reference analytical methods.

18 CONFIDENTIALITY, IMPARTIALITY AND CONFLICT OF INTEREST

- 18.1 The laboratory shall remain as a separate entity from any and all clients.
- 18.2 The laboratory shall identify risks to its impartiality on an on-going basis. This shall include those risks that arise from its activities, or from its relationships, or from the relationships of its personnel. However, such relationships do not necessarily present a laboratory with a risk to impartiality.



- 18.3 Vista employees are prohibited from creating certain situations that may create a substantial conflict of interest. Specifically, employees are not allowed to:
 - work for a direct competitor (either to Enthalpy or other Montrose companies) or PT provider in any capacity,
 - work directly for a laboratory client in the same or related capacities as work performed for the laboratory, or
 - disclose confidential, proprietary or financial Enthalpy/Montrose information,
 - accept gifts, gratuities, or awards of other than nominal value from any client, supplier, or agency.

If any other situation arises that may create a conflict of interest, Vista employees are encouraged to review Montrose's Employee Handbook and discuss the situation with the Laboratory Director.

- 18.4 If a risk to impartiality is identified, the laboratory shall open an Action Plan to identify source of impartiality and implement appropriate corrective measures.
- 18.5 The laboratory shall be responsible, through legally enforceable commitments, for the management of all information obtained or created during the performance of laboratory activities.
- 18.6 The laboratory shall not place information on a public domain unless instructed to by the client or required by a regulatory body. Client shall be informed on this in advance. All other information is considered proprietary information and shall be regarded as confidential.
- 18.7 When the laboratory is required by law or authorized by contractual arrangements to release confidential information, the customer or individual concerned shall, unless prohibited by law, be notified of the information provided.
- 18.8 Information about the customer obtained from sources other than the customer (e.g. complainant, regulators) shall be confidential between the customer and the laboratory. The provider (source) of this information shall be confidential to the laboratory and shall not be shared with the customer, unless agreed by the source.
- 18.9 Personnel, including any committee members, contractors, personnel of external bodies, or individuals acting on the laboratory's behalf, shall keep confidential all information obtained or created during the performance of laboratory activities, except as required by law.



APPENDIX_1: Laboratory Standard Operating Procedures Effective 9/29/22 (an updated list is available upon request)

Document ID	Current Revision	Laboratory Procedures (SOP)	Current Effective/ Reapproval Date	Review Period (years)
SOP 1	4	Laboratory (Facility) Security	2/01/21	3
SOP 5	10	Data Collection, Reporting, and Archival	3/03/22	3
SOP 6	7	Corrective Actions & Non-Conformances	6/16/21	3
SOP 7	5	Control Charts	3/03/22	3
SOP 8	14	Method Detection Limits	4/07/22	1
SOP 9	9	Manual Integrations	5/25/21	3
SOP 10	5	Instrument Maintenance Logbooks and Schedule	In revision	1
SOP 11	16	Laboratory Support Equipment	6/24/22	1
SOP 12	21	Sample Receiving & Sample Control Procedures	12/10/21	1
SOP 13	4	Consignment Tracking	9/20/22	3
SOP 14	8	Bottle Order Preparation	7/14/22	1
SOP 15	14	Reagents & Standards – Preparation, Handling, and Documentation	2/21/22	1
SOP 17	4	Preparation and Shipping of Air Sampling Media for in Field Use	3/04/22	3
SOP 18	7	PAH's in MM5 & XAD2 Sampling Trains by CARB 429	3/04/22	2
SOP 19	9	Dioxins & Furans in MM5 Sampling Trains & PUFs by CARB 428, EPA 23, M-0023A or TO-9	3/04/22	2
SOP 20	5	PCBs in MM5 Sampling Trains, PUFs and PUF/XAD2 by 1668-MOD	3/04/22	2
SOP 22	3	Preparation of Surface Wipes	8/09/19	3
SOP 23	10	Dioxins & Furans by 8280A	11/23/20	2
SOP 25	4	2,3,7,8-TCDD (Tetrachlorodibenzodioxin) in Aqueous Samples by 613-MOD	2/01/21	2
SOP 26	26	Dioxins & Furans by 1613B and 8290A	Update in Progress	1



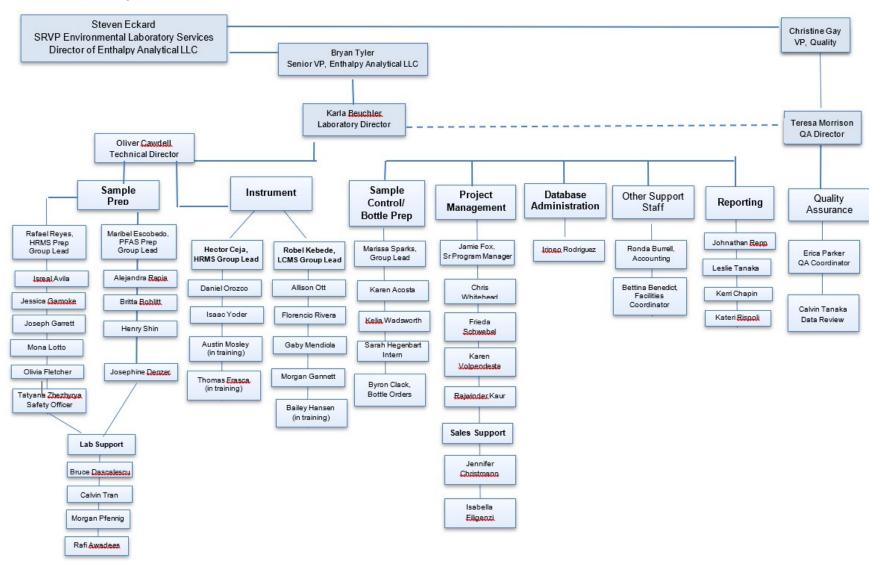
SOP 28	4	Pentachlorobenzene / Hexachlorobenzene / Hexachlorobutadiene by 1625B-MOD	7/21/21	2
SOP 31	20	Polychlorinated Biphenyls (PCBs) by 1668A/ 1668C	5/24/22	1
SOP 32	15	Polybrominated Diphenyl Ethers (PBDE) in Various Matrices by 1614	10/04/19	3
SOP 35	6	Glassware Preparation	2/01/21	3
SOP 36	2	MM5 Sampling Trains for PCDD/PCDF by M0023A, PCB by 1668, and PAH by CARB 429	3/04/22	3
SOP 38	6	Computer Systems	9/01/22	1
SOP 39	11	Pesticides by 1699	2/01/21	3
SOP 40	2	Pharmaceuticals & Personal Care Products (PPCP) by 1694	6/19/21	3
SOP 42	5	Computer Software Validation	3/3/22	2
SOP 44	2	Incremental Subsampling	5/18/22	3
SOP 47	5	PAHs by 8270-MOD/ 1625	12/10/20	3
SOP 49	24	Perfluorinated Compounds (PFAS) by Isotope Dilution	1/06/22	1
SOP 59	2	Bligh-Dyer extraction of Lipids	2/02/21	3
SOP 60	5	Tissue Sample Preparation	2/4/22	3
SOP 63	3	Per- and Poly-Fluorinated Compounds (PFAS) in Serum and Milk	5/17/21	3
SOP 64	11	Per- and Poly-Fluorinated Compounds (PFAS) in Drinking Water (537.1)	7/15/22	2
SOP 66	1	TOP Assay (Total Oxidizable Precursor Assay) Preparation for PFAS Analysis	12/17/21	3
SOP 67	3	Polybrominated Biphenyls (PBBS) by 1668-MOD	5/18/22	2
SOP 68	2	Per- and Poly-Fluorinated Compounds (PFAS) in Drinking Water by 533	6/21/22	1
SOP 69	3	Per- and Poly-Fluorinated Compounds (PFAS) - for Wisconsin Samples	6/21/22	2
SOP 70	0	Per- and Poly-Fluorinated Compounds (PFAS) in Drinking Water by EPA 1633-Draft	7/25/22	1



Document ID	Current Revision	Quality Systems Procedures (SP)	Current Effective/ Reapproval Date	Review Period (years)
QAM	31	Vista Quality Assurance Manual	In Revision	1
SP - DC	1	Document Control	5/12/21	3
SP - CR	2	Control of Records	8/05/21	3
SP - TC	4	Training and Competency	5/17/21	3
SP - MR	2	Management Review	6/27/22	3
SP - RRTC	1	Review of Requests, Tenders, and Contracts	5/17/21	3
SP - IA	2	Internal Audits	5/12/21	3
SP - PSS	2	Purchasing Services and Supplies	5/18/21	3
SP - NCPA	1	Nonconformities, Corrective and Preventive Actions	7/26/21	3
SP - CP	1	Communication and Participation	5/18/21	3
SP - PT	2	Proficiency Testing	7/19/21	3
SP-ES	0	Electronic Signatures	9/29/22	3

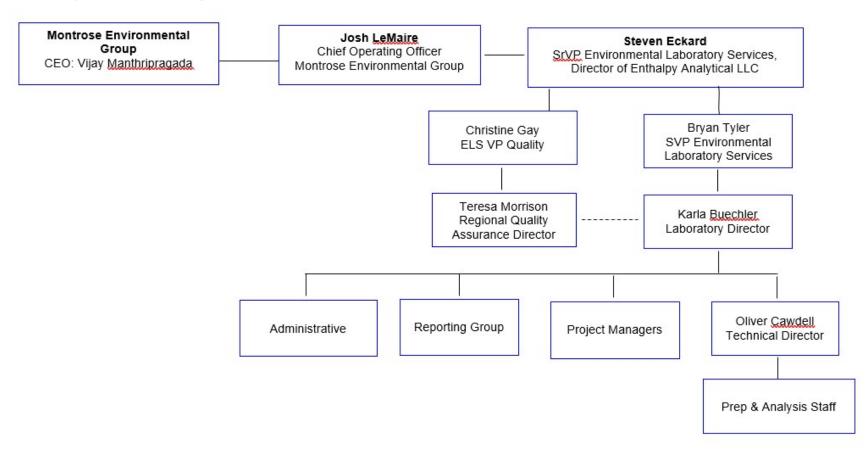


APPENDIX_2: Organization Chart





Enthalpy Corporate Organization





Oregon Environmental Laboratory Accreditation Program



NELAP Recognized

Vista Analytical Laboratory Inc.

4042

1104 Windfield Way

El Dorado Hills, CA 95762

IS GRANTED APPROVAL BY ORELAP UNDER THE 2016 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW:

Air	Drinking Water	Non-Potab <mark>le</mark> Water	Solids and Chemical Waste	Tissue
Chemistry	Chemistry	Chemistry	Chemistry	Chemistry

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Travis Bartholomew
Oregon State Public Health Laboratory
ORELAP Program Manager
7202 NE Evergreen Parkway, Suite 100
Hillsboro, OR 97124

EFFECTIVE DATE: 2/8/2022 EXPIRATION DATE: 2/7/2023 Certificate No: 4042 - 021





Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

1104 Windfield Way El Dorado Hills, CA 95762 ORELAP ID: 4042 EPA CODE: CA00413 Certificate: 4042 - 021

Issue Date: 2/8/2022 Expiration Date: 2/7/2023

Matrix	Reference	Analyte Code	Analyte	Method Code	Description
4ir			OR	30	00
	EPA 23 1		A	10246705	Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		O E
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		1806
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)	ATI	ON
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	0.3.8	THENTH
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

1104 Windfield Way El Dorado Hills, CA 95762 ORELAP ID: 4042 EPA CODE: CA00413

Certificate: 4042 - 021

Issue Date: 2/8/2022 Expiration Date: 2/7/2023

/latrix	Reference	Analyte Code	Analyte	Method Code	Description
		9444	Hpcdf, total	-	A. R.
		9468	Hxcdd, total	E	0
		9483	Hxcdf, total	VE !	.00.
		9555	Pecdd, total		OGN
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	EPA TO- 9A			1024940	Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p dioxin (OCDD)	-	
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofura (1,2,3,4,6,7,8-hpcdf)	an	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofura (1,2,3,4,7,8,9-hpcdf)	an	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	Pr AL HOM	ONB
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)	AI	O
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-diox (1,2,3,7,8-Pecdd)	kin	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

1104 Windfield Way El Dorado Hills, CA 95762 ORELAP ID: 4042 EPA CODE: CA00413 Certificate: 4042 - 021

Issue Date: 2/8/2022 Expiration Date: 2/7/2023

As of 2/8/2022 this list supersedes all previous lists for this certificate number.

Matrix	Reference	Analyte Code	Analyte	Method Code	Description
		9549	2,3,4,7,8-Pentachlorodibenzofuran		LI III III
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	EC	O-See
		9612	2,3,7,8-Tetrachlorodibenzofuran	lim %	UCA
Biol	ogical T	issue	9/		
	EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p- dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		S (5)
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		-018
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	ATT	Ola
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		

9549 9618 2,3,4,7,8-Pentachlorodibenzofuran

2,3,7,8-Tetrachlorodibenzo- p-dioxin

(2,3,7,8-TCDD)



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Vlatrix	Reference	Analyte Code	Analyte	Method Code	Description
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total	E	- C
		9444	Hpcdf, total	E	OGN
		9468	Hxcdd, total		GA,
		9483	Hxcdf, total		
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
	/4	9615	TCDF, total		
	EPA 1614A 1			10120704	Brominated Diphenyl Ethers by HRGC/HRMS
		9902	2,2',3,3',4,4',5,5',6- Nonabromodiphenyl ether (BDE-206)		
		9903	2,2',3,3',4,4',5,6,6'- Nonabromodiphenyl ether (BDE-207)		
		9892	2,2',3,3',4,4',5,6'-Octabromodiphenyl ether (BDE-196)		
		9893	2,2',3,3',4,4',6,6'-Octabromodiphenyl ether (BDE-197)		
		9825	2,2',3,3',4,4'-Hexabromodiphenyl ether (BDE-128)		5 8
		9904	2,2',3,3',4,5,5',6,6'- Nonabromodiphenyl ether (BDE-208)		20/5
		9896	2,2',3,3',4,5,6,6'-Octabromodiphenyl ether (BDE-200)	AT	OND
		9897	2,2',3,3',4,5',6,6'-Octabromodiphenyl ether (BDE-201)		0.
		9871	2,2',3,3',4,5',6-Heptabromodiphenyl ether (BDE-175)		
		9873	2,2',3,3',4',5,6-Heptabromodiphenyl ether (BDE-177)		
		9872	2,2',3,3',4,6,6'-Heptabromodiphenyl ether (BDE-176)		
		9874	2,2',3,3',5,5',6-Heptabromodiphenyl ether (BDE-178)		
		9899	2,2',3,4,4',5,5',6-Octabromodiphenyl		







