284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS
GENERAL CHEMISTRY
METALS
GC SEMI-VOLATILES
SEMI-VOLATILE ORGANICS

PROJECT NAME : MEEKER AVE PLUMES SUPERFUND SITE RI FS

AECOM

605 3rd Avenue

29th Floor

New York, NY - 10158

Phone No: 212-973-2900

ORDER ID : P4921

ATTENTION : Amit Haryani

Laboratory Certification ID # 20012

Table Of Contents for P4921

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : P4921

Project ID : Meeker Ave Plumes Superfund Site RI FS

Client : AECOM

Lab Sample Number	Client Sample Number
P4921-01	WC-11-A-202411

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/29/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP VOA.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of TCLP VOA was based on method 8260D and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.
Trip Blank was not provided with this set of samples.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

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F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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Signature_____

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP BNA.

C. Analytical Techniques:
The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of TCLP BNA was based on method 8270E and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike for {PB165144BS} with File ID: BF140659.D met requirements for all samples except for Pyridine[99%] . But associated samples have not positive hit for this compound therefore no corrective action was taken.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
The Form 6 is not included in the data package because the Initial Calibration was performed using 8 points.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial

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Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: TCLP Pesticide

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP Pesticide.

C. Analytical Techniques:
The analysis was performed on instrument ECD_L. The front column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11 The rear column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. .The analysis of TCLP Pesticides was based on method 8081B and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

E. Additional Comments:

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: PCB

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for PCB.

C. Analytical Techniques:
The analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.The analysis of PCBs was based on method 8082A and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

E. Additional Comments:

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

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above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for TCLP Mercury,TCLP ICP Metals.

C. Analytical Techniques:
The analysis of TCLP ICP Metals was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of TCLP Mercury was based on method 7470A and TCLP extraction method was 1311.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4921
Test Name: pH,Cyanide,Flash Point,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/19/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Flash Point, PCB, pH, Reactive Cyanide, Reactive Sulfide, TCLP BNA, TCLP Extraction, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA and TCLP ZHE Extraction. This data package contains results for pH,Cyanide,Flash Point,Reactive Cyanide,Reactive Sulfide.

C. Analytical Techniques:
The analysis of Flash Point was based on method 1010B, The analysis of Cyanide,Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034 and The analysis of pH was based on method 9040C.

D. QA/ QC Samples:
The Holding Times were met for all samples except for WC-11-A-202411 of pH as sample receive out of holding time.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

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DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4921

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: SOHIL JODHANI **Date:** 11/29/2024

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**TCLP**			**11/19/24**			**11/19/24**
			TCLP VOA	8260D			11/21/24	

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Hit Summary Sheet
SW-846

SDG No.: P4921

Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**WC-11-A-202411**							
P4921-01	WC-11-A-202411	TCLP	1,2-Dichloroethane	6.40		0.24	5.00	ug/L
P4921-01	WC-11-A-202411	TCLP	Trichloroethene	2.20	J	0.32	5.00	ug/L
P4921-01	WC-11-A-202411	TCLP	Tetrachloroethene	18.5		0.25	5.00	ug/L
			Total Voc :	27.1				
			Total Concentration:	27.1				

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX043937.D	1		11/21/24 16:03	VX112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	5.00	ug/L
71-43-2	Benzene	0.16	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	6.40		0.24	5.00	ug/L
79-01-6	Trichloroethene	2.20	J	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	18.5		0.25	5.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.2		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		75 - 124	92%	SPK: 50
2037-26-5	Toluene-d8	48.9		86 - 113	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.0		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	120000	5.544			
540-36-3	1,4-Difluorobenzene	230000	6.757			
3114-55-4	Chlorobenzene-d5	202000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	87200	12.024			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SDG No.: P4921

Client: AECOM

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
P4921-01	WC-11-A-202411	1,2-Dichloroethane-d4	50	49.2	98	74	125
		Dibromofluoromethane	50	46.0	92	75	124
		Toluene-d8	50	48.9	98	86	113
		4-Bromofluorobenzene	50	48.0	96	77	121