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Matrix Referen	Analyte	Analyte	Method Code	Description
Matrix Referen		ether (BDE-203)		
	9876	2,2',3,4,4',5,5'-Heptabromodiphenyl ether (BDE-180)	EC	OGN
	9900	2,2',3,4,4',5,6,6'-Octabromodiphenyl ether (BDE-204)	lim %	GA
	9877	2,2',3,4,4',5,6-Heptabromodiphenyl ether (BDE-181)		
	9879	2,2',3,4,4',5',6-Heptabromodiphenyl ether (BDE-183)		
	9835	2,2',3,4,4',5'-Hexabromodiphenyl ether (BDE-138)		OF
	9880	2,2',3,4,4',6,6'-Heptabromodiphenyl ether (BDE-184)		
	9836	2,2',3,4,4',6-Hexabromodiphenyl ether (BDE-139)		
	9837	2,2',3,4,4',6'-Hexabromodiphenyl ether (BDE-140)		
	9784	2,2',3,4,4'-Pentabromodiphenyl ether (BDE-85)		
	9845	2,2',3,4',5,6'-Hexabromodiphenyl ether (BDE-148)		
	9569	2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE-153)		5
	9850	2,2',4,4',5',6-Hexabromodiphenyl ether (BDE-154)		00/5
	9571	2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)	ATI	ONDE
	9851	2,2',4,4',6,6'-Hexabromodiphenyl ether (BDE-155)		
	9572	2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)		
	9773	2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)		
	9747	2,2',4,5'-Tetrabromodiphenyl ether (BDE-49)		
	9749	2,2',4,6'-Tetrabromodiphenyl ether (BDE-51)		
	9716	2,2',4-Tribromodiphenyl ether (BDE-		







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letnin Defenses	Analyte	Applicate	Method	Description
latrix Reference	Code	Analyte 17)	Code	Description
	9867	2,2'3,3',4,4',6-Heptabromodiphenyl ether (BDE-171)	FC	OGN
	9901	2,3,3',4,4',5,5',6-Octabromodiphenyl ether (BDE-205)		GA
	9886	2,3,3',4,4',5.6-Heptabromodiphenyl ether (BDE-190)		
	9887	2,3,3',4,4',5',6-Heptabromodiphenyl ether (BDE-191)		
	9852	2,3,3',4,4',5-Hexabromodiphenyl ether (BDE-156)		OF
	9802	2,3,3',4,4'-Pentabromodiphenyl ether (BDE-105)		
	9862	2,3,4,4',5,6-Hexabromodiphenyl ether (BDE-166)		
	9815	2,3',4,4',5-Pentabromodiphenyl ether (BDE-118)		
	9816	2,3',4,4',6-Pentabromodiphenyl ether (BDE-119)		
	9764	2,3',4,4'-Tetrabromodiphenyl ether (BDE-66)		
	9817	2,3',4,5,5'-Pentabromodiphenyl ether (BDE-120)		5
	9813	2,3,4,5,6-Pentabromodiphenyl ether (BDE-116)		201/5
	9769	2,3',4',6-Tetrabromodiphenyl ether (BDE-71)	АТ	OND
	9720	2,3,4-Tribromodiphenyl ether (BDE- 21)	ALI	
	9724	2,3',4-Tribromodiphenyl ether (BDE- 25)		
	9732	2',3,4-Tribromodiphenyl ether (BDE-33)		
	9774	2,4,4',6-Tetrabromodiphenyl ether (BDE-75)		
	9727	2,4,4'-Tribromodiphenyl ether (BDE-28)		
	9729	2,4,6-Tribromodiphenyl ether (BDE-		







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ix Reference	Analyte Code	Analyte	Method Code D	escription
		30)		A. Or and a second
	9731	2,4',6-Tribromodiphenyl ether (BDE-32)	FC	OGN
	9706	2,4-Dibromodiphenyl ether (BDE-7)	The Park	OC A
	9707	2,4'-Dibromodiphenyl ether (BDE-8)		
	9709	2,6-Dibromodiphenyl ether (BDE-10)		
	9700	2-Monobromodiphenyl ether (BDE-1)		
	9865	3,3',4,4',5,5'-Hexabromodiphenyl ether (BDE-169)		
	9823	3,3',4,4',5-Pentabromodiphenyl ether (BDE-126)		
	9776	3,3',4,4'-Tetrabromodiphenyl ether (BDE-77)		
	9778	3,3',4,5'-Tetrabromodiphenyl ether (BDE-79)		
	9734	3,3',4-Tribromodiphenyl ether (BDE-35)		
	9710	3,3'-Dibromodiphenyl ether (BDE-11)		
	9736	3,4,4'-Tribromodiphenyl ether (BDE-37)		
	9711	3,4-Dibromodiphenyl ether (BDE-12)		
	9712	3,4'-Dibromodiphenyl ether (BDE-13)		
	9701	3-Monobromodiphenyl ether (BDE-2)		
	9714	4,4'-Dibromodiphenyl ether (BDE-15)		010
	5660	4-Bromophenyl phenyl ether (BDE-3)	ATI	01/10/20
	9905	Decabromodiphenyl ether (BDE-209)	LLL	
EPA 1668A				hlorinated Biphenyl Cogeners in Water, Soil, Sediment, and issue by GC-HRMS
	9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
	9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
	9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		
	9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		LRRE
	9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)	E	00.
	9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		OGN
	9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		
	9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ- 128)		
	9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
	9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
	9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
	9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		
	9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
	9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
	9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		8/8/
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		-18
	9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)	ATT	Ola
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ- 129)		
	9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)		
	9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		
	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)		
	9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)	EC	OGN
	9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		GN.
	9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)		
	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)		
	9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		CE
	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ- 134)		
	9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ- 135)		
	9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)		
	9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)		
	9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)		
	9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)		450 //3/
	9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)		00/5
	9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)	AT	ONDE
	9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)	ALI	
	9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)		
	9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)		
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)		
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ-137)		
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description	
		138)		THE PARTY	
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)	FC	0-0	
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)	Hora No.	GA	,
	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)		OGN	
	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)			
	9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)			
	9080	2,2',3,4',5,5 <mark>',6-Heptachlorobiphe</mark> nyl (BZ-187)			
	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ- 141)			
	9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)			
	9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)			
	9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)			
	9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)			6
	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-143)		0	
	9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ- 144)	AT	OND	
	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ- 147)	All		
	9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)			
	9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)			
	9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86))		
	8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)			
	9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)			







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-		
		97)	-	- 100
	9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ- 145)	E	OGN
	9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ- 150)		
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)		
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)		
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ- 91)		OE
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)		
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)		
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)		
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ- 151)		
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)		
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)		
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)		
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)		201/2
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ- 95)	AT	OND
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		10.
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)		
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)		
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)		
	9173	2,2',3-Trichlorobiphenyl (BZ-16)		
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)		
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyto	Method Code	Description
watrix reference	Code	Analyte 154)	Code	Description
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-		THE REAL PROPERTY.
		99)	30	0-30
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ- 155)	The No.	OGN
	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)		
	9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)		13/10/10
	8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)		
	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		
	9179	2,2',4,5',6-Pentachlorobiphenyl (BZ- 103)		
	9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)		
	8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		
	9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)		
	9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)		
	9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)		A / /2/
	9185	2,2',4-Trichlorobiphenyl (BZ-17)		
	8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)		A 1/5/
	9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)		
	8930	2,2',5-Trichlorobiphenyl (BZ-18)		21 0
	9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)	ATT	ON
	9188	2,2',6-Trichlorobiphenyl (BZ-19)	4 1 1	0
	9189	2,2'-Dichlorobiphenyl (BZ-4)		
	9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)		
	9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)		
	9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)		
	9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		
	9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
		156)		THE PARTY
	9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ- 157)	FC	0-
	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)		GA
	8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)		OGN
	9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)		
	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)		
	9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)		
	9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ- 162)		
	9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)		
	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ- 163)		
	9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ-164)		
	9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ- 161)		
	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ- 106)		0
	9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)	AT	OND
	9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)		-
	9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		
	9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)		
	8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)		
	9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)		
	9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		







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/latrix	Reference	Analyte Code	Analyte	Method Code	Description
THE IA		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ-		
			165)		THE REAL PROPERTY.
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ- 111)	EC	OGN
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ- 112)		
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ- 113)		
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)		
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)		
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 167)		
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ- 166)		
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ- 168)		
		9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)		MI . E
		8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)		
		9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ- 123)		
		9219	2,3,4,4',6-Pentachlorobiphenyl (BZ- 115)	AL	ONB
		9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)	ALL	Old
		9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)		
		8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)		
		9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)		
		9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)		
		9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)		
		9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyto	Method Code	Description
wattix Reference	Code	Analyte 117)		Description
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-	-	THE REAL PROPERTY.
		121)		0-
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)	-	OGN
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)		
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)		
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)		
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)		
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)		
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)		
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)		
	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)		
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)		
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)		
	9238	2,3,4-Trichlorobiphenyl (BZ-21)		
	9241	2,3,4'-Trichlorobiphenyl (BZ-22)		
	9240	2,3',4-Trichlorobiphenyl (BZ-25)		
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)		2/6/
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)		
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		00 //6/
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		ON
	8935	2,3',5-Trichlorobiphenyl (BZ-26)		01
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)	A.A.B	
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		
	8920	2,3-Dichlorobiphenyl (BZ-5)		
	9249	2,3'-Dichlorobiphenyl (BZ-6)		
	9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)		
	9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)		
	9252	2,4,4'-Trichlorobiphenyl (BZ-28)		
	9253	2,4,5-Trichlorobiphenyl (BZ-29)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	8940	2,4',5-Trichlorobiphenyl (BZ-31)		工程 程度
	9254	2,4,6-Trichlorobiphenyl (BZ-30)	20	
	9255	2,4',6-Trichlorobiphenyl (BZ-32)	EU	.00
	9257	2,4-Dichlorobiphenyl (BZ-7)		OGN
	9256	2,4'-Dichlorobiphenyl (BZ-8)		
	9258	2,5-Dichlorobiphenyl (BZ-9)		
	9259	2,6-Dichlorobiphenyl (BZ-10)		
	8915	2-Chlorobiphenyl (BZ-1)		
	9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		0 5
	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ- 126)		
	8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
	9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ- 127)		
	9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
	9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
	9263	3,3',4-Trichlorobiphenyl (BZ-35)		
	9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
	9265	3,3',5-Trichlorobiphenyl (BZ-36)		
	8925	3,3'-Dichlorobiphenyl (BZ-11)		
	8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		00/6/
	9266	3,4,4'-Trichlorobiphenyl (BZ-37)		ONPO
	9267	3,4,5-Trichlorobiphenyl (BZ-38)		
	9268	3,4',5-Trichlorobiphenyl (BZ-39)	ALA	
	9270	3,4-Dichlorobiphenyl (BZ-12)		
	9269	3,4'-Dichlorobiphenyl (BZ-13)		
	9271	3,5-Dichlorobiphenyl (BZ-14)		
	9272	3-Chlorobiphenyl (BZ-2)		
	9273	4,4'-Dichlorobiphenyl (BZ-15)		
	9274	4-Chlorobiphenyl (BZ-3)		
	9105	Decachlorobiphenyl (BZ-209)		
	8876	Total Dichlorobiphenyls		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

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/latrix	Reference	Analyte Code	Analyte	Method Code	Description
natiix	Reference	8877			
		8888	Total Hexachlorobiphenyls	-	The state of the s
		8889	Total Monochlorobiphenyls	3 0	0-
		8891	Total Nonachlorobiphenyls		OGN
		8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 1668C			10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		180 8
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)	ΔΤΙ	ON
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ- 128)	A.I.B.	THEFT
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		







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Matrix Reference	Analyte	Analyte	Method Code	Description
watiik iveletelice	9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl		
	J. 1. 1	(BZ-200)		THE REAL PROPERTY.
	9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)	EC	OGN
	9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
	9115	2, 2 ',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ- 129)		
	9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ- 130)		
	9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		
	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ- 131)		
	9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)		
	9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)		69/3/
	9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		-118
	9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)	AT	Oly
	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ- 133)		
	9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		
	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-134)		
	9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)		
	9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)		
	9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)	EC	OGN
	9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)		41,
	9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)		
	9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)		
	9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)		OF
	9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)		
	9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)		
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)		
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ- 137)		
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)		
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)		
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ- 139)		00/5
	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ- 140)	AT	ONDE
	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)	AL	
	9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)		
	9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)		
	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)		
	9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ-146)		
	9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
- Matrix Reference		(BZ-186)		
	9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)	FC	OGN
	9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ- 142)	lim %	GA
	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ- 143)		
	9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)		
	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ- 147)		OF
	9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ- 148)		
	9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ- 149)		
	9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)		
	8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)		
	9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)		
	9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)		
	9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)		
	9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ- 150)		ONB
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)	4 6	
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)	ALL	THE REAL PROPERTY.
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)		
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)		
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)		
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)		
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ-151)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ- 92)		
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)	E	OGN
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)		4/1/
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)		
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ- 95)		
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ- 96)		
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)		
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)		
	9173	2,2',3-Trichlorobiphenyl (BZ-16)		
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ-153)		
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ- 154)		
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)		5/8
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ- 155)		20/5
	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)	АТ	OND
	9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)	AI	
	8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)		
	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		
	9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)		
	9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)		
	8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		
	9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)		







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/latrix Referenc	Analyte e Code	Analyte	Method Code	Description
	9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)		A REAL PROPERTY AND ADDRESS OF THE PARTY AND A
	9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)	E	0
	9185	2,2',4-Trichlorobiphenyl (BZ-17)	13	UC.
	8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)		OGN
	9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)		
	8930	2,2',5-Trichlorobiphenyl (BZ-18)		
	9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)		
	9188	2,2',6-Trichlorobiphenyl (BZ-19)		
	9189	2,2'-Dichlorobiphenyl (BZ-4)		
	9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)		
	9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)		
	9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)		
	9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		
	9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ- 156)		
	9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ- 157)		5
	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)		201/5
	8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)	AT	OND
	9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)	AI	
	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)		
	9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)		
	9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)		
	9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)		
	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ-		







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Matrix	Reference	Analyte Code	Analyte	Method Code	Description
			163)		
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ- 164)	FC	OGN
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ- 161)		GA
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)		
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ- 107)		
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ- 108)		OF
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)		
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ- 110)		
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)		
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ- 165)		
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ- 111)		S / 5
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)		180 6
		9212	2,3,3',5',6-Pentachlorobiphenyl (BZ- 113)	AT	ON
		9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)	A.E.H	
		9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		
		9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		
		9216	2,3,3'-Trichlorobiphenyl (BZ-20)		
		9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 167)		
		9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)		
		9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)		







Vista Analytical Laboratory Inc.