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Surrogate Summary

SDG No.: P4921

Client: AECOM

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
VX1121WBL01	VX1121WBL01	1,2-Dichloroethane-d4	50	49.5	99	74	125
		Dibromofluoromethane	50	46.0	92	75	124
		Toluene-d8	50	49.5	99	86	113
		4-Bromofluorobenzene	50	49.0	98	77	121
VX1121WBS01	VX1121WBS01	1,2-Dichloroethane-d4	50	50.8	102	74	125
		Dibromofluoromethane	50	47.8	96	75	124
		Toluene-d8	50	48.3	97	86	113
		4-Bromofluorobenzene	50	48.5	97	77	121
VX1121WBSD0	VX1121WBSD01	1,2-Dichloroethane-d4	50	49.4	99	74	125
		Dibromofluoromethane	50	46.4	93	75	124
		Toluene-d8	50	48.4	97	86	113
		4-Bromofluorobenzene	50	49.5	99	77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: SW8260-Low **Datafile :** VX043935.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1121WBS01	Vinyl chloride	20	18.5	ug/L	93			65	117	
	1,1-Dichloroethene	20	17.9	ug/L	90			74	110	
	2-Butanone	100	95.6	ug/L	96			65	122	
	Carbon Tetrachloride	20	17.0	ug/L	85			77	113	
	Chloroform	20	19.1	ug/L	96			79	113	
	Benzene	20	18.4	ug/L	92			82	109	
	1,2-Dichloroethane	20	18.4	ug/L	92			80	115	
	Trichloroethene	20	15.5	ug/L	78			77	113	
	Tetrachloroethene	20	17.7	ug/L	89			67	123	
	Chlorobenzene	20	17.6	ug/L	88			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: SW8260-Low **Datafile :** VX043936.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1121WBSD01	Vinyl chloride	20	17.7	ug/L	89	4		65	117	20
	1,1-Dichloroethene	20	17.8	ug/L	89	1		74	110	20
	2-Butanone	100	98.3	ug/L	98	2		65	122	20
	Carbon Tetrachloride	20	17.8	ug/L	89	5		77	113	20
	Chloroform	20	18.3	ug/L	92	4		79	113	20
	Benzene	20	18.1	ug/L	91	1		82	109	20
	1,2-Dichloroethane	20	18.3	ug/L	92	0		80	115	20
	Trichloroethene	20	15.5	ug/L	78	0		77	113	20
	Tetrachloroethene	20	18.2	ug/L	91	2		67	123	20
	Chlorobenzene	20	17.5	ug/L	88	0		82	109	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1121WBL01

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab File ID: VX043934.D Lab Sample ID: VX1121WBL01

Date Analyzed: 11/21/2024 Time Analyzed: 14:50

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1121WBS01	VX1121WBS01	VX043935.D	11/21/2024
VX1121WBSD01	VX1121WBSD01	VX043936.D	11/21/2024
WC-11-A-202411	P4921-01	VX043937.D	11/21/2024

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab File ID: VX043924.D BFB Injection Date: 11/21/2024

Instrument ID: MSVOA_X BFB Injection Time: 08:51

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	54.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.5 (0.7) 1
174	50.0 - 100.0% of mass 95	70.5
175	5.0 - 9.0% of mass 174	4.8 (6.8) 1
176	95.0 - 101.0% of mass 174	67.9 (96.4) 1
177	5.0 - 9.0% of mass 176	4.9 (7.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX043925.D	11/21/2024	09:47
VSTDICC005	VSTDICC005	VX043926.D	11/21/2024	10:14
VSTDICC020	VSTDICC020	VX043927.D	11/21/2024	10:37
VSTDICCC050	VSTDICCC050	VX043928.D	11/21/2024	11:17
VSTDICC100	VSTDICC100	VX043929.D	11/21/2024	11:40
VSTDICC150	VSTDICC150	VX043930.D	11/21/2024	12:03
VX1121WBL01	VX1121WBL01	VX043934.D	11/21/2024	14:50
VX1121WBS01	VX1121WBS01	VX043935.D	11/21/2024	15:13
VX1121WBSD01	VX1121WBSD01	VX043936.D	11/21/2024	15:40
WC-11-A-202411	P4921-01	VX043937.D	11/21/2024	16:03

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab File ID: VX043928.D Date Analyzed: 11/21/2024

Instrument ID: MSVOA_X Time Analyzed: 11:17

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	138578	5.54	241629	6.76	212243	10.05
UPPER LIMIT	277156	6.038	483258	7.257	424486	10.549
LOWER LIMIT	69289	5.038	120815	6.257	106122	9.549
EPA SAMPLE NO.						
WC-11-A-202411	120017	5.54	230353	6.76	202083	10.06
VX1121WBL01	130697	5.54	247747	6.76	216577	10.05
VX1121WBS01	142766	5.54	267012	6.76	228045	10.06
VX1121WBSD01	129837	5.55	234251	6.76	206616	10.05

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab File ID: VX043928.D Date Analyzed: 11/21/2024