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Matrix Reference	Analyte Code	Analyte	Method Code	Description	
	9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)		HRR	
	8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)	EC	00	
	9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)		OG	-
	9219	2,3,4,4',6-Pentachlorobiphenyl (BZ- 115)			
	9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)			
	9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)			
	8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)			
	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)			
	9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)			
	9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)			
	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)			
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)			
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)			
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)			
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)	AL HIPT		
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)		In.	
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)			
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)			
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)			
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)			
	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)			
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)			
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)			
	9238	2,3,4-Trichlorobiphenyl (BZ-21)			







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/latrix Reference	Analyte	Analyte	Method Code	Description
Matrix Reference	9241	2,3,4'-Trichlorobiphenyl (BZ-22)	Code	Description
	9240	2,3',4-Trichlorobiphenyl (BZ-25)	_	THE STATE OF THE S
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)	FIG	0-90
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)	Ber Ve	CEA
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		OGN
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		
	8935	2,3',5-Trichlorobiphenyl (BZ-26)		
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)		
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		
	8920	2,3-Dichlorobiphenyl (BZ-5)		
	9249	2,3'-Dichlorobiphenyl (BZ-6)		
	9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)		
	9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)		
	9252	2,4,4'-Trichlorobiphenyl (BZ-28)		
	9253	2,4,5-Trichlorobiphenyl (BZ-29)		
	8940	2,4',5-Trichlorobiphenyl (BZ-31)		
	9254	2,4,6-Trichlorobiphenyl (BZ-30)		
	9255	2,4',6-Trichlorobiphenyl (BZ-32)		
	9257	2,4-Dichlorobiphenyl (BZ-7)		00/3/
	9256	2,4'-Dichlorobiphenyl (BZ-8)		-010/0
	9258	2,5-Dichlorobiphenyl (BZ-9)	ATI	014
	9259	2,6-Dichlorobiphenyl (BZ-10)	اللتم	
	8915	2-Chlorobiphenyl (BZ-1)		
	9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		
	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		
	8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
	9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-127)		
	9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		



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rix Reference	Analyte Code	Analyte	Method Code	Description
	9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		LIE OF STREET
	9263	3,3',4-Trichlorobiphenyl (BZ-35)	-	- 480
	9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)	3 0	00
	9265	3,3',5-Trichlorobiphenyl (BZ-36)		OGN
	8925	3,3'-Dichlorobiphenyl (BZ-11)		
	8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
	9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
	9267	3,4,5-Trichlorobiphenyl (BZ-38)		
	9268	3,4',5-Trichlorobiphenyl (BZ-39)		
	9270	3,4-Dichlorobiphenyl (BZ-12)		
	9269	3,4'-Dichlorobiphenyl (BZ-13)		
	9271	3,5-Dichlorobiphenyl (BZ-14)		
	9272	3-Chlorobiphenyl (BZ-2)		
	9273	4,4'-Dichlorobiphenyl (BZ-15)		
	9274	4-Chlorobiphenyl (BZ-3)		
	9105	Decachlorobiphenyl (BZ-209)		
	8876	Total Dichlorobiphenyls		
	8877	Total Heptachlorobiphenyls		
	8888	Total Hexachlorobiphenyls		
	8889	Total Monochlorobiphenyls		
	8891	Total Nonachlorobiphenyls		60/3/
	8892	Total Octachlorobiphenyls		-010/67
	8896	Total Pentachlorobiphenyls	ATI	Oly
	8893	Total Tetrachlorobiphenyls		
	8894	Total Trichlorobiphenyls		
EPA 1699			10133105	Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS
	8580	2,4'-DDD		
	8585	2,4'-DDE		
	8590	2,4'-DDT		
	7355	4,4'-DDD		
	7360	4,4'-DDE		



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x Reference	Analyte Code	Analyte	Method Code	Description
	7365	4,4'-DDT		THE REAL PROPERTY.
	7005	Alachlor	-	
	7025	Aldrin	130	00
	7110	alpha-BHC (alpha- Hexachlorocyclohexane)		OGN
	7115	beta-BHC (beta- Hexachlorocyclohexane)		
	7240	cis-chlordane (alpha-Chlordane)		13.00
	7925	cis-Nonachlor		
	7105	delta-BHC		
	7470	Dieldrin		
	7510	Endosulfan I		
	7515	Endosulfan II		
	7520	Endosulfan sulfate		
	7540	Endrin		
	7530	Endrin aldehyde		
	7535	Endrin ketone		
	7120	gamma-BHC (Lindane, gamma- HexachlorocyclohexanE)		
	7245	gamma-Chlordane		
	7685	Heptachlor		
	7690	Heptachlor epoxide		00//5/
	6275	Hexachlorobenzene		- NIP
	4835	Hexachlorobutadiene	/ To 16	01/2
	7810	Methoxychlor		
	7870	Mirex		
	3890	Oxychlordane		
	7910	trans-Nonachlor		
EPA 8280A			10186808	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
	9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		







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atrix Reference	Analyte Code	Analyte	Method Code	Description
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		THE REAL PROPERTY.
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)	EC	00.
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		OGN
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		CE
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		450 1/3/
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		ON B
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total	ALL	
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA			10187005	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated







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late!	Deference	Analyte	Analyta	Method	Description
natrix	Reference 8280B	Code	Analyte	Code	Description Dibenzofurans by GC/HRMS
	02000	9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	FC	
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p- dioxin (OCDD)	Bar N	OGN
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		0 1
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		5
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		20/5
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	AT	OND
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		
		9555	Pecdd, total		



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ix	Reference	Analyte Code	Analyte	Method Code	Description
		9552	Pecdf, total		
		9609	TCDD, total		0
		9615	TCDF, total		·UC
	EPA 8290		9	10187209	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p- dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		- S [5]
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		-NB
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)	AT	Old
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		WE WE WE
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		



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lotvisy	Deference	Analyte	Analyte	Method	Description
latrix	Reference	9438	Analyte Hpcdd, total	Code	Description
			I podf total		
		9444	Hpcdf, total	EC	0
		9468	Hxcdd, total		UC
		9483	Hxcdf, total		OGN
		9555	Pecdd, total		
		9552			
		9609	TCDD, total		
	/	9615	TCDF, total		
	EPA 8290A			10187403	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		5/5
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		00/5
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	ATI	ONVE
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)	ALA	
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		



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As of 2/8/2022 this list supersedes all previous lists for this certificate number.

latrix Reference	Analyte Code	Analyte	Method Code	Description
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	EC	OGN
	9612	2,3,7,8-Tetrachlorodibenzofuran		GA.
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
VAL SOP 49 24			60048524	Vista Analytical Laboratory - Per- and Poly-fluorinated Compounds by Isotope Dilution
	9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)		
	6948	1H, 1H, 2H, 2H- Perfluorodecanesulfonic acid (8:2 FTS)		
	9616	1H, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS)		5
	6946	1H, 1H, 2H, 2H- Perfluorohexanesulfonic acid (4:2 FTS)		-11BO
	6947	1H, 1H, 2H, 2H- Perfluorooctanesulfonic acid (6:2 FTS)	411	Old
	9340	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)		
	9338	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)		
	9353	4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)		
	6951	4,8-Dioxa-3H-perfluorononanoic acid (DONA)		
	6952	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)		
	9395	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	EC	OGN
	9431	N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)		GIV.
	4846	N- Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		
	4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)		10
	6949	N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)		
	9433	N-Methylperfluorooctanesulfonamide (MeFOSA)		
	6956	Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)		
	6957	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
	6965	Perfluoro-3-methoxypropanoic acid (PFMPA)		
	6966	Perfluoro-4-methoxybutanoic acid (PFMBA)		
	6918	Perfluorobutane sulfonic acid (PFBS)		
	6915	Perfluorobutanoic acid (PFBA)		00//5/
	6920	Perfluorodecane sulfonic acid (PFDS)		CALP
	6905	Perfluorodecanoic acid (PFDA)	ATE	
	6923	Perfluorododecane sulfonic acid	ALA	
	6903	Perfluorododecanoic acid (PFDoA)		
	9470	Perfluoroheptane sulfonic acid (PFHpS)		
	6908	Perfluoroheptanoic acid (PFHpA)		
	6901	Perfluorohexadecanoic acid (PFHxDA)		
	6927	Perfluorohexane sulfonic acid (PFHxS)		
	6913	Perfluorohexanoic acid (PFHxA)		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation

Method



Vista Analytical Laboratory Inc.

Analyte

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rix	Reference	Code	Analyte	Code	Description
		6929	Perfluorononane sulfonic acid (PFNS)		LERE
		6906	Perfluorononanoic acid (PFNA)	-	1000
		6916	Perfluorooctadecanoic acid (PFODA)	EU	00
		6917	Perfluorooctane sulfonamide (PFOSAm)		OGN
		6931	Perfluorooctane sulfonic acid (PFOS)		
		6912	Perfluorooctanoic acid (PFOA)		
		6934	Perfluoropentane sulfonic acid (PFPeS)		
		6914	Perfluoropentanoic acid (PFPeA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic acid (PFTrDA)		
		6904	Perfluoroundecanoic acid (PFUnA)		
		6899	Potassium perfluoro-4- ethylcyclohexanesulfonate (PFecHS)		
		6898	Sodium perfluoro-1-propanesulfonate (PFPrS)		
ink	king Wa	ter			
	EPA 1613		P	10120408	Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	EPA 1613B		TEDIT	10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	ALL	Old
	EPA 533		The same of the sa	10091619	Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Istope Dilution Anion Exchange Soid Phase Extraction and Liquid Chromotography/Tandem Mass Spectrometry
		9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)		
		6948	1H, 1H, 2H, 2H- Perfluorodecanesulfonic acid (8:2 FTS)		
		6946	1H, 1H, 2H, 2H- Perfluorohexanesulfonic acid (4:2		



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Vista Analytical Laboratory Inc.

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ix	Reference	Analyte Code	Analyte	Method Code	Description
			FTS)		The second second
		6947	1H, 1H, 2H, 2H- Perfluorooctanesulfonic acid (6:2 FTS)	EC	0-
		6951	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	-	GN
		6952	9-chlorohexadecafluoro-3-oxanone-1- sulfonic acid (9CI-PF3ONS)		
		9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)		
		6956	Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)		OF
		6957	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
		6965	Perfluoro-3-methoxypropanoic acid (PFMPA)		
		6966	Perfluoro-4-methoxybutanoic acid (PFMBA)		
		6918	Perfluorobutane sulfonic acid (PFBS)		
		6915	Perfluorobutanoic acid (PFBA)		
		6905	Perfluorodecanoic acid (PFDA)		
		6903	Perfluorododecanoic acid (PFDoA)		
		9470	Perfluoroheptane sulfonic acid (PFHpS)		S 15
		6908	Perfluoroheptanoic acid (PFHpA)		0.00
		6927	Perfluorohexane sulfonic acid (PFHxS)		and
		6913	Perfluorohexanoic acid (PFHxA)	ATI	
		6906	Perfluorononanoic acid (PFNA)	A.I.R.	
		6931	Perfluorooctane sulfonic acid (PFOS)		
		6912	Perfluorooctanoic acid (PFOA)		
		6934	Perfluoropentane sulfonic acid (PFPeS)		
		6914	Perfluoropentanoic acid (PFPeA)		
		6904	Perfluoroundecanoic acid (PFUnA)		
	EPA 537 1.1				Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS
		4846	N-		



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atrix	Reference	Analyte Code	Analyte	Method Code	Description
			Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		THE REAL PROPERTY.
		4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EC	OGN
		6918	Perfluorobutane sulfonic acid (PFBS)		9/1
		6905	Perfluorodecanoic acid (PFDA)		
		6903	Perfluorododecanoic acid (PFDoA)		
		6908	Perfluoroheptanoic acid (PFHpA)		
		6927	Perfluorohexane sulfonic acid (PFHxS)		
		6913	Perfluorohexanoic acid (PFHxA)		
		6906	Perfluorononanoic acid (PFNA)		
		6909	Perfluorooctane sulfonate (PFOS)		
		6931	Perfluorooctane sulfonic acid (PFOS)		
		6912	Perfluorooctanoic acid (PFOA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic acid (PFTrDA)		
		6904	Perfluoroundecanoic acid (PFUnA)		
	EPA 537.1 1.0			10091642	Per- and Polyfluorinated Alkyl Substances in Drinking Water by LC/MS/MS
		9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11CI-PF3OUdS)		0/5
		6951	4,8-Dioxa-3H-perfluorononanoic acid (DONA)		20/5
		6952	9-chlorohexadecafluoro-3-oxanone-1- sulfonic acid (9CI-PF3ONS)	ΔΤΙ	ON
		9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)	ALB	THEFT
		4846	N- Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		
		4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)		
		6918	Perfluorobutane sulfonic acid (PFBS)		
		6905	Perfluorodecanoic acid (PFDA)		
		6903	Perfluorododecanoic acid (PFDoA)		



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trix	Reference	Analyte Code	Analyte	Method Code	Description
		6908	Perfluoroheptanoic acid (PFHpA)		LEGICA
		6927	Perfluorohexane sulfonic acid (PFHxS)	-	
		6913	Perfluorohexanoic acid (PFHxA)	E	00
		6906	Perfluorononanoic acid (PFNA)		GA.
		6931	Perfluorooctane sulfonic acid (PFOS)		
		6912	Perfluorooctanoic acid (PFOA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic acid (PFTrDA)		
		6904	Perfluoroundecanoic acid (PFUnA)		
	ISO 25101			60030479	Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography /Mass Spectrometry
		6918	Perfluorobutane sulfonic acid (PFBS)		
		6908	Perfluoroheptanoic acid (PFHpA)		
		6901	Perfluorohexadecanoic acid (PFHxDA)		
		6927	Perfluorohexane sulfonic acid (PFHxS)		
		6913	Perfluorohexanoic acid (PFHxA)		
		6906	Perfluorononanoic acid (PFNA)		A S
		6916	Perfluorooctadecanoic acid (PFODA)		
		6917	Perfluorooctane sulfonamide (PFOSAm)		
		6931	Perfluorooctane sulfonic acid (PFOS)		-010
		6912	Perfluorooctanoic acid (PFOA)	ATI	ON
		6914	Perfluoropentanoic acid (PFPeA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic acid (PFTrDA)		
		6904	Perfluoroundecanoic acid (PFUnA)		
	VAL SOP 49 24			60048524	Vista Analytical Laboratory - Per- and Poly-fluorinated Compound by Isotope Dilution
		9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11CI-PF3OUdS)		
		6948	1H, 1H, 2H, 2H- Perfluorodecanesulfonic acid (8:2 FTS)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9616	1H, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS)	F	LEE ESTATE OF THE PARTY OF THE
	6946	1H, 1H, 2H, 2H- Perfluorohexanesulfonic acid (4:2 FTS)	E	OGN
	6947	1H, 1H, 2H, 2H- Perfluorooctanesulfonic acid (6:2 FTS)		
	9340	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)		
	9338	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)		OF
	9353	4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)		
	6951	4,8-Dioxa-3H-perfluorononanoic acid (DONA)		
	6952	9-chlorohexadecafluoro-3-oxanone-1- sulfonic acid (9CI-PF3ONS)		
	9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)		
	9395	N-Ethylperfluorooctane sulfonamide (EtFOSAm)		
	9431	N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)		5
	4846	N- Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		-1180
	4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	AT	Ola
	6949	N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)		
	9433	N-Methylperfluorooctanesulfonamide (MeFOSA)		
	6956	Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)		
	6957	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
	6965	Perfluoro-3-methoxypropanoic acid (PFMPA)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	6966	Perfluoro-4-methoxybutanoic acid (PFMBA)		I R.R. R. R
	6918	Perfluorobutane sulfonic acid (PFBS)	F	0-90
	6915	Perfluorobutanoic acid (PFBA)		OC.
	6920	Perfluorodecane sulfonic acid (PFDS)		OGN
	6905	Perfluorodecanoic acid (PFDA)		
	6923	Perfluorododecane sulfonic acid (PFDoS)		S Total
	6903	Perfluorododecanoic acid (PFDoA)		
	9470	Perfluoroheptane sulfonic acid (PFHpS)		
	6908	Perfluoroheptanoic acid (PFHpA)		
	6901	Perfluorohexadecanoic acid (PFHxDA)		
	6927	Perfluorohexane sulfonic acid (PFHxS)		
	6913	Perfluorohexanoic acid (PFHxA)		
	6929	Perfluorononane sulfonic acid (PFNS)		
	6906	Perfluorononanoic acid (PFNA)		
	6916	Perfluorooctadecanoic acid (PFODA)		A 29
	6917	Perfluorooctane sulfonamide (PFOSAm)		
	6931	Perfluorooctane sulfonic acid (PFOS)		
	6912	Perfluorooctanoic acid (PFOA)		-183
	6934	Perfluoropentane sulfonic acid (PFPeS)	ATI	ON
	6914	Perfluoropentanoic acid (PFPeA)	ALL	
	6902	Perfluorotetradecanoic acid (PFTDA)		
	9563	Perfluorotridecanoic acid (PFTrDA)		
	6904	Perfluoroundecanoic acid (PFUnA)		
	6899	Potassium perfluoro-4- ethylcyclohexanesulfonate (PFecHS)		
	6898	Sodium perfluoro-1-propanesulfonate (PFPrS)		