Instrument ID: MSVOA_X Time Analyzed: 11:17

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	100316	12.024				
UPPER LIMIT	200632	12.524				
LOWER LIMIT	50158	11.524				
EPA SAMPLE NO.						
WC-11-A-202411	87227	12.02				
VX1121WBL01	92124	12.02				
VX1121WBS01	103776	12.02				
VX1121WBSD01	93190	12.02				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	VX1121WBL01	SDG No.:	P4921
Lab Sample ID:	VX1121WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX043934.D	1		11/21/24 14:50	VX112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.5		74 - 125	99%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		75 - 124	92%	SPK: 50
2037-26-5	Toluene-d8	49.5		86 - 113	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.0		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	131000	5.544			
540-36-3	1,4-Difluorobenzene	248000	6.757			
3114-55-4	Chlorobenzene-d5	217000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	92100	12.024			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	VX1121WBS01	SDG No.:	P4921
Lab Sample ID:	VX1121WBS01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX043935.D	1		11/21/24 15:13	VX112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.5		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		0.26	1.00	ug/L
78-93-3	2-Butanone	95.6		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	17.0		0.25	1.00	ug/L
67-66-3	Chloroform	19.1		0.26	1.00	ug/L
71-43-2	Benzene	18.4		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.4		0.24	1.00	ug/L
79-01-6	Trichloroethene	15.5		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	17.7		0.25	1.00	ug/L
108-90-7	Chlorobenzene	17.6		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		74 - 125	102%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		75 - 124	96%	SPK: 50
2037-26-5	Toluene-d8	48.3		86 - 113	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.5		77 - 121	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	143000	5.543			
540-36-3	1,4-Difluorobenzene	267000	6.757			
3114-55-4	Chlorobenzene-d5	228000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	104000	12.024			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	VX1121WBSD01	SDG No.:	P4921
Lab Sample ID:	VX1121WBSD01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX043936.D	1		11/21/24 15:40	VX112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	17.7		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.8		0.26	1.00	ug/L
78-93-3	2-Butanone	98.3		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	17.8		0.25	1.00	ug/L
67-66-3	Chloroform	18.3		0.26	1.00	ug/L
71-43-2	Benzene	18.1		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.3		0.24	1.00	ug/L
79-01-6	Trichloroethene	15.5		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	18.2		0.25	1.00	ug/L
108-90-7	Chlorobenzene	17.5		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.4		74 - 125	99%	SPK: 50
1868-53-7	Dibromofluoromethane	46.4		75 - 124	93%	SPK: 50
2037-26-5	Toluene-d8	48.4		86 - 113	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		77 - 121	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	130000	5.55			
540-36-3	1,4-Difluorobenzene	234000	6.757			
3114-55-4	Chlorobenzene-d5	207000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	93200	12.018			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG No.: P4921

Instrument ID: MSVOA_X Calibration Date(s): 11/21/2024 11/21/2024

Heated Purge: (Y/N) N Calibration Time(s): 09:47 12:03

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX043925.D RRF005 = VX043926.D RRF020 = VX043927.D
RRF050 = VX043928.D RRF100 = VX043929.D RRF150 = VX043930.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Vinyl Chloride	0.675	0.708	0.730	0.762	0.695	0.684	0.709	4.6
1,1-Dichloroethene	0.596	0.530	0.585	0.600	0.572	0.576	0.576	4.4
2-Butanone	0.448	0.486	0.538	0.567	0.500	0.510	0.508	8.1
Carbon Tetrachloride	0.439	0.466	0.491	0.558	0.520	0.528	0.500	8.7
Chloroform	1.070	1.238	1.309	1.316	1.269	1.293	1.249	7.4
Benzene	1.211	1.369	1.457	1.494	1.388	1.402	1.387	7
1,2-Dichloroethane	0.499	0.546	0.585	0.603	0.551	0.558	0.557	6.4
Trichloroethene	0.547	0.372	0.368	0.373	0.345	0.352	0.393	19.5
Tetrachloroethene	0.304	0.342	0.336	0.349	0.315	0.332	0.330	5.1
Chlorobenzene	1.050	1.109	1.107	1.145	1.069	1.108	1.098	3.1
1,2-Dichloroethane-d4		0.926	0.876	0.751	0.855	0.880	0.858	7.6
Dibromofluoromethane		0.371	0.353	0.327	0.359	0.376	0.357	5.4
Toluene-d8		1.327	1.237	1.104	1.232	1.257	1.232	6.6
4-Bromofluorobenzene		0.401	0.414	0.387	0.438	0.455	0.419	6.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**TCLP**			**11/19/24**			**11/19/24**
			TCLP BNA	8270E		11/20/24	11/21/24	

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Hit Summary Sheet
SW-846

SDG No.: P4921

Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID :								
				0.000				
			Total Svoc :			**0.00**		
			Total Concentration:			**0.00**		

SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140549.D	1	11/20/24 11:30	11/21/24 21:25	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	15.5	UQ	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	8.40	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	11.3	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.5	U	11.5	100	ug/L
67-72-1	Hexachloroethane	10.1	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	12.7	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	12.7	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	8.90	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	10.1	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	15.2	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	11.4	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	18.5	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	128		10 - 139	86%	SPK: 150
13127-88-3	Phenol-d6	117		10 - 134	78%	SPK: 150
4165-60-0	Nitrobenzene-d5	97.8		49 - 133	98%	SPK: 100
321-60-8	2-Fluorobiphenyl	98.5		52 - 132	98%	SPK: 100
118-79-6	2,4,6-Tribromophenol	136		44 - 137	91%	SPK: 150
1718-51-0	Terphenyl-d14	97.1		48 - 125	97%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	79300	6.869			
1146-65-2	Naphthalene-d8	291000	8.151			
15067-26-2	Acenaphthene-d10	151000	9.904			
1517-22-2	Phenanthrene-d10	264000	11.398			
1719-03-5	Chrysene-d12	157000	14.045			
1520-96-3	Perylene-d12	121000	15.533			