Non-Potable Water







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Matriv	Reference	Analyte	Analyte	Method Code	Description
naulik	EPA		Analyte		Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope
	1613B		1000		Dilution GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	EC	00.
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		8/8/
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		-118
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	ATI	Ola
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		







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atrix	Reference	Analyte Code	Analyte	Method Code	Description
		9555	Pecdd, total		A R. O. W.
		9552	Pecdf, total	-	The state of the s
		9609	TCDD, total	E	00
		9615	TCDF, total	Accessed to the con-	GA.
	EPA 1614A 1			10120704	Brominated Diphenyl Ethers by HRGC/HRMS
		9902	2,2',3,3',4,4',5,5',6- Nonabromodiphenyl ether (BDE-206)		
		9903	2,2',3,3',4,4',5,6,6'- Nonabromodiphenyl ether (BDE-207)		0 1
		9892	2,2',3,3',4,4',5,6'-Octabromodiphenyl ether (BDE-196)		
		9893	2,2',3,3',4,4',6,6'-Octabromodiphenyl ether (BDE-197)		
		9825	2,2',3,3',4,4'-Hexabromodiphenyl ether (BDE-128)		
		9904	2,2',3,3',4,5,5',6,6'- Nonabromodiphenyl ether (BDE-208)		
		9896	2,2',3,3',4,5,6,6'-Octabromodiphenyl ether (BDE-200)		
		9897	2,2',3,3',4,5',6,6'-Octabromodiphenyl ether (BDE-201)		
		9871	2,2',3,3',4,5',6-Heptabromodiphenyl ether (BDE-175)		
		9873	2,2',3,3',4',5,6-Heptabromodiphenyl ether (BDE-177)	AL -0-1	ONB
		9872	2,2',3,3',4,6,6'-Heptabromodiphenyl ether (BDE-176)	ALI	O. Sans
		9874	2,2',3,3',5,5',6-Heptabromodiphenyl ether (BDE-178)		
		9899	2,2',3,4,4',5,5',6-Octabromodiphenyl ether (BDE-203)		
		9876	2,2',3,4,4',5,5'-Heptabromodiphenyl ether (BDE-180)		
		9900	2,2',3,4,4',5,6,6'-Octabromodiphenyl ether (BDE-204)		
		9877	2,2',3,4,4',5,6-Heptabromodiphenyl		







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latrix Reference	Analyte	Analyte	Method Code	Description
latrix Reference	Code	ether (BDE-181)	Code	Description
	9879	2,2',3,4,4',5',6-Heptabromodiphenyl ether (BDE-183)	EC	OGNIS
	9835	2,2',3,4,4',5'-Hexabromodiphenyl ether (BDE-138)		GA
	9880	2,2',3,4,4',6,6'-Heptabromodiphenyl ether (BDE-184)		
	9836	2,2',3,4,4',6-Hexabromodiphenyl ether (BDE-139)		
	9837	2,2',3,4,4',6'-Hexabromodiphenyl ether (BDE-140)		OB
	9784	2,2',3,4,4'-Pentabromodiphenyl ether (BDE-85)		
	9845	2,2',3,4',5,6'-Hexabromodiphenyl ether (BDE-148)		
	9569	2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE-153)		
	9850	2,2',4,4',5',6-Hexabromodiphenyl ether (BDE-154)		
	9571	2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)		
	9851	2,2',4,4',6,6'-Hexabromodiphenyl ether (BDE-155)		5/5
	9572	2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)		00/5/
	9773	2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)	ΛТ	ONDE
	9747	2,2',4,5'-Tetrabromodiphenyl ether (BDE-49)	ALA	THE REAL PROPERTY.
	9749	2,2',4,6'-Tetrabromodiphenyl ether (BDE-51)		
	9716	2,2',4-Tribromodiphenyl ether (BDE- 17)		
	9867	2,2'3,3',4,4',6-Heptabromodiphenyl ether (BDE-171)		
	9901	2,3,3',4,4',5,5',6-Octabromodiphenyl ether (BDE-205)		
	9886	2,3,3',4,4',5,6-Heptabromodiphenyl		







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Matriy	Reference	Analyte	Analyte	Method Code	Description
IVIALITIX	Reference	Code	ether (BDE-190)	Code	Description
		9887	2,3,3',4,4',5',6-Heptabromodiphenyl ether (BDE-191)	EC	O-WAR
		9852	2,3,3',4,4',5-Hexabromodiphenyl ether (BDE-156)	llan %	OGN
		9802	2,3,3',4,4'-Pentabromodiphenyl ether (BDE-105)		
		9862	2,3,4,4',5,6-Hexabromodiphenyl ether (BDE-166)		
		9815	2,3',4,4',5-Pentabromodiphenyl ether (BDE-118)		OF
		9816	2,3',4,4',6-Pentabromodiphenyl ether (BDE-119)		
		9764	2,3',4,4'-Tetrabromodiphenyl ether (BDE-66)		
		9817	2,3',4,5,5'-Pentabromodiphenyl ether (BDE-120)		
		9813	2,3,4,5,6-Pentabromodiphenyl ether (BDE-116)		
		9769	2,3',4',6-Tetrabromodiphenyl ether (BDE-71)		
		9720	2,3,4-Tribromodiphenyl ether (BDE-21)		5/8
		9724	2,3',4-Tribromodiphenyl ether (BDE- 25)		00/5
		9732	2',3,4-Tribromodiphenyl ether (BDE- 33)	АТ	ONDE
		9774	2,4,4',6-Tetrabromodiphenyl ether (BDE-75)	ALE	
		9727	2,4,4'-Tribromodiphenyl ether (BDE- 28)		
		9729	2,4,6-Tribromodiphenyl ether (BDE-30)		
		9731	2,4',6-Tribromodiphenyl ether (BDE-32)		
		9706	2,4-Dibromodiphenyl ether (BDE-7)		
		9707	2,4'-Dibromodiphenyl ether (BDE-8)		



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atrix	Reference	Analyte Code	Analyte	Method Code	Description
		9709	2,6-Dibromodiphenyl ether (BDE-10)		LILE IN
		9700	2-Monobromodiphenyl ether (BDE-1)	-	- 400
		9865	3,3',4,4',5,5'-Hexabromodiphenyl ether (BDE-169)	EC	OGN
		9823	3,3',4,4',5-Pentabromodiphenyl ether (BDE-126)		
		9776	3,3',4,4'-Tetrabromodiphenyl ether (BDE-77)		
		9778	3,3',4,5'-Tetrabromodiphenyl ether (BDE-79)		
		9734	3,3',4-Tribromodiphenyl ether (BDE- 35)		
		9710	3,3'-Dibromodiphenyl ether (BDE-11)		
		9736	3,4,4'-Tribromodiphenyl ether (BDE- 37)		
		9711	3,4-Dibromodiphenyl ether (BDE-12)		
		9712	3,4'-Dibromodiphenyl ether (BDE-13)		
		9701	3-Monobromodiphenyl ether (BDE-2)		
		9714	4,4'-Dibromodiphenyl ether (BDE-15)		
		5660	4-Bromophenyl phenyl ether (BDE-3)		
		9905	Decabromodiphenyl ether (BDE-209)		
	EPA 1668A	1/	Co	10262029	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)	All region (ONB
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)	ALL	O'C
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)	-	MRA
	9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ- 128)	E	OG
	9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		~
	9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
	9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
	9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		
	9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
	9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
	9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
	9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ- 129)		Ma
	9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)	AT	010
	9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		
	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ-131)		
	9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ-132)		
	9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)		
	9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)	-	LERES
	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)	EC	OG
	9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		
	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ- 134)		
	9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ- 135)		
	9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)		
	9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ- 136)		
	9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)		
	9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)		
	9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)		
	9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)		
	9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)		
	9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)		-11
	9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)	AT	01/1
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)	ALB	THEFT
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ- 137)		
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)		
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)		
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)		







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/latriv	Reference	Analyte Code	Analyte	Method Code	Description
nati ix	TROTOTOTICO	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-		
			140)		THE REAL PROPERTY.
		9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)	EC	OGN
		9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)		
		9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)		
		9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ- 141)		
		9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ- 146)		
		9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)		
		9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)		
		9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ- 142)		
		9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ- 143)		
		9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)		
		9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ- 147)		10 /5/
		9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ- 148)		- N B
		9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ- 149)	AT	Oly
		9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)		
		8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)		
		9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)		
		9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)		
		9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ- 145)		
		9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyte	Method Code	Description
wallix Reference	Code	150)		
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)		THE STATE OF THE S
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)	EC	OGN
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)		
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)		
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)		
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)		
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ- 151)		
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)		
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)		
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)		
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)		
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)		
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		450//2/
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)		SN B
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)	ATE	
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)	但其用	
	9173	2,2',3-Trichlorobiphenyl (BZ-16)		
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ- 153)		
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ- 154)		
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)		
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ- 155)		







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/latrix	Reference	Analyte Code	Analyte	Method Code	Description
		9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)		LEGIE .
		9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)	EC	0
		8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)	Sim No.	UGA,
		9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		OGN
		9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)		
		9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)		
		8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		
		9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ- 104)		
		9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)		
		9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)		
		9185	2,2',4-Trichlorobiphenyl (BZ-17)		
		8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)		
		9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)		
		8930	2,2',5-Trichlorobiphenyl (BZ-18)		
		9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)		A /5/
		9188	2,2',6-Trichlorobiphenyl (BZ-19)		
		9189	2,2'-Dichlorobiphenyl (BZ-4)		
		9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)		ON B
		9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)	ATT	Ola
		9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)		
		9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		
		9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)		
		9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ-157)		
		9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)		







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Matrix R	Reference	Analyte Code	Analyte	Method Code	Description
		8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)		THE REAL PROPERTY.
		9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)	EC	OGN
		9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)		9/1/
		9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)		
		9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ- 162)		
		9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)		E
		9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ- 163)		
		9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ- 164)		
		9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ- 161)		
		9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)		
		9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)		
		9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)		
		9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		-18
		9206	2,3,3',4,6-Pentachlorobiphenyl (BZ- 109)	AT	Old
		8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)		
		9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)		
		9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		
		9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ- 165)		
		9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)		
		9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)		OGN
	9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)	30	00
	9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		GA.
	9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		
	9216	2,3,3'-Trichlorobiphenyl (BZ-20)		
	9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 167)		
	9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ- 166)		0 1
	9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ- 168)		
	9005	2,3,4,4',5-Pentachlorobiphenyl (BZ- 114)		
	8995	2,3',4,4',5-Pentachlorobiphenyl (BZ- 118)		
	9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)		
	9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)		
	9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)		5
	9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)		
	8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)		100
	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ- 120)	ΔТ	ON
	9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)	ALL	THE REAL PROPERTY.
	9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)		
	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ-117)		
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ-121)		
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ-125)		
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)		E E E E E
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)	E	0
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)	EL	.00.
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)		OGN
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)		
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)		(8)
	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)		
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)		
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)		
	9238	2,3,4-Trichlorobiphenyl (BZ-21)		
	9241	2,3,4'-Trichlorobiphenyl (BZ-22)		
	9240	2,3',4-Trichlorobiphenyl (BZ-25)		
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)		
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)		
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		4 /5
	8935	2,3',5-Trichlorobiphenyl (BZ-26)		A 161
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)		S // /a/
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		00/16/
	8920	2,3-Dichlorobiphenyl (BZ-5)		ONLO
	9249	2,3'-Dichlorobiphenyl (BZ-6)	4 6	Ola
	9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)	从是用	
	9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)		
	9252	2,4,4'-Trichlorobiphenyl (BZ-28)		
	9253	2,4,5-Trichlorobiphenyl (BZ-29)		
	8940	2,4',5-Trichlorobiphenyl (BZ-31)		
	9254	2,4,6-Trichlorobiphenyl (BZ-30)		
	9255	2,4',6-Trichlorobiphenyl (BZ-32)		
	9257	2,4-Dichlorobiphenyl (BZ-7)		
	9256	2,4'-Dichlorobiphenyl (BZ-8)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9258	2,5-Dichlorobiphenyl (BZ-9)		· · · · · · · · · · · · · · · · · · ·
	9259	2,6-Dichlorobiphenyl (BZ-10)	20	- Carrier of the Carr
	8915	2-Chlorobiphenyl (BZ-1)	E	.00
	9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		OGN
	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ- 126)		
	8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
	9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ- 127)		0 1
	9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
	9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
	9263	3,3',4-Trichlorobiphenyl (BZ-35)		
	9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
	9265	3,3',5-Trichlorobiphenyl (BZ-36)		
	8925	3,3'-Dichlorobiphenyl (BZ-11)		
	8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
	9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
	9267	3,4,5-Trichlorobiphenyl (BZ-38)		A /5/
	9268	3,4',5-Trichlorobiphenyl (BZ-39)		
	9270	3,4-Dichlorobiphenyl (BZ-12)		
	9269	3,4'-Dichlorobiphenyl (BZ-13)		00//5/
	9271	3,5-Dichlorobiphenyl (BZ-14)		ONP
	9272	3-Chlorobiphenyl (BZ-2)	4 6	
	9273	4,4'-Dichlorobiphenyl (BZ-15)	A.E.R	
	9274	4-Chlorobiphenyl (BZ-3)		
	9105	Decachlorobiphenyl (BZ-209)		
	8876	Total Dichlorobiphenyls		
	8877	Total Heptachlorobiphenyls		
	8888	Total Hexachlorobiphenyls		
	8889	Total Monochlorobiphenyls		
	8891	Total Nonachlorobiphenyls		
	8892	Total Octachlorobiphenyls		







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trix	Reference	Analyte Code	Analyte	Method Code	Description
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls	-	
		8894	Total Trichlorobiphenyls	= 0	.00
	EPA 1668C		A. A.	10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2 ',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		OF
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		N A E
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ- 128)		
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		180 6
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)	ΔΤΙ	ON
		9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)	A.I.B	THUNKS
		9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		
		9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
		9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
		9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
	9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)	EC	OGN
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		9/1/
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ- 129)		
	9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)		
	9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		O E
	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ- 131)		
	9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ- 132)		
	9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)		
	9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		
	9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)		
	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)		69//3/
	9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		-18
	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ- 134)	AT	ON
	9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ-135)		
	9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)		
	9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)		
	9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)		
	9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)		
	9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl		







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Matrix Reference	Analyte	Analyte	Method Code	Description
matrix Reference	Code	(BZ-203)		Description
	9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)	FC	OGN
	9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)	lim %	GA
	9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)		
	9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)		
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)		OB
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ- 137)		
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ- 138)		
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)		
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ- 139)		
	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ- 140)		
	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)		5/8
	9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)		00/5
	9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)	ATI	ONDE
	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-141)	ALA	THE REAL PROPERTY.
	9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ- 146)		
	9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)		
	9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)		
	9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)		
	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
		143)		LIE WIND
	9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ- 144)	FC	OGN
	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ- 147)	The No.	GA,
	9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ- 148)		
	9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)		
	9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)		
	8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ- 87)		
	9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)		
	9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)		
	9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ- 145)		
	9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ- 150)		MI E
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)		
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)		
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)		180 6
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)	ΔΤΙ	ON
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)	从其具	
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)		
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ- 151)		
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)		
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)		
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)		
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyte	Method Code	Description
Wattix Reference	Code	94)		
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ- 95)	FC	OGN
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		UC.
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)		
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)		
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)		
	9173	2,2',3-Trichlorobiphenyl (BZ-16)		
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ- 153)		
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ- 154)		
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)		
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ-155)		
	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)		
	9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)		
	8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)		
	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		ON B
	9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)	ATT	Ola
	9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)		
	8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		
	9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)		
	9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)		
	9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)		
	9185	2,2',4-Trichlorobiphenyl (BZ-17)		
	8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)		
	9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	8930	2,2',5-Trichlorobiphenyl (BZ-18)		ERRE S
	9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)	E	0
	9188	2,2',6-Trichlorobiphenyl (BZ-19)	E	.UC.
	9189	2,2'-Dichlorobiphenyl (BZ-4)		- 4/1
	9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)		OGN
	9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)		
	9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)		OF
	9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		
	9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ- 156)		
	9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ- 157)		
	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)		
	8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ- 105)		
	9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)		5
	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)		00/5
	9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)	AT	ONDE
	9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)	A.L.	
	9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)		
	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ- 163)		
	9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ- 164)		
	9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ- 161)		
	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
		106)		LILEY IN
	9205	2,3,3',4',5-Pentachlorobiphenyl (BZ- 107)	FC	OGN
	9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)	lim %	GA
	9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		
	9206	2,3,3',4,6-Pentachlorobiphenyl (BZ- 109)		
	8990	2,3,3',4',6-Pentachlorobiphenyl (BZ- 110)		OF
	9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)		
	9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		
	9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ- 165)		
	9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ- 111)		
	9211	2,3,3',5,6-Pentachlorobiphenyl (BZ- 112)		
	9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)		
	9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)		
	9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		
	9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		0.00
	9216	2,3,3'-Trichlorobiphenyl (BZ-20)		OND
	9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 167)	AT	Ola
	9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ- 166)		
	9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ-168)		
	9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)		
	8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)		
	9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-	-	I Book
		115)	-	- 400
	9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)	E	OGN
	9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)		4/1/
	8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)		
	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)		
	9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ- 124)		101
	9225	2,3,4,5,6-Pentachlorobiphenyl (BZ- 116)		
	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ- 117)		
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ- 121)		
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ- 125)		
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)		
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)		A. //a/
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)		
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)		
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)		
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)		-18
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)	All super	ON
	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)		0
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)	CAN HOLD	
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)		
	9238	2,3,4-Trichlorobiphenyl (BZ-21)		
	9241	2,3,4'-Trichlorobiphenyl (BZ-22)		
	9240	2,3',4-Trichlorobiphenyl (BZ-25)		
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)		
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)		
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		A R.
	8935	2,3',5-Trichlorobiphenyl (BZ-26)	EC	OGN
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)		UC.
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		9/1/
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		
	8920	2,3-Dichlorobiphenyl (BZ-5)		
	9249	2,3'-Dichlorobiphenyl (BZ-6)		
	9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)		
	9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)		
	9252	2,4,4'-Trichlorobiphenyl (BZ-28)		
	9253	2,4,5-Trichlorobiphenyl (BZ-29)		
	8940	2,4',5-Trichlorobiphenyl (BZ-31)		
	9254	2,4,6-Trichlorobiphenyl (BZ-30)		
	9255	2,4',6-Trichlorobiphenyl (BZ-32)		
	9257	2,4-Dichlorobiphenyl (BZ-7)		
	9256	2,4'-Dichlorobiphenyl (BZ-8)		
	9258	2,5-Dichlorobiphenyl (BZ-9)		
	9259	2,6-Dichlorobiphenyl (BZ-10)		A 1/6/
	8915	2-Chlorobiphenyl (BZ-1)		9/8/
	9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		20/5
	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ- 126)	ATI	OND
	8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)	ATR	0.
	9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ- 127)		
	9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
	9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
	9263	3,3',4-Trichlorobiphenyl (BZ-35)		
	9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
	9265	3,3',5-Trichlorobiphenyl (BZ-36)		
	8925	3,3'-Dichlorobiphenyl (BZ-11)		
	8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



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x Reference	Analyte Code	Analyte	Method Code	Description
	9266	3,4,4'-Trichlorobiphenyl (BZ-37)		THE REAL PROPERTY.
	9267	3,4,5-Trichlorobiphenyl (BZ-38)	E	- Carlo
	9268	3,4',5-Trichlorobiphenyl (BZ-39)	13	OGN
	9270	3,4-Dichlorobiphenyl (BZ-12)		GA.
	9269	3,4'-Dichlorobiphenyl (BZ-13)		
	9271	3,5-Dichlorobiphenyl (BZ-14)		
	9272	3-Chlorobiphenyl (BZ-2)		
	9273	4,4'-Dichlorobiphenyl (BZ-15)		
	9274	4-Chlorobiphenyl (BZ-3)		
	9105	Decachlorobiphenyl (BZ-209)		
	8876	Total Dichlorobiphenyls		
	8877	Total Heptachlorobiphenyls		
	8888	Total Hexachlorobiphenyls		
	8889	Total Monochlorobiphenyls		
	8891	Total Nonachlorobiphenyls		
	8892	Total Octachlorobiphenyls		
	8896	Total Pentachlorobiphenyls		
	8893	Total Tetrachlorobiphenyls		
	8894	Total Trichlorobiphenyls		S / /2/
EPA 1699	1	Co.	10133105	Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS
	8580	2,4'-DDD		-010
	8585	2,4'-DDE	1 8	(0)
	8590	2,4'-DDT		
	7005	Alachlor		
	7925	cis-Nonachlor		
	7870	Mirex		
	3890	Oxychlordane		
	7910	trans-Nonachlor		
EPA 613			10105007	Dioxin by GC/HRMS
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		







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/latrix	Reference	Analyte Code	Analyte	Method Code	Description
	EPA		The state of the s		Polychlorinated Dibenzo-p-Dioxins and Polychlorinated
	8280A		(0.33)	-	Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	EC	06.
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		O E
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		8/8/
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		-018
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	ATT	Old
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran	ALC: NO.	
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		







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ix Re	eference	Analyte Code	Analyte	Method Code	Description
		9555	Pecdd, total		T. E. S. C.
		9552	Pecdf, total	E	-
		9609	TCDD, total	1=(0	.00
		9615	TCDF, total		GA.
	PA 280B			10187005	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		0 1
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofurar (1,2,3,4,6,7,8-hpcdf)	1	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofurar (1,2,3,4,7,8,9-hpcdf)	1	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)	A PROPERTY	ONB
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)	AI	0.
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxir (1,2,3,7,8-Pecdd)	n	
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

1104 Windfield Way El Dorado Hills, CA 95762 ORELAP ID: 4042 EPA CODE: CA00413 Certificate: 4042 - 021

Issue Date: 2/8/2022 Expiration Date: 2/7/2023

latrix	Reference	Analyte Code	Analyte	Method Code	Description
		9438	Hpcdd, total	H.H.H.	OGN
		9444	Hpcdf, total	E	A 420
		9468	Hxcdd, total	15	.00.
		9483	Hxcdf, total		UN,
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	EPA 8290			10187209	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofurar (1,2,3,4,6,7,8-hpcdf)	1	
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofurar (1,2,3,4,7,8,9-hpcdf)	1	
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		18
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)	AT	ON
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		THEFT
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxir (1,2,3,7,8-Pecdd)	1	



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

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Issue Date: 2/8/2022 Expiration Date: 2/7/2023

atrix	Reference	Analyte Code	Analyte	Method Code	Description
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran	-	The state of the s
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)	EC	OGN
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	EPA 8290A			10187403	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		5
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		20//5/
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	ATI	OND
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	ALA	0.000
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p-		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

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Issue Date: 2/8/2022 Expiration Date: 2/7/2023

/latrix	Reference	Analyte Code	Analyte	Method Code	Description
			dioxin (1,2,3,7,8,9-Hxcdd)		A R W Co
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)	EC	OGN
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	No.	· GA
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		
		9438	Hpcdd, total		
		9444	Hpcdf, total		
		9468	Hxcdd, total		
		9483	Hxcdf, total		
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	VAL SOP		-0	60048524	Vista Analytical Laboratory - Per- and Poly-fluorinated Compound
	49 24				by Isotope Dilution
		9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)		
		6948	1H, 1H, 2H, 2H- Perfluorodecanesulfonic acid (8:2 FTS)	ATI	ONB
		9616	1H, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS)	ALL	
		6946	1H, 1H, 2H, 2H- Perfluorohexanesulfonic acid (4:2 FTS)		
		6947	1H, 1H, 2H, 2H- Perfluorooctanesulfonic acid (6:2 FTS)		
		9340	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)		
		9338	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)		







Vista Analytical Laboratory Inc.

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Natriy	Reference	Analyte		Method Code	Description
іатгіх	Reference	9353	Analyte 4,4,5,5,6,6-Heptafluorohexanoic acid	Code	Description
		9333	(3:3 FTCA)	_	A R. R. R. S.
		6951	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	E	.00
		6952	9-chlorohexadecafluoro-3-oxanone-1- sulfonic acid (9CI-PF3ONS)		OGN
		9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)		
		9395	N-Ethylperfluorooctane sulfonamide (EtFOSAm)		
		9431	N-Ethylperfluorooctane sulfonamido ethanol (EtFOSE)		O E
		4846	N- Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		
		4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)		
		6949	N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)		
		9433	N-Methylperfluorooctanesulfonamide (MeFOSA)		
		6956	Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)		
		6957	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
		6965	Perfluoro-3-methoxypropanoic acid (PFMPA)	All migrat	ONB
		6966	Perfluoro-4-methoxybutanoic acid (PFMBA)	AI	IO.
		6918	Perfluorobutane sulfonic acid (PFBS)		
		6915	Perfluorobutanoic acid (PFBA)		
		6920	Perfluorodecane sulfonic acid (PFDS)		
		6905	Perfluorodecanoic acid (PFDA)		
		6923	Perfluorododecane sulfonic acid (PFDoS)		
		6903	Perfluorododecanoic acid (PFDoA)		
		9470	Perfluoroheptane sulfonic acid		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



Vista Analytical Laboratory Inc.

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As of 2/8/2022 this list supersedes all previous lists for this certificate number.

atrix	Reference	Analyte Code	Analyte	Method Code	Description
			(PFHpS)		T. B. St. St.
		6908	Perfluoroheptanoic acid (PFHpA)	-	- 400
		6901	Perfluorohexadecanoic acid (PFHxDA)	E	OGN
		6927	Perfluorohexane sulfonic acid (PFHxS)		
		6913	Perfluorohexanoic acid (PFHxA)		
		6929	Perfluorononane sulfonic acid (PFNS)		
		6906	Perfluorononanoic acid (PFNA)		/ [6]
		6916	Perfluorooctadecanoic acid (PFODA)		
		6917	Perfluorooctane sulfonamide (PFOSAm)		
		6931	Perfluorooctane sulfonic acid (PFOS)		
		6912	Perfluorooctanoic acid (PFOA)		
		6934	Perfluoropentane sulfonic acid (PFPeS)		
		6914	Perfluoropentanoic acid (PFPeA)		
		6902	Perfluorotetradecanoic acid (PFTDA)		
		9563	Perfluorotridecanoic acid (PFTrDA)		
		6904	Perfluoroundecanoic acid (PFUnA)		A E
		6899	Potassium perfluoro-4- ethylcyclohexanesulfonate (PFecHS)		0/5
		6898	Sodium perfluoro-1-propanesulfonate (PFPrS)		00/5/

Solids

EPA 1613			10120408	Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
EPA 1613B			10120602	Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS
	9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofurar	n	







Vista Analytical Laboratory Inc.

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As of 2/8/2022 this list supersedes all previous lists for this certificate number.

x Reference	Analyte Code	Analyte	Method Code D	escription
		(1,2,3,4,6,7,8-hpcdf)		LIFE
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)	FC	OGN
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)	Hart Von 1	GA
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		OF
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		N A B
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		15
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		180 5
	9612	2,3,7,8-Tetrachlorodibenzofuran	AL HOUSE	
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		

Department of Agriculture, Laboratory Division Department of Environmental Quality, Laboratory Division Oregon Health Authority, Public Health Division







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9902	2,2',3,3',4,4',5,5',6- Nonabromodiphenyl ether (BDE-206)		
	9903	2,2',3,3',4,4',5,6,6'- Nonabromodiphenyl ether (BDE-207)	EC	OGN
	9892	2,2',3,3',4,4',5,6'-Octabromodiphenyl ether (BDE-196)		
	9893	2,2',3,3',4,4',6,6'-Octabromodiphenyl ether (BDE-197)		
	9825	2,2',3,3',4,4'-Hexabromodiphenyl ether (BDE-128)		
	9904	2,2',3,3',4,5,5',6,6'- Nonabromodiphenyl ether (BDE-208)		
	9896	2,2',3,3',4,5,6,6'-Octabromodiphenyl ether (BDE-200)		
	9897	2,2',3,3',4,5',6,6'-Octabromodiphenyl ether (BDE-201)		
	9871	2,2',3,3',4,5',6-Heptabromodiphenyl ether (BDE-175)		
	9873	2,2',3,3',4',5,6-Heptabromodiphenyl ether (BDE-177)		
	9872	2,2',3,3',4,6,6'-Heptabromodiphenyl ether (BDE-176)		
	9874	2,2',3,3',5,5',6-Heptabromodiphenyl ether (BDE-178)		8/8/
	9899	2,2',3,4,4',5,5',6-Octabromodiphenyl ether (BDE-203)		-11B
	9876	2,2',3,4,4',5,5'-Heptabromodiphenyl ether (BDE-180)	ATI	Old
	9900	2,2',3,4,4',5,6,6'-Octabromodiphenyl ether (BDE-204)		
	9877	2,2',3,4,4',5,6-Heptabromodiphenyl ether (BDE-181)		
	9879	2,2',3,4,4',5',6-Heptabromodiphenyl ether (BDE-183)		
	9835	2,2',3,4,4',5'-Hexabromodiphenyl ether (BDE-138)		
	9880	2,2',3,4,4',6,6'-Heptabromodiphenyl ether (BDE-184)		







Vista Analytical Laboratory Inc.