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Report of Analysis

Client:	AECOM			Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411			SDG No.:	P4921
Lab Sample ID:	P4921-01			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140549.D	1	11/20/24 11:30	11/21/24 21:25	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	AECOM	Date Collected:	11/20/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/20/24
Client Sample ID:	PB165123TB	SDG No.:	P4921
Lab Sample ID:	PB165123TB	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140591.D	1	11/20/24 11:30	11/25/24 09:59	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	15.5	UQ	15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	8.40	U	8.40	50.0	ug/L
95-48-7	2-Methylphenol	11.3	U	11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	11.5	U	11.5	100	ug/L
67-72-1	Hexachloroethane	10.1	U	10.1	50.0	ug/L
98-95-3	Nitrobenzene	12.7	U	12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	12.7	U	12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	8.90	U	8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	10.1	U	10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	15.2	U	15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	11.4	U	11.4	50.0	ug/L
87-86-5	Pentachlorophenol	18.5	U	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	149		10 - 139	99%	SPK: 150
13127-88-3	Phenol-d6	145		10 - 134	97%	SPK: 150
4165-60-0	Nitrobenzene-d5	96.9		49 - 133	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	97.3		52 - 132	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	143		44 - 137	96%	SPK: 150
1718-51-0	Terphenyl-d14	104		48 - 125	104%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	93500	6.869			
1146-65-2	Naphthalene-d8	358000	8.151			
15067-26-2	Acenaphthene-d10	203000	9.904			
1517-22-2	Phenanthrene-d10	380000	11.398			
1719-03-5	Chrysene-d12	213000	14.045			
1520-96-3	Perylene-d12	180000	15.551			

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Report of Analysis

Client:	AECOM			Date Collected:	11/20/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/20/24
Client Sample ID:	PB165123TB			SDG No.:	P4921
Lab Sample ID:	PB165123TB			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140591.D	1	11/20/24 11:30	11/25/24 09:59	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4892-03MS	WB-310-BOTMS	2-Fluorophenol	150	132	88		10	139
		Phenol-d6	150	120	80		10	134
		Nitrobenzene-d5	100	99.5	100		49	133
		2-Fluorobiphenyl	100	96.8	97		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	104	104		48	125
P4892-03MSD	WB-310-BOTMSD	2-Fluorophenol	150	122	81		10	139
		Phenol-d6	150	111	74		10	134
		Nitrobenzene-d5	100	90.2	90		49	133
		2-Fluorobiphenyl	100	89.0	89		52	132
		2,4,6-Tribromophenol	150	144	96		44	137
		Terphenyl-d14	100	98.2	98		48	125
P4921-01	WC-11-A-202411	2-Fluorophenol	150	128	86		10	139
		Phenol-d6	150	117	78		10	134
		Nitrobenzene-d5	100	97.8	98		49	133
		2-Fluorobiphenyl	100	98.5	98		52	132
		2,4,6-Tribromophenol	150	136	91		44	137
		Terphenyl-d14	100	97.1	97		48	125
PB165123TB	PB165123TB	2-Fluorophenol	150	149	99		10	139
		Phenol-d6	150	145	97		10	134
		Nitrobenzene-d5	100	96.9	97		49	133
		2-Fluorobiphenyl	100	97.3	97		52	132
		2,4,6-Tribromophenol	150	143	96		44	137
		Terphenyl-d14	100	104	104		48	125
PB165144BL	PB165144BL	2-Fluorophenol	150	139	93		10	139
		Phenol-d6	150	135	90		10	134
		Nitrobenzene-d5	100	95.9	96		49	133
		2-Fluorobiphenyl	100	95.1	95		52	132
		2,4,6-Tribromophenol	150	133	89		44	137
		Terphenyl-d14	100	98.5	98		48	125
PB165144BS	PB165144BS	2-Fluorophenol	150	137	92		10	139
		Phenol-d6	150	135	90		10	134
		Nitrobenzene-d5	100	92.9	93		49	133
		2-Fluorobiphenyl	100	91.7	92		52	132
		2,4,6-Tribromophenol	150	140	93		44	137
		Terphenyl-d14	100	91.8	92		48	125

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: P4892-03MS		**Client Sample ID: WB-310-BOTMS**						**DataFile: BF140613.D**			
Pyridine	500	0	400	ug/L	80				10	109	
1,4-Dichlorobenzene	500	0	320	ug/L	64				55	125	
2-Methylphenol	500	0	470	ug/L	94				37	126	
3+4-Methylphenols	500	0	470	ug/L	94				31	127	
Hexachloroethane	500	0	300	ug/L	60				49	110	
Nitrobenzene	500	0	440	ug/L	88				62	112	
Hexachlorobutadiene	500	0	380	ug/L	76				52	125	
2,4,6-Trichlorophenol	500	0	520	ug/L	104				78	112	
2,4,5-Trichlorophenol	500	0	520	ug/L	104				71	111	
2,4-Dinitrotoluene	500	0	540	ug/L	108				50	142	
Hexachlorobenzene	500	0	510	ug/L	102				72	115	
Pentachlorophenol	1000	0	1200	ug/L	120				25	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: P4892-03MSD		**Client Sample ID: WB-310-BOTMSD**						**DataFile: BF140614.D**			
Pyridine	500	0	370	ug/L	74		8		10	109	20
1,4-Dichlorobenzene	500	0	290	ug/L	58		10		55	125	20
2-Methylphenol	500	0	430	ug/L	86		9		37	126	20
3+4-Methylphenols	500	0	440	ug/L	88		7		31	127	20
Hexachloroethane	500	0	280	ug/L	56		7		49	110	20
Nitrobenzene	500	0	400	ug/L	80		10		62	112	20
Hexachlorobutadiene	500	0	350	ug/L	70		8		52	125	20
2,4,6-Trichlorophenol	500	0	480	ug/L	96		8		78	112	20
2,4,5-Trichlorophenol	500	0	480	ug/L	96		8		71	111	20
2,4-Dinitrotoluene	500	0	500	ug/L	100		8		50	142	20
Hexachlorobenzene	500	0	460	ug/L	92		10		72	115	20
Pentachlorophenol	1000	0	1100	ug/L	110		9		25	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8270E **DataFile:** BF140659.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165144BS	Pyridine	50	49.6	ug/L	99		*		29	97	
	1,4-Dichlorobenzene	50	46.6	ug/L	93				76	103	
	2-Methylphenol	50	49.8	ug/L	100				69	109	
	3+4-Methylphenols	50	49.2	ug/L	98				67	106	
	Hexachloroethane	50	46.8	ug/L	94				76	118	
	Nitrobenzene	50	45.8	ug/L	92				58	106	
	Hexachlorobutadiene	50	46.0	ug/L	92				69	101	
	2,4,6-Trichlorophenol	50	48.2	ug/L	96				61	110	
	2,4,5-Trichlorophenol	50	46.6	ug/L	93				70	106	
	2,4-Dinitrotoluene	50	49.1	ug/L	98				60	115	
	Hexachlorobenzene	50	47.1	ug/L	94				73	106	
	Pentachlorophenol	100	97.1	ug/L	97				47	114	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165144BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140537.D Lab Sample ID: PB165144BL

Instrument ID: BNA_F Date Extracted: 11/20/2024

Matrix: (soil/water) water Date Analyzed: 11/21/2024

Level: (low/med) LOW Time Analyzed: 15:34

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165123TB	PB165123TB	BF140591.D	11/25/2024
WB-310-BOTMS	P4892-03MS	BF140613.D	11/25/2024
WB-310-BOTMSD	P4892-03MSD	BF140614.D	11/25/2024
PB165144BS	PB165144BS	BF140659.D	11/27/2024
WC-11-A-202411	P4921-01	BF140549.D	11/21/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140526.D DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_F DFTPP Injection Time: 10:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	35.5
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	48
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	29.2
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.7
442	Greater than 50% of mass 198	99.8
443	15.0 - 24.0% of mass 442	18.1 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF140528.D	11/21/2024	11:13
SSTDICC005	SSTDICC005	BF140529.D	11/21/2024	11:39
SSTDICC010	SSTDICC010	BF140530.D	11/21/2024	12:05
SSTDICC020	SSTDICC020	BF140531.D	11/21/2024	12:32
SSTDICCC040	SSTDICCC040	BF140532.D	11/21/2024	12:58
SSTDICC050	SSTDICC050	BF140533.D	11/21/2024	13:25
SSTDICC060	SSTDICC060	BF140534.D	11/21/2024	13:51
SSTDICC080	SSTDICC080	BF140535.D	11/21/2024	14:18
PB165144BL	PB165144BL	BF140537.D	11/21/2024	15:34

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140538.D DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_F DFTPP Injection Time: 16:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.7
68	Less than 2.0% of mass 69	0.6 (1.9) 1
69	Mass 69 relative abundance	33.5
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	44.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 60.0% of mass 198	28.3
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.1 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140539.D	11/21/2024	16:54
WC-11-A-202411	P4921-01	BF140549.D	11/21/2024	21:25

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140589.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_F DFTPP Injection Time: 09:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.8
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	36.7
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 60.0% of mass 198	28.6
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	98.2
443	15.0 - 24.0% of mass 442	18.5 (18.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140590.D	11/25/2024	09:33
PB165123TB	PB165123TB	BF140591.D	11/25/2024	09:59

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140603.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_F DFTPP Injection Time: 15:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	34.8
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	46.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	28
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.4 (18.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140604.D	11/25/2024	15:49
WB-310-BOTMS	P4892-03MS	BF140613.D	11/25/2024	19:52
WB-310-BOTMSD	P4892-03MSD	BF140614.D	11/25/2024	20:18

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4921 SDG NO.: P4921

Lab File ID: BF140654.D DFTPP Injection Date: 11/27/2024

Instrument ID: BNA_F DFTPP Injection Time: 08:19

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	34.4
68	Less than 2.0% of mass 69	0.6 (1.6) 1
69	Mass 69 relative abundance	36.3
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	48.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	29
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	15
442	Greater than 50% of mass 198	96.2
443	15.0 - 24.0% of mass 442	17.7 (18.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140655.D	11/27/2024	08:47
PB165144BS	PB165144BS	BF140659.D	11/27/2024	10:30

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDICCC040 Date Analyzed: 11/21/2024

Lab File ID: BF140532.D Time Analyzed: 12:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	107516	6.875	413408	8.16	234407	9.92
	UPPER LIMIT	215032	7.375	826816	8.657	468814	10.416
	LOWER LIMIT	53758	6.375	206704	7.657	117204	9.416
	EPA SAMPLE NO.						
01	PB165144BL	89214	6.87	332852	8.15	187896	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDICCC040 Date Analyzed: 11/21/2024