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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9836	2,2',3,4,4',6-Hexabromodiphenyl ether (BDE-139)		THE REAL PROPERTY.
	9837	2,2',3,4,4',6'-Hexabromodiphenyl ether (BDE-140)	EC	00.
	9784	2,2',3,4,4'-Pentabromodiphenyl ether (BDE-85)		OGN
	9845	2,2',3,4',5,6'-Hexabromodiphenyl ether (BDE-148)		
	9569	2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE-153)		
	9850	2,2',4,4',5',6-Hexabromodiphenyl ether (BDE-154)		
	9571	2,2',4,4',5-Pentabromodiphenyl ether (BDE-99)		
	9851	2,2',4,4',6,6'-Hexabromodiphenyl ether (BDE-155)		
	9572	2,2',4,4',6-Pentabromodiphenyl ether (BDE-100)		
	9773	2,2',4,4'-Tetrabromodiphenyl ether (BDE-47)		
	9747	2,2',4,5'-Tetrabromodiphenyl ether (BDE-49)		
	9749	2,2',4,6'-Tetrabromodiphenyl ether (BDE-51)		A 15/
	9716	2,2',4-Tribromodiphenyl ether (BDE- 17)		- N B
	9867	2,2'3,3',4,4',6-Heptabromodiphenyl ether (BDE-171)	AT	Oly
	9901	2,3,3',4,4',5,5',6-Octabromodiphenyl ether (BDE-205)		
	9886	2,3,3',4,4',5,6-Heptabromodiphenyl ether (BDE-190)		
	9887	2,3,3',4,4',5',6-Heptabromodiphenyl ether (BDE-191)		
	9852	2,3,3',4,4',5-Hexabromodiphenyl ether (BDE-156)		
	9802	2,3,3',4,4'-Pentabromodiphenyl ether (BDE-105)		







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Matrix R	Reference	Analyte	Analyte	Method Code	Description
WIGHTA IV	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	9862	2,3,4,4',5,6-Hexabromodiphenyl ether		
		000_	(BDE-166)		THE RESERVE TO SERVE
		9815	2,3',4,4',5-Pentabromodiphenyl ether (BDE-118)	EC	OGN
		9816	2,3',4,4',6-Pentabromodiphenyl ether (BDE-119)		9/1/
		9764	2,3',4,4'-Tetrabromodiphenyl ether (BDE-66)		
		9817	2,3',4,5,5'-Pentabromodiphenyl ether (BDE-120)		
		9813	2,3,4,5,6-Pentabromodiphenyl ether (BDE-116)		CE
		9769	2,3',4',6-Tetrabromodiphenyl ether (BDE-71)		
		9720	2,3,4-Tribromodiphenyl ether (BDE- 21)		
		9724	2,3',4-Tribromodiphenyl ether (BDE- 25)		
		9732	2',3,4-Tribromodiphenyl ether (BDE- 33)		
		9774	2,4,4',6-Tetrabromodiphenyl ether (BDE-75)		
		9727	2,4,4'-Tribromodiphenyl ether (BDE-28)		S (5)
		9729	2,4,6-Tribromodiphenyl ether (BDE-30)		-18
		9731	2,4',6-Tribromodiphenyl ether (BDE- 32)	AT	Oly
		9706	2,4-Dibromodiphenyl ether (BDE-7)	A CONTRACTOR	
		9707	2,4'-Dibromodiphenyl ether (BDE-8)		
		9709	2,6-Dibromodiphenyl ether (BDE-10)		
		9700	2-Monobromodiphenyl ether (BDE-1)		
		9865	3,3',4,4',5,5'-Hexabromodiphenyl ether (BDE-169)		
		9823	3,3',4,4',5-Pentabromodiphenyl ether (BDE-126)		
		9776	3,3',4,4'-Tetrabromodiphenyl ether		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



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atrix	Reference	Analyte Code	Analyte	Method Code	Description
			(BDE-77)		
		9778	3,3',4,5'-Tetrabromodiphenyl ether (BDE-79)	EC	OGN
		9734	3,3',4-Tribromodiphenyl ether (BDE- 35)		GA
		9710	3,3'-Dibromodiphenyl ether (BDE-11)		
		9736	3,4,4'-Tribromodiphenyl ether (BDE-37)		
		9711	3,4-Dibromodiphenyl ether (BDE-12)		
		9712	3,4'-Dibromodiphenyl ether (BDE-13)		
		9701	3-Monobromodiphenyl ether (BDE-2)		
		9714	4,4'-Dibromodiphenyl ether (BDE-15)		
		5660	4-Bromophenyl phenyl ether (BDE-3)		
		9905	Decabromodiphenyl ether (BDE-209)		
	EPA 1668A			10262029	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
		9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		
		9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (BZ-194)		
		9101	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)		0/8
		9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		00/5
		9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)	AT	ON
		9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)	ALLE	THURSDAY
		9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		
		9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		
		9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ-128)		
		9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
		9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
		(BZ-198)		
	9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)	FC	OGN
	9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		GAL
	9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		
	9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)		
	9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		OE
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
	9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ- 129)		
	9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ-130)		
	9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)		5/8
	9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ- 131)		00/6/
	9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ- 132)	ATI	ON
	9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)	ALA	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		
	9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)		
	9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ-133)		
	9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		
	9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description	
		134)		THE REAL PROPERTY.	
	9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ- 135)	FC	0-	
	9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)	No.	-VG	
	9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ-136)		OG	
	9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)			
	9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)			
	9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)			
	9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)			
	9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)			
	9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)			
	9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl (BZ-182)			
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)			
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ- 137)			
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ-138)		lan.	
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)	AT	Ola	
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ-139)			
	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ-140)			
	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)			
	9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)			
	9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)			







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ-		
	9144	141) 2,2',3,4',5,5'-Hexachlorobiphenyl (BZ- 146)	EC	OGN
	9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)		
	9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)		
	9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)		
	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ- 143)		
	9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)		
	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)		
	9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ- 148)		
	9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-149)		
	9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)		
	8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)		5/8
	9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)		00/6/
	9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ-97)	ΔТ	ON
	9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ-145)	ALA	
	9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ- 150)		
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)		
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)		
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)		
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)		A REAL PROPERTY AND ADDRESS OF THE PARTY AND A
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)	EC	0
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ- 151)	E	OGN
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ-92)		
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)		
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)		
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)		
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ- 95)		
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)		
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)		
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	9173	2,2',3-Trichlorobiphenyl (BZ-16)		
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ- 153)		S /5/
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ- 154)		-118
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)	ATI	Oly
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ- 155)		
	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)		
	9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)		
	8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ-101)		
	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		
	9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-		







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latrix Reference	Analyte Code	Analyte	Method Code	Description	
		103)		LEGA	
	9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)	-	- 46	
	8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		00	
	9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)		OGN	
	9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)			TO Y
	9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)			
	9185	2,2',4-Trichlorobiphenyl (BZ-17)		1	18
	8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)			
	9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)			
	8930	2,2',5-Trichlorobiphenyl (BZ-18)			
	9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)			
	9188	2,2',6-Trichlorobiphenyl (BZ-19)			
	9189	2,2'-Dichlorobiphenyl (BZ-4)			
	9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)			
	9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl (BZ-189)			
	9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)			3
	9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		-02	
	9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ- 156)		SNB	
	9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ- 157)	AT	Ola	
	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)			
	8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ-105)			
	9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)			
	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)			
	9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)			







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
Hadrix Reference	9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-		Becomption
	0101	162)	-	THE RESERVE TO SERVE
	9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)	EC	OGN
	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ- 163)		
	9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ- 164)		
	9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)		
	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ-106)		
	9205	2,3,3',4',5-Pentachlorobiphenyl (BZ- 107)		
	9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ- 108)		
	9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		
	9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-109)		
	8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)		
	9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)		
	9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		
	9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ- 165)		ONB
	9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ- 111)	AT	Ola
	9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)		
	9212	2,3,3',5',6-Pentachlorobiphenyl (BZ-113)		
	9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)		
	9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		
	9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		
	9216	2,3,3'-Trichlorobiphenyl (BZ-20)		
	9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyte	Method Code	Description
watrix Reference	Code	167)		
	9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ- 166)	FC	OGN
	9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ- 168)	h- \	GA
	9005	2,3,4,4',5-Pentachlorobiphenyl (BZ-114)		
	8995	2,3',4,4',5-Pentachlorobiphenyl (BZ-118)		
	9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ- 123)		O
	9219	2,3,4,4',6-Pentachlorobiphenyl (BZ- 115)		
	9220	2,3',4,4',6-Pentachlorobiphenyl (BZ- 119)		
	9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)		
	8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)		
	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)		
	9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)		
	9225	2,3,4,5,6-Pentachlorobiphenyl (BZ- 116)		S 15
	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ- 117)		180/5
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ- 121)	ΔΤΙ	ON
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ- 125)	ALB	
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)		
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)		
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)		
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)		
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)		
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)		
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)		





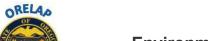


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Matrix Reference	Analyte Code	Analyte	Method Code	Description
TOTOTOTIO	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)	0000	Becompton
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)	-	THE REAL PROPERTY.
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)	370	0-
	9238	2,3,4-Trichlorobiphenyl (BZ-21)		OGN
	9241	2,3,4'-Trichlorobiphenyl (BZ-22)		
	9240	2,3',4-Trichlorobiphenyl (BZ-25)		
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)		
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)		
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		
	8935	2,3',5-Trichlorobiphenyl (BZ-26)		
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)		
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		
	8920	2,3-Dichlorobiphenyl (BZ-5)		
	9249	2,3'-Dichlorobiphenyl (BZ-6)		
	9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)		
	9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)		
	9252	2,4,4'-Trichlorobiphenyl (BZ-28)		
	9253	2,4,5-Trichlorobiphenyl (BZ-29)		60/6/
	8940	2,4',5-Trichlorobiphenyl (BZ-31)		-010
	9254	2,4,6-Trichlorobiphenyl (BZ-30)	ATI	014
	9255	2,4',6-Trichlorobiphenyl (BZ-32)		
	9257	2,4-Dichlorobiphenyl (BZ-7)		
	9256	2,4'-Dichlorobiphenyl (BZ-8)		
	9258	2,5-Dichlorobiphenyl (BZ-9)		
	9259	2,6-Dichlorobiphenyl (BZ-10)		
	8915	2-Chlorobiphenyl (BZ-1)		
	9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		
	9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		







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x Reference	Analyte Code	Analyte	Method Code	Description
	8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		LEGIS
	9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ-		The state of the s
		127)	30	.00
	9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		OGN
	9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		
	9263	3,3',4-Trichlorobiphenyl (BZ-35)		
	9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)		
	9265	3,3',5-Trichlorobiphenyl (BZ-36)		
	8925	3,3'-Dichlorobiphenyl (BZ-11)		
	8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
	9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
	9267	3,4,5-Trichlorobiphenyl (BZ-38)		
	9268	3,4',5-Trichlorobiphenyl (BZ-39)		
	9270	3,4-Dichlorobiphenyl (BZ-12)		
	9269	3,4'-Dichlorobiphenyl (BZ-13)		
	9271	3,5-Dichlorobiphenyl (BZ-14)		
	9272	3-Chlorobiphenyl (BZ-2)		
	9273	4,4'-Dichlorobiphenyl (BZ-15)		
	9274	4-Chlorobiphenyl (BZ-3)		
	9105	Decachlorobiphenyl (BZ-209)		A 1/5/
	8876	Total Dichlorobiphenyls		
	8877	Total Heptachlorobiphenyls		-100
	8888	Total Hexachlorobiphenyls	ATT	ON
	8889	Total Monochlorobiphenyls		0
	8891		Carrier Co.	
	8892	Total Octachlorobiphenyls		
	8896	Total Pentachlorobiphenyls		
	8893	Total Tetrachlorobiphenyls		
	8894	Total Trichlorobiphenyls		
EPA 1668C		1 7	10262109	Chlorinated Biphenyl Cogeners in Water, Soil, Sediment, and Tissue by GC-HRMS
	9095	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (BZ-206)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9090	2,2',3,3',4,4',5,5'-Octachlorobiphenyl		THE REAL PROPERTY.
	9101	(BZ-194) 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl (BZ-207)	EC	OGN
	9103	2,2',3,3',4,4',5,6-Octachlorobiphenyl (BZ-195)		- GIVI
	9102	2,2',3,3',4,4',5,6'-Octachlorobiphenyl (BZ-196)		
	9065	2,2',3,3',4,4',5-Heptachlorobiphenyl (BZ-170)		
	9104	2,2',3,3',4,4',6,6'-Octachlorobiphenyl (BZ-197)		
	9106	2,2',3,3',4,4',6-Heptachlorobiphenyl (BZ-171)		
	9020	2,2',3,3',4,4'-Hexachlorobiphenyl (BZ- 128)		
	9107	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl (BZ-208)		
	9109	2,2',3,3',4,5,5',6-Octachlorobiphenyl (BZ-198)		
	9108	2,2',3,3',4,5,5',6'-Octachlorobiphenyl (BZ-199)		
	9110	2,2',3,3',4,5,5'-Heptachlorobiphenyl (BZ-172)		S 151
	9111	2,2',3,3',4,5,6,6'-Octachlorobiphenyl (BZ-200)		-18
	9112	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (BZ-201)	ATI	Old
	9113	2,2',3,3',4,5,6-Heptachlorobiphenyl (BZ-173)		
	9116	2,2',3,3',4,5,6'-Heptachlorobiphenyl (BZ-174)		
	9115	2,2',3,3',4,5',6-Heptachlorobiphenyl (BZ-175)		
	9114	2,2',3,3',4,5',6'-Heptachlorobiphenyl (BZ-177)		
	9118	2,2',3,3',4,5-Hexachlorobiphenyl (BZ-129)		







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Matrix	Reference	Analyte Code	Analyte	Method Code	Description
		9117	2,2',3,3',4,5'-Hexachlorobiphenyl (BZ- 130)		LERRE
		9119	2,2',3,3',4,6,6'-Heptachlorobiphenyl (BZ-176)	EC	OGN
		9121	2,2',3,3',4,6-Hexachlorobiphenyl (BZ- 131)		- GIVI
		9120	2,2',3,3',4,6'-Hexachlorobiphenyl (BZ- 132)		
		9122	2,2',3,3',4-Pentachlorobiphenyl (BZ-82)		
		9123	2,2',3,3',5,5',6,6'-Octachlorobiphenyl (BZ-202)		CE
		9124	2,2',3,3',5,5',6-Heptachlorobiphenyl (BZ-178)		
		9125	2,2',3,3',5,5'-Hexachlorobiphenyl (BZ- 133)		
		9126	2,2',3,3',5,6,6'-Heptachlorobiphenyl (BZ-179)		
		9128	2,2',3,3',5,6-Hexachlorobiphenyl (BZ- 134)		
		9127	2,2',3,3',5,6'-Hexachlorobiphenyl (BZ- 135)		
		9129	2,2',3,3',5-Pentachlorobiphenyl (BZ-83)		S /5/
		9130	2,2',3,3',6,6'-Hexachlorobiphenyl (BZ- 136)		-118
		9131	2,2',3,3',6-Pentachlorobiphenyl (BZ-84)	AT	Old
		9132	2,2',3,3'-Tetrachlorobiphenyl (BZ-40)		
		9133	2,2',3,4,4',5,5',6-Octachlorobiphenyl (BZ-203)		
		9134	2,2',3,4,4',5,5'-Heptachlorobiphenyl (BZ-180)		
		9135	2,2',3,4,4',5,6,6'-Octachlorobiphenyl (BZ-204)		
		9137	2,2',3,4,4',5,6-Heptachlorobiphenyl (BZ-181)		
		9136	2,2',3,4,4',5,6'-Heptachlorobiphenyl		







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atrix Reference	Analyte Code	Analyte	Method Code	Description
		(BZ-182)		I I I I
	9075	2,2',3,4,4',5',6-Heptachlorobiphenyl (BZ-183)	FC	0-90
	9138	2,2',3,4,4',5-Hexachlorobiphenyl (BZ- 137)	lim %	GA
	9025	2,2',3,4,4',5'-Hexachlorobiphenyl (BZ- 138)		OGN
	9139	2,2',3,4,4',6,6'-Heptachlorobiphenyl (BZ-184)		
	9141	2,2',3,4,4',6-Hexachlorobiphenyl (BZ- 139)		OF
	9140	2,2',3,4,4',6'-Hexachlorobiphenyl (BZ- 140)		
	9142	2,2',3,4,4'-Pentachlorobiphenyl (BZ-85)		
	9143	2,2',3,4,5,5',6-Heptachlorobiphenyl (BZ-185)		
	9080	2,2',3,4',5,5',6-Heptachlorobiphenyl (BZ-187)		
	9030	2,2',3,4,5,5'-Hexachlorobiphenyl (BZ- 141)		
	9144	2,2',3,4',5,5'-Hexachlorobiphenyl (BZ- 146)		50/5
	9145	2,2',3,4,5,6,6'-Heptachlorobiphenyl (BZ-186)		20/5
	9146	2,2',3,4',5,6,6'-Heptachlorobiphenyl (BZ-188)	AT	ONDE
	9148	2,2',3,4,5,6-Hexachlorobiphenyl (BZ-142)	ALI	2000
	9152	2,2',3,4,5,6'-Hexachlorobiphenyl (BZ- 143)		
	9150	2,2',3,4,5',6-Hexachlorobiphenyl (BZ-144)		
	9149	2,2',3,4',5,6-Hexachlorobiphenyl (BZ-147)		
	9147	2,2',3,4',5,6'-Hexachlorobiphenyl (BZ-148)		
	9151	2,2',3,4',5',6-Hexachlorobiphenyl (BZ-		







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trix Reference	Analyte Code	Analyte	Method Code	Description
		149)		A REPORT
	9153	2,2',3,4,5-Pentachlorobiphenyl (BZ-86)	-	
	8975	2,2',3,4,5'-Pentachlorobiphenyl (BZ-87)	E	OGN
	9155	2,2',3,4',5-Pentachlorobiphenyl (BZ-90)		
	9154	2,2',3,4',5'-Pentachlorobiphenyl (BZ- 97)		
	9156	2,2',3,4,6,6'-Hexachlorobiphenyl (BZ- 145)		
	9157	2,2',3,4',6,6'-Hexachlorobiphenyl (BZ- 150)		
	9158	2,2',3,4,6-Pentachlorobiphenyl (BZ-88)		
	9161	2,2',3,4,6'-Pentachlorobiphenyl (BZ-89)		
	9160	2,2',3,4',6-Pentachlorobiphenyl (BZ-91)		
	9159	2,2',3,4',6'-Pentachlorobiphenyl (BZ-98)		
	9163	2,2',3,4-Tetrachlorobiphenyl (BZ-41)		
	9162	2,2',3,4'-Tetrachlorobiphenyl (BZ-42)		2//5/
	9035	2,2',3,5,5',6-Hexachlorobiphenyl (BZ- 151)		
	9164	2,2',3,5,5'-Pentachlorobiphenyl (BZ- 92)		-18
	9165	2,2',3,5,6,6'-Hexachlorobiphenyl (BZ- 152)	AT	Old
	9168	2,2',3,5,6-Pentachlorobiphenyl (BZ-93)	CALLED AN	
	9167	2,2',3,5,6'-Pentachlorobiphenyl (BZ-94)		
	9166	2,2',3,5',6-Pentachlorobiphenyl (BZ-95)		
	9169	2,2',3,5-Tetrachlorobiphenyl (BZ-43)		
	8945	2,2',3,5'-Tetrachlorobiphenyl (BZ-44)		
	9170	2,2',3,6,6'-Pentachlorobiphenyl (BZ-96)		
	9172	2,2',3,6-Tetrachlorobiphenyl (BZ-45)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9171	2,2',3,6'-Tetrachlorobiphenyl (BZ-46)		A RELEASE
	9173	2,2',3-Trichlorobiphenyl (BZ-16)	EC	0
	9040	2,2',4,4',5,5'-Hexachlorobiphenyl (BZ- 153)	E	OGN
	9174	2,2',4,4',5,6'-Hexachlorobiphenyl (BZ- 154)		
	9175	2,2',4,4',5-Pentachlorobiphenyl (BZ-99)		
	9176	2,2',4,4',6,6'-Hexachlorobiphenyl (BZ- 155)		0 1
	9177	2,2',4,4',6-Pentachlorobiphenyl (BZ-100)		
	9178	2,2',4,4'-Tetrachlorobiphenyl (BZ-47)		
	8980	2,2',4,5,5'-Pentachlorobiphenyl (BZ- 101)		
	9180	2,2',4,5,6'-Pentachlorobiphenyl (BZ-102)		
	9179	2,2',4,5',6-Pentachlorobiphenyl (BZ-103)		
	9181	2,2',4,5-Tetrachlorobiphenyl (BZ-48)		
	8950	2,2',4,5'-Tetrachlorobiphenyl (BZ-49)		
	9182	2,2',4,6,6'-Pentachlorobiphenyl (BZ-104)		
	9184	2,2',4,6-Tetrachlorobiphenyl (BZ-50)		-18
	9183	2,2',4,6'-Tetrachlorobiphenyl (BZ-51)	ATT	ON
	9185	2,2',4-Trichlorobiphenyl (BZ-17)		
	8955	2,2',5,5'-Tetrachlorobiphenyl (BZ-52)	Harris III	
	9186	2,2',5,6'-Tetrachlorobiphenyl (BZ-53)		
	8930	2,2',5-Trichlorobiphenyl (BZ-18)		
	9187	2,2',6,6'-Tetrachlorobiphenyl (BZ-54)		
	9188	2,2',6-Trichlorobiphenyl (BZ-19)		
	9189	2,2'-Dichlorobiphenyl (BZ-4)		
	9190	2,3,3',4,4',5,5',6-Octachlorobiphenyl (BZ-205)		
	9085	2,3,3',4,4',5,5'-Heptachlorobiphenyl		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
		(BZ-189)		
	9191	2,3,3',4,4',5,6-Heptachlorobiphenyl (BZ-190)	FC	OGN
	9192	2,3,3',4,4',5',6-Heptachlorobiphenyl (BZ-191)		GA
	9050	2,3,3',4,4',5-Hexachlorobiphenyl (BZ-156)		
	9045	2,3,3',4,4',5'-Hexachlorobiphenyl (BZ- 157)		
	9193	2,3,3',4,4',6-Hexachlorobiphenyl (BZ- 158)		OF
	8985	2,3,3',4,4'-Pentachlorobiphenyl (BZ- 105)		
	9194	2,3,3',4,5,5',6-Heptachlorobiphenyl (BZ-192)		
	9195	2,3,3',4',5,5',6-Heptachlorobiphenyl (BZ-193)		
	9196	2,3,3',4,5,5'-Hexachlorobiphenyl (BZ- 159)		
	9197	2,3,3',4',5,5'-Hexachlorobiphenyl (BZ-162)		
	9198	2,3,3',4,5,6-Hexachlorobiphenyl (BZ-160)		5
	9199	2,3,3',4',5,6-Hexachlorobiphenyl (BZ- 163)		00/5
	9201	2,3,3',4',5',6-Hexachlorobiphenyl (BZ- 164)	ATI	ONDE
	9200	2,3,3',4,5',6-Hexachlorobiphenyl (BZ-161)	ALA	
	9204	2,3,3',4,5-Pentachlorobiphenyl (BZ- 106)		
	9205	2,3,3',4',5-Pentachlorobiphenyl (BZ-107)		
	9203	2,3,3',4,5'-Pentachlorobiphenyl (BZ-108)		
	9202	2,3,3',4',5'-Pentachlorobiphenyl (BZ-122)		
	9206	2,3,3',4,6-Pentachlorobiphenyl (BZ-		







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Matrix Reference	Analyte	Analyte	Method Code	Description
Matrix Reference	Code	109)		
	8990	2,3,3',4',6-Pentachlorobiphenyl (BZ-110)	EC	OGN
	9208	2,3,3',4-Tetrachlorobiphenyl (BZ-55)	Section 1	.UC.
	9207	2,3,3',4'-Tetrachlorobiphenyl (BZ-56)		
	9209	2,3,3',5,5',6-Hexachlorobiphenyl (BZ- 165)		
	9210	2,3,3',5,5'-Pentachlorobiphenyl (BZ-111)		
	9211	2,3,3',5,6-Pentachlorobiphenyl (BZ-112)		OE
	9212	2,3,3',5',6-Pentachlorobiphenyl (BZ- 113)		
	9214	2,3,3',5-Tetrachlorobiphenyl (BZ-57)		
	9213	2,3,3',5'-Tetrachlorobiphenyl (BZ-58)		
	9215	2,3,3',6-Tetrachlorobiphenyl (BZ-59)		
	9216	2,3,3'-Trichlorobiphenyl (BZ-20)		
	9055	2,3',4,4',5,5'-Hexachlorobiphenyl (BZ-167)		
	9217	2,3,4,4',5,6-Hexachlorobiphenyl (BZ-166)		
	9218	2,3',4,4',5',6-Hexachlorobiphenyl (BZ- 168)		- CO / 5
	9005	2,3,4,4',5-Pentachlorobiphenyl (BZ- 114)		ON B
	8995	2,3',4,4',5-Pentachlorobiphenyl (BZ- 118)	AT	Ola
	9000	2,3',4,4',5'-Pentachlorobiphenyl (BZ-123)		
	9219	2,3,4,4',6-Pentachlorobiphenyl (BZ-115)		
	9220	2,3',4,4',6-Pentachlorobiphenyl (BZ-119)		
	9221	2,3,4,4'-Tetrachlorobiphenyl (BZ-60)		
	8960	2,3',4,4'-Tetrachlorobiphenyl (BZ-66)		
	9223	2,3',4,5,5'-Pentachlorobiphenyl (BZ-120)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9222	2,3',4',5,5'-Pentachlorobiphenyl (BZ-124)	F	ARREN .
	9225	2,3,4,5,6-Pentachlorobiphenyl (BZ-116)	E	OGA
	9227	2,3,4',5,6-Pentachlorobiphenyl (BZ- 117)		OGN
	9226	2,3',4,5',6-Pentachlorobiphenyl (BZ- 121)		
	9224	2,3',4',5',6-Pentachlorobiphenyl (BZ- 125)		101
	9228	2,3,4,5-Tetrachlorobiphenyl (BZ-61)		
	9233	2,3,4',5-Tetrachlorobiphenyl (BZ-63)		
	9231	2,3',4,5'-Tetrachlorobiphenyl (BZ-68)		
	9230	2,3',4',5-Tetrachlorobiphenyl (BZ-70)		
	9229	2,3',4',5'-Tetrachlorobiphenyl (BZ-76)		
	9232	2,3',4,5-Tetrachlorobiphenyl (BZ-67)		
	9234	2,3,4,6-Tetrachlorobiphenyl (BZ-62)		
	9236	2,3,4',6-Tetrachlorobiphenyl (BZ-64)		
	9235	2,3',4,6-Tetrachlorobiphenyl (BZ-69)		
	9237	2,3',4',6-Tetrachlorobiphenyl (BZ-71)		
	9238	2,3,4-Trichlorobiphenyl (BZ-21)		20/6/
	9241	2,3,4'-Trichlorobiphenyl (BZ-22)		
	9240	2,3',4-Trichlorobiphenyl (BZ-25)		510
	9239	2,3',4'-Trichlorobiphenyl (BZ-33)	ATT	ON
	9242	2,3',5,5'-Tetrachlorobiphenyl (BZ-72)	ATE	100
	9243	2,3,5,6-Tetrachlorobiphenyl (BZ-65)		
	9244	2,3',5',6-Tetrachlorobiphenyl (BZ-73)		
	9245	2,3,5-Trichlorobiphenyl (BZ-23)		
	8935	2,3',5-Trichlorobiphenyl (BZ-26)		
	9246	2,3',5'-Trichlorobiphenyl (BZ-34)		
	9247	2,3,6-Trichlorobiphenyl (BZ-24)		
	9248	2,3',6-Trichlorobiphenyl (BZ-27)		
	8920	2,3-Dichlorobiphenyl (BZ-5)		