Lab File ID: BF140532.D Time Analyzed: 12:58

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	437466	11.404	239343	14.051	211422	15.539
	UPPER LIMIT	874932	11.904	478686	14.551	422844	16.039
	LOWER LIMIT	218733	10.904	119672	13.551	105711	15.039
	EPA SAMPLE NO.						
01	PB165144BL	359986	11.40	208110	14.05	161923	15.54

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/21/2024

Lab File ID: BF140539.D Time Analyzed: 16:54

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	106707	6.875	411509	8.16	234805	9.91
	UPPER LIMIT	213414	7.375	823018	8.657	469610	10.41
	LOWER LIMIT	53353.5	6.375	205755	7.657	117403	9.41
	EPA SAMPLE NO.						
01	WC-11-A-202411	79300	6.87	290595	8.15	151253	9.90

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/21/2024

Lab File ID: BF140539.D Time Analyzed: 16:54

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	433198	11.404	229401	14.051	204401	15.539
	UPPER LIMIT	866396	11.904	458802	14.551	408802	16.039
	LOWER LIMIT	216599	10.904	114701	13.551	102201	15.039
	EPA SAMPLE NO.						
01	WC-11-A-202411	263635	11.40	156535	14.05	121189	15.53

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140590.D Time Analyzed: 09:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	105131	6.869	390145	8.15	212616	9.91
	UPPER LIMIT	210262	7.369	780290	8.651	425232	10.41
	LOWER LIMIT	52565.5	6.369	195073	7.651	106308	9.41
	EPA SAMPLE NO.						
01	PB165123TB	93544	6.87	358144	8.15	202721	9.90

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140590.D Time Analyzed: 09:33

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	399326	11.398	244297	14.051	211888	15.545
	UPPER LIMIT	798652	11.898	488594	14.551	423776	16.045
	LOWER LIMIT	199663	10.898	122149	13.551	105944	15.045
	EPA SAMPLE NO.						
01	PB165123TB	380338	11.40	213022	14.05	179936	15.55

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140604.D Time Analyzed: 15:49

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	106607	6.869	393427	8.15	218835	9.91
	UPPER LIMIT	213214	7.369	786854	8.651	437670	10.41
	LOWER LIMIT	53303.5	6.369	196714	7.651	109418	9.41
	EPA SAMPLE NO.						
01	WB-310-BOTMS	62131	6.87	221607	8.15	122175	9.91
02	WB-310-BOTMSD	68388	6.87	250576	8.15	136071	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/25/2024

Lab File ID: BF140604.D Time Analyzed: 15:49

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	396344	11.398	217927	14.051	192376	15.551
	UPPER LIMIT	792688	11.898	435854	14.551	384752	16.051
	LOWER LIMIT	198172	10.898	108964	13.551	96188	15.051
	EPA SAMPLE NO.						
01	WB-310-BOTMS	233749	11.40	142609	14.05	139916	15.54
02	WB-310-BOTMSD	265977	11.40	158457	14.05	154128	15.55

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/27/2024

Lab File ID: BF140655.D Time Analyzed: 08:47

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	98372	6.869	362566	8.15	198240	9.91
	UPPER LIMIT	196744	7.369	725132	8.651	396480	10.41
	LOWER LIMIT	49186	6.369	181283	7.651	99120	9.41
	EPA SAMPLE NO.						
01	PB165144BS	82046	6.87	308441	8.15	177190	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/27/2024

Lab File ID: BF140655.D Time Analyzed: 08:47

Instrument ID: BNA_F GC Column: DB-UI ID: 0.18 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	372253	11.398	233810	14.051	185431	15.545
	UPPER LIMIT	744506	11.898	467620	14.551	370862	16.045
	LOWER LIMIT	186127	10.898	116905	13.551	92715.5	15.045
	EPA SAMPLE NO.						
01	PB165144BS	338038	11.40	213188	14.05	167110	15.55

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165144BL	SDG No.:	P4921
Lab Sample ID:	PB165144BL	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140537.D	1	11/20/24 11:30	11/21/24 15:34	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	1.60	U	1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.84	U	0.84	5.00	ug/L
95-48-7	2-Methylphenol	1.10	U	1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	1.20	U	1.20	10.0	ug/L
67-72-1	Hexachloroethane	1.00	U	1.00	5.00	ug/L
98-95-3	Nitrobenzene	1.30	U	1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.30	U	1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	0.89	U	0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	1.00	U	1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	1.50	U	1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	1.10	U	1.10	5.00	ug/L
87-86-5	Pentachlorophenol	1.90	U	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	139		10 - 139	93%	SPK: 150
13127-88-3	Phenol-d6	135		10 - 134	90%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.9		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.1		52 - 132	95%	SPK: 100
118-79-6	2,4,6-Tribromophenol	133		44 - 137	89%	SPK: 150
1718-51-0	Terphenyl-d14	98.5		48 - 125	98%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	89200	6.869			
1146-65-2	Naphthalene-d8	333000	8.151			
15067-26-2	Acenaphthene-d10	188000	9.91			
1517-22-2	Phenanthrene-d10	360000	11.398			
1719-03-5	Chrysene-d12	208000	14.045			
1520-96-3	Perylene-d12	162000	15.539			

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Report of Analysis

Client:	AECOM			Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	
Client Sample ID:	PB165144BL			SDG No.:	P4921
Lab Sample ID:	PB165144BL			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140537.D	1	11/20/24 11:30	11/21/24 15:34	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165144BS	SDG No.:	P4921
Lab Sample ID:	PB165144BS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140659.D	1	11/20/24 11:30	11/27/24 10:30	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	49.6		1.60	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	46.6		0.84	5.00	ug/L
95-48-7	2-Methylphenol	49.8		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	49.2		1.20	10.0	ug/L
67-72-1	Hexachloroethane	46.8		1.00	5.00	ug/L
98-95-3	Nitrobenzene	45.8		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	46.0		1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	48.2		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	46.6		1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	49.1		1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	47.1		1.10	5.00	ug/L
87-86-5	Pentachlorophenol	97.1	E	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	137		10 - 139	92%	SPK: 150
13127-88-3	Phenol-d6	135		10 - 134	90%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.9		49 - 133	93%	SPK: 100
321-60-8	2-Fluorobiphenyl	91.7		52 - 132	92%	SPK: 100
118-79-6	2,4,6-Tribromophenol	140		44 - 137	93%	SPK: 150
1718-51-0	Terphenyl-d14	91.8		48 - 125	92%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82000	6.869			
1146-65-2	Naphthalene-d8	308000	8.151			
15067-26-2	Acenaphthene-d10	177000	9.91			
1517-22-2	Phenanthrene-d10	338000	11.398			
1719-03-5	Chrysene-d12	213000	14.051			
1520-96-3	Perylene-d12	167000	15.545			

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Report of Analysis

Client:	AECOM			Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	
Client Sample ID:	PB165144BS			SDG No.:	P4921
Lab Sample ID:	PB165144BS			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140659.D	1	11/20/24 11:30	11/27/24 10:30	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	AECOM	Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4921
Lab Sample ID:	P4892-03MS	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140613.D	1	11/20/24 11:30	11/25/24 19:52	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	400		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	320		8.40	50.0	ug/L
95-48-7	2-Methylphenol	470		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	470		11.5	100	ug/L
67-72-1	Hexachloroethane	300		10.1	50.0	ug/L
98-95-3	Nitrobenzene	440		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	380		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	520		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	520		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	540		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	510		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1200	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	132		10 - 139	88%	SPK: 150
13127-88-3	Phenol-d6	120		10 - 134	80%	SPK: 150
4165-60-0	Nitrobenzene-d5	99.5		49 - 133	100%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.8		52 - 132	97%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		44 - 137	106%	SPK: 150
1718-51-0	Terphenyl-d14	104		48 - 125	104%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	62100	6.869			
1146-65-2	Naphthalene-d8	222000	8.151			
15067-26-2	Acenaphthene-d10	122000	9.91			
1517-22-2	Phenanthrene-d10	234000	11.398			
1719-03-5	Chrysene-d12	143000	14.045			
1520-96-3	Perylene-d12	140000	15.539			

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Report of Analysis

Client:	AECOM			Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS			SDG No.:	P4921
Lab Sample ID:	P4892-03MS			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140613.D	1	11/20/24 11:30	11/25/24 19:52	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4921
Lab Sample ID:	P4892-03MSD	Matrix:	TCLP
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	100 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	TCLP BNA
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140614.D	1	11/20/24 11:30	11/25/24 20:18	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	370		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	290		8.40	50.0	ug/L
95-48-7	2-Methylphenol	430		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	440		11.5	100	ug/L
67-72-1	Hexachloroethane	280		10.1	50.0	ug/L
98-95-3	Nitrobenzene	400		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	350		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	480		8.90	50.0	ug/L
95-95-4	2,4,5-Trichlorophenol	480		10.1	50.0	ug/L
121-14-2	2,4-Dinitrotoluene	500		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	460		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1100	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	122		10 - 139	81%	SPK: 150
13127-88-3	Phenol-d6	111		10 - 134	74%	SPK: 150
4165-60-0	Nitrobenzene-d5	90.2		49 - 133	90%	SPK: 100
321-60-8	2-Fluorobiphenyl	89.0		52 - 132	89%	SPK: 100
118-79-6	2,4,6-Tribromophenol	144		44 - 137	96%	SPK: 150
1718-51-0	Terphenyl-d14	98.2		48 - 125	98%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	68400	6.869			
1146-65-2	Naphthalene-d8	251000	8.151			
15067-26-2	Acenaphthene-d10	136000	9.91			
1517-22-2	Phenanthrene-d10	266000	11.398			
1719-03-5	Chrysene-d12	158000	14.045			
1520-96-3	Perylene-d12	154000	15.545			

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Fax : 908 789 8922

Report of Analysis

Client:	AECOM			Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD			SDG No.:	P4921
Lab Sample ID:	P4892-03MSD			Matrix:	TCLP
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	100	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	TCLP BNA
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF140614.D	1	11/20/24 11:30	11/25/24 20:18	PB165144