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Matriv	Reference	Analyte	Analyte	Method Code	Description
viatiix	Reference	9249	2,3'-Dichlorobiphenyl (BZ-6)	Code	Description
		9250	2,4,4',5-Tetrachlorobiphenyl (BZ-74)	_	THE STATE OF THE S
		9251	2,4,4',6-Tetrachlorobiphenyl (BZ-75)	30	0-4
		9252	2,4,4'-Trichlorobiphenyl (BZ-28)	Best No.	OGN
		9253	2,4,5-Trichlorobiphenyl (BZ-29)		
		8940	2,4',5-Trichlorobiphenyl (BZ-31)		
		9254	2,4,6-Trichlorobiphenyl (BZ-30)		
		9255	2,4',6-Trichlorobiphenyl (BZ-32)		
		9257	2,4-Dichlorobiphenyl (BZ-7)		
		9256	2,4'-Dichlorobiphenyl (BZ-8)		
		9258	2,5-Dichlorobiphenyl (BZ-9)		
		9259	2,6-Dichlorobiphenyl (BZ-10)		
		8915	2-Chlorobiphenyl (BZ-1)		
		9060	3,3',4,4',5,5'-Hexachlorobiphenyl (BZ- 169)		
		9015	3,3',4,4',5-Pentachlorobiphenyl (BZ-126)		
		8965	3,3',4,4'-Tetrachlorobiphenyl (BZ-77)		
		9260	3,3',4,5,5'-Pentachlorobiphenyl (BZ- 127)		
		9262	3,3',4,5-Tetrachlorobiphenyl (BZ-78)		
		9261	3,3',4,5'-Tetrachlorobiphenyl (BZ-79)		00/15/
		9263	3,3',4-Trichlorobiphenyl (BZ-35)		-010
		9264	3,3',5,5'-Tetrachlorobiphenyl (BZ-80)	ATT	(9)
		9265	3,3',5-Trichlorobiphenyl (BZ-36)	A E B	100
		8925	3,3'-Dichlorobiphenyl (BZ-11)		
		8970	3,4,4',5-Tetrachlorobiphenyl (BZ-81)		
		9266	3,4,4'-Trichlorobiphenyl (BZ-37)		
		9267	3,4,5-Trichlorobiphenyl (BZ-38)		
		9268	3,4',5-Trichlorobiphenyl (BZ-39)		
		9270	3,4-Dichlorobiphenyl (BZ-12)		
		9269	3,4'-Dichlorobiphenyl (BZ-13)		
		9271	3,5-Dichlorobiphenyl (BZ-14)		



Environmental Laboratory Accreditation Program ORELAP Fields of Accreditation



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rix	Reference	Analyte Code	Analyte	Method Code	Description
		9272	3-Chlorobiphenyl (BZ-2)		
		9273	4,4'-Dichlorobiphenyl (BZ-15)	-	- 400
		9274	4-Chlorobiphenyl (BZ-3)	1 = 1 (0	OGN
		9105	Decachlorobiphenyl (BZ-209)		GA.
		8876	Total Dichlorobiphenyls		
		8877	Total Heptachlorobiphenyls		
		8888	Total Hexachlorobiphenyls		
		8889	Total Monochlorobiphenyls		
		8891	Total Nonachlorobiphenyls		
		8892	Total Octachlorobiphenyls		
		8896	Total Pentachlorobiphenyls		
		8893	Total Tetrachlorobiphenyls		
		8894	Total Trichlorobiphenyls		
	EPA 1699			10133105	Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS
		8580	2,4'-DDD		
		8585	2,4'-DDE		
		8590	2,4'-DDT		
		7005	Alachlor		
		7925	cis-Nonachlor		
		7870	Mirex		
		3890	Oxychlordane		-10
		7910	trans-Nonachlor	ATC	ON
	EPA 8280A			10186808	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran		



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x Reference	Analyte Code	Analyte	Method Code	Description
		(1,2,3,4,7,8,9-hpcdf)		A REPORT
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)	FC	O-SE
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)	No.	OGN
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		OF
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		NAE
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		00/5/
	9468	Hxcdd, total		- AIP
	9483	Hxcdf, total	4 8	
	9555	Pecdd, total	ALK	
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 8280B			10187005	Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS
	9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		







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Matrix Reference	Analyte Code	Analyte	Method Code	Description
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		THE REAL PROPERTY.
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)	E	.00
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		OGN
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran		491/9/
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		ONB
	9612	2,3,7,8-Tetrachlorodibenzofuran	4 2 2	Ola
	9438	Hpcdd, total	ALL	
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		
	9552	Pecdf, total		
	9609	TCDD, total		
	9615	TCDF, total		
EPA 8290			10187209	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated



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Matrix Reference	Analyte	Analyte	Method Code	Description
Wattix Reference	Code	Analyte	Code	Dibenzofurans (PCDFs) by GC/HRMS
	9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	FC	OGN
	9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	No.	· · · · · · · · · · · · · · · · · · ·
	9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
	9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
	9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		OF
	9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
	9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
	9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
	9456	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin(1,2,3,6,7,8-Hxcdd)		
	9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		
	9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)		5
	9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		20/6
	9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)	ΛТ	ONDE
	9480	2,3,4,6,7,8-Hexachlorodibenzofuran	All	10
	9549	2,3,4,7,8-Pentachlorodibenzofuran		
	9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
	9612	2,3,7,8-Tetrachlorodibenzofuran		
	9438	Hpcdd, total		
	9444	Hpcdf, total		
	9468	Hxcdd, total		
	9483	Hxcdf, total		
	9555	Pecdd, total		



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Matrix	Reference	Analyte Code	Analyte	Method Code	Description
		9552	Pecdf, total		E.R.R.R.
		9609	TCDD, total	EC	0
		9615	TCDF, total		UC.
	EPA 8290A		9	10187403	Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS
		9516	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)		
		9519	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)		
		9420	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-hpcdf)		
		9426	1,2,3,4,6,7,8-Heptachlorodibenzo-p- dioxin (1,2,3,4,6,7,8-hpcdd)		
		9423	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-hpcdf)		
		9471	1,2,3,4,7,8-Hexachlorodibenzofuran (1,2,3,4,7,8-Hxcdf)		
		9453	1,2,3,4,7,8-Hexachlorodibenzo-p- dioxin (1,2,3,4,7,8-Hxcdd)		
		9474	1,2,3,6,7,8-Hexachlorodibenzofuran (1,2,3,6,7,8-Hxcdf)		
		9456	1,2,3,6,7,8-Hexachlorodibenzo-p- dioxin(1,2,3,6,7,8-Hxcdd)		8/8/
		9477	1,2,3,7,8,9-Hexachlorodibenzofuran (1,2,3,7,8,9-Hxcdf)		-18
		9459	1,2,3,7,8,9-Hexachlorodibenzo-p- dioxin (1,2,3,7,8,9-Hxcdd)	AT	Ola
		9543	1,2,3,7,8-Pentachlorodibenzofuran (1,2,3,7,8-Pecdf)		
		9540	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (1,2,3,7,8-Pecdd)		
		9480	2,3,4,6,7,8-Hexachlorodibenzofuran		
		9549	2,3,4,7,8-Pentachlorodibenzofuran		
		9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)		
		9612	2,3,7,8-Tetrachlorodibenzofuran		



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Matrix	Reference	Analyte Code	Analyte	Method Code	Description
		9438	Hpcdd, total		LILEY IN
		9444	Hpcdf, total	100	- 400
		9468	Hxcdd, total	I = 0	OGN
		9483	Hxcdf, total	According to	GA.
		9555	Pecdd, total		
		9552	Pecdf, total		
		9609	TCDD, total		
		9615	TCDF, total		
	VAL SOP 49 24			60048524	Vista Analytical Laboratory - Per- and Poly-fluorinated Compounds by Isotope Dilution
		9490	11-chloreicosafluoro-3-oxaundecane- 1-sulfonic acid (11Cl-PF3OUdS)		
		6948	1H, 1H, 2H, 2H- Perfluorodecanesulfonic acid (8:2 FTS)		
		9616	1H, 1H, 2H, 2H-perfluorododecane sulfonic acid (10:2 FTS)		
		6946	1H, 1H, 2H, 2H- Perfluorohexanesulfonic acid (4:2 FTS)		
		6947	1H, 1H, 2H, 2H- Perfluorooctanesulfonic acid (6:2 FTS)	5
		9340	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)		20/5
		9338	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	ATI	ONDE
		9353	4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	AII	- T T T T T T T T T T T T T T T T T T T
		6951	(3:3 FTCA) 4,8-Dioxa-3H-perfluorononanoic acid (DONA)		
		6952	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)		
		9460	Hexafluoropropylene oxide dimer acid (HFPO-DA)		
		9395	N-Ethylperfluorooctane sulfonamide (EtFOSAm)		
		9431	N-Ethylperfluorooctane sulfonamido		







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	Analyte		Method	
Matrix Reference	Code	Analyte	Code	Description
	40.40	ethanol (EtFOSE)		
	4846	N- Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	EC	00.
	4847	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)		GN
	6949	N-Methylperfluorooctane sulfonamido ethanol (MeFOSE)		
	9433	N-Methylperfluorooctanesulfonamide (MeFOSA)		
	6956	Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)		
	6957	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)		
	6965	Perfluoro-3-methoxypropanoic acid (PFMPA)		
	6966	Perfluoro-4-methoxybutanoic acid (PFMBA)		
	6918	Perfluorobutane sulfonic acid (PFBS)		
	6915	Perfluorobutanoic acid (PFBA)		
	6920	Perfluorodecane sulfonic acid (PFDS)		A /5/
	6905	Perfluorodecanoic acid (PFDA)		
	6923	Perfluorododecane sulfonic acid (PFDoS)		
	6903	Perfluorododecanoic acid (PFDoA)		- 10
	9470	Perfluoroheptane sulfonic acid (PFHpS)	ATI	Oly
	6908	Perfluoroheptanoic acid (PFHpA)		
	6901	Perfluorohexadecanoic acid (PFHxDA)		
	6927	Perfluorohexane sulfonic acid (PFHxS)		
	6913	Perfluorohexanoic acid (PFHxA)		
	6929	Perfluorononane sulfonic acid (PFNS)		
	6906	Perfluorononanoic acid (PFNA)		
	6916	Perfluorooctadecanoic acid (PFODA)		
	6917	Perfluorooctane sulfonamide		



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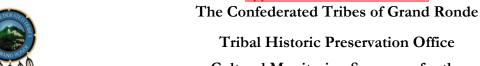
Certificate: 4042 - 021 Issue Date: 2/8/2022 Expiration Date: 2/7/2023

Matrix Reference	Analyte Code	Analyte	Method Code	Description
		(PFOSAm)		ALC DE LA CONTRACTOR DE
	6931	Perfluorooctane sulfonic acid (PFOS)		
	6912	Perfluorooctanoic acid (PFOA)	3	00
	6934	Perfluoropentane sulfonic acid (PFPeS)		OGN
	6914	Perfluoropentanoic acid (PFPeA)		
	6902	Perfluorotetradecanoic acid (PFTDA)		
	9563	Perfluorotridecanoic acid (PFTrDA)		
	6904	Perfluoroundecanoic acid (PFUnA)		
	6899	Potassium perfluoro-4- ethylcyclohexanesulfonate (PFecHS)		
	6898	Sodium perfluoro-1-propanesulfonate (PFPrS)	T	NI BODA

ATTACHMENT 3:

INADVERTENT DISCOVERY PLAN (DRAFT)

Applicable on Tribal FEE Lands



Tribal Historic Preservation Office

Cultural Monitoring Summary for the Inadvertent Discovery of Ancestral Remains and Cultural Materials

The following steps summarizing protocol that will be followed by all crew members in the event of a human remains/burial items or cultural materials discovery. Historic materials associated with the Blue Heron Paper Mill will be exempt from this process, unless the finds are unique and notably different from what is already known to be present at the facility.

STEP 1: Stop Work.

If any employee, contractor, or subcontractor believes that they have uncovered a cultural resource at any point in the project, all work must stop immediately. Notify the appropriate party(ies). Leave the surrounding area untouched, and provide a secured and protected buffer no less than 30 meters (100 ft.) around the discovery. The discovery location must be secured at all times by a temporary fence or other onsite security. Any temporary fence should not further impact the ground.

STEP 2: Notify the Cultural Resources Monitor.

If there is a Cultural Resources Monitor for the project, notify that person. If there is a monitoring plan in place, the monitor will follow the outlined procedure.

STEP 3: Notify the Project Manager.

The Project Manager or applicable staff will make all calls and necessary notifications. If a Cultural Resources Monitor is on the project, the Project Manager may delegate the responsibility of notification to the Cultural Resources Monitor.

If human remains are encountered, treat them with dignity and respect at all times. Cover the remains with a new clean tarp for temporary protection and to shield them from being photographed. Do not call 911 or speak with the media. Do not take pictures.

Project Manager's Responsibilities:

- Protect Find: The Project Manager is responsible for taking appropriate steps to protect the discovery site. All work will stop in an area adequate to provide for the total security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed following provisions for treating cultural material as set forth in this document.
- Direct Construction Elsewhere On-site: The Project Manager may direct construction away from cultural resources to work in other areas if a cultural resources monitor is available to monitor said activities.
- Identify Find: A professional archaeologist will examine the find to determine if it is archaeological.
 - o If the discovery is determined to not be archaeological, work may proceed with no further delay.
 - o If the discovery is determined to be archaeological, the Project Manager will continue with notification to the Historic Preservation Office.
 - o If the discovery is human remains, the Project Manager will ensure that law enforcement is notified, and then notify the Historic Preservation Office.

Special Procedures for Human Remains

Any human skeletal remains, regardless of antiquity or ethnic origin, will at all times be treated with dignity and respect. Cover the remains with a new clean tarp for temporary protection and to shield them from being photographed. Do not call 911 or speak with the media. Do not take pictures.

Details are outlined in the position paper Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Non-Federal Public Lands in Oregon.

Applicable on Tribal FEE Lands

Synthesis of Monitoring Protocol

The following flowchart summarizing protocol that will be followed by the monitoring archaeologist in the event of a human remains/burial items or cultural materials discovery. Historic materials associated with the Blue Heron Paper Mill will be exempt from this process, unless the finds are unique and notably different from what is already known to be present at the facility.

Ancestral Remains and Burial Items

Stop all work and protect the remains

- •Establish a 100 ft. min. buffer
- •Cover with new, clean tarp
- •Do not remove the remains
- •Do not photograph the remains

Immediately notify the Project Manager

If suspected human remains immediately contact Oregon State Police

Immediately contact the THPO for all situations

Maintain confidentiality

Do not resume work in the area until notified by the THPO

Archaeological Materials and Features

Stop any ground-disturbing work and protect the discovery

- •Establish a 100 ft. min. buffer
- •Do not remove the materials

Immediately notify the Project Manager

Consulting Archaeologist will

- •Photograph and document
- •Confirm isolate, site, or feature
- •Delineate approx. boundaries
- •Collect all exposed artifacts
- •Keep artifacts in a secure location until next steps are determined

Notify the THPO within 24 hours

Provide notes and photos

Maintain confidentiality

Determine next steps with the Project Manager and the THPO

Do not resume work in the area until notified by the THPO

Other Cultural Materials

Stop any ground-disturbing work and protect the discovery

- •Establish a 100 ft. min. buffer
- •Do not remove the materials

Immediately notify the Project Manager

Consulting Archaeologist will

- •Determin if archaeological
- •Photograph and document
- •If suspect, contact the THPO for further directions

Do no resume work in the area until notfied by the THPO

Contacts

Manager, Historic Preservation Office; Deputy Tribal Historic Preservation Officer Briece.edwards@grandronde.org THPO@grandronde.org	Briece Edwards	Office: (503) 879-2084 Cell: (919) 274-4458
CTGR- Sr. Archaeologist or other Designee Michael.lewis@grandronde.org	Michael Lewis	Cell: (503) 720-2815
Oregon State Police	Lt. Craig Heuberger	Cell: (503) 508-0779
Tribal Police	Chief Jake McNight	(503) 879-1474
State Physical Anthropologist (LCIS) Elissa.Bullion@oregonlegislature.gov	Dr. Elissa Bullion	Cell: (503) 986-1066