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BF140528.D 5 =BF140529.D 10 =BF140530.D 20 =BF140531.D 40 =BF140532.D 50 =BF140533.D 60 =BF140534.D 80 =BF1405
35.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.501	0.502	0.576	0.489	0.452	0.454	0.477	0.493	8.46
3)		Pyridine		0.981	1.019	1.121	1.192	1.062	1.087	1.128	1.084	6.54
4)		n-Nitrosodimet...		0.616	0.611	0.661	0.648	0.632	0.632	0.660	0.637	3.15
5)	S	2-Fluorophenol		1.261	1.233	1.202	1.174	1.117	1.127	1.091	1.172	5.40
6)		Aniline		1.159	1.195	1.133	1.251	1.042	1.020	0.835	1.091	12.73
7)	S	Phenol-d6		1.729	1.617	1.559	1.602	1.465	1.470	1.407	1.550	7.14
8)		2-Chlorophenol		1.385	1.328	1.278	1.283	1.201	1.208	1.145	1.261	6.51
9)		Benzaldehyde			1.007	0.970	0.738	0.752	0.635		0.820	19.55
10)	C	Phenol		1.723	1.648	1.620	1.667	1.514	1.490	1.417	1.583	6.98
11)		bis(2-Chloroet...		1.292	1.242	1.214	1.246	1.146	1.200	1.138	1.211	4.56
12)		1,3-Dichlorobe...		1.600	1.493	1.433	1.399	1.345	1.361	1.288	1.417	7.31
13)	C	1,4-Dichlorobe...		1.613	1.501	1.456	1.428	1.358	1.372	1.314	1.435	7.04
14)		1,2-Dichlorobe...		1.503	1.434	1.375	1.355	1.268	1.266	1.210	1.344	7.71
15)		Benzyl Alcohol		1.234	1.174	1.161	1.224	1.113	1.090	1.048	1.149	5.98
16)		2,2'-oxybis(1-...		1.650	1.480	1.434	1.463	1.335	1.377	1.276	1.431	8.43
17)		2-Methylphenol		1.121	1.034	1.033	1.042	0.956	0.959	0.922	1.009	6.74
18)		Hexachloroethane		0.598	0.545	0.549	0.537	0.514	0.510	0.499	0.536	6.17
19)	P	n-Nitroso-di-n...	0.972	1.002	0.949	0.916	0.946	0.856	0.857	0.829	0.916	6.82
20)		3+4-Methylphenols		1.495	1.362	1.305	1.347	1.211	1.209	1.154	1.298	8.98
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.536	0.511	0.494	0.481	0.463	0.460	0.468	0.488	5.75
23)	S	Nitrobenzene-d5		0.409	0.403	0.395	0.392	0.377	0.377	0.383	0.391	3.21
24)		Nitrobenzene		0.439	0.409	0.409	0.401	0.388	0.391	0.392	0.404	4.35
25)		Isophorone		0.694	0.654	0.657	0.662	0.629	0.634	0.635	0.652	3.44
26)	C	2-Nitrophenol		0.178	0.172	0.185	0.180	0.178	0.180	0.180	0.179	2.17
27)		2,4-Dimethylph...		0.221	0.214	0.213	0.224	0.204	0.207	0.218	0.214	3.40
28)		bis(2-Chloroet...		0.428	0.408	0.403	0.397	0.378	0.384	0.383	0.397	4.37
29)	C	2,4-Dichloroph...		0.301	0.291	0.290	0.282	0.277	0.274	0.271	0.284	3.82
30)		1,2,4-Trichlor...		0.342	0.338	0.332	0.317	0.317	0.312	0.312	0.324	3.91
31)		Naphthalene		1.116	1.075	1.062	1.013	0.993	0.983	0.970	1.030	5.32
32)		Benzoic acid			0.101	0.126	0.177	0.185	0.192	0.202	0.164	24.72
33)		4-Chloroaniline		0.308	0.318	0.309	0.325	0.303	0.308	0.289	0.308	3.71
34)	C	Hexachlorobuta...		0.227	0.225	0.219	0.212	0.209	0.207	0.204	0.215	4.15
35)		Caprolactam		0.091	0.091	0.091	0.090	0.085	0.085	0.083	0.088	3.99
36)	C	4-Chloro-3-met...		0.348	0.318	0.317	0.327	0.307	0.307	0.301	0.318	4.95
37)		2-Methylnaphth...		0.724	0.680	0.669	0.650	0.623	0.620	0.615	0.654	6.09
38)		1-Methylnaphth...		0.707	0.665	0.659	0.638	0.611	0.608	0.601	0.641	5.98

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.635	0.604	0.606	0.563	0.561	0.565	0.565	0.586	5.02
41)	P	Hexachlorocycl...		0.055	0.090	0.114	0.121	0.129	0.133	0.107	27.80
42)	S	2,4,6-Tribromo...	0.222	0.209	0.220	0.216	0.210	0.210	0.211	0.214	2.52
43)	C	2,4,6-Trichlor...	0.384	0.358	0.375	0.366	0.364	0.360	0.365	0.367	2.45
44)		2,4,5-Trichlor...	0.402	0.396	0.410	0.404	0.390	0.397	0.392	0.399	1.80
45)	S	2-Fluorobiphenyl	1.550	1.402	1.423	1.291	1.255	1.240	1.235	1.342	8.90
46)		1,1'-Biphenyl	1.666	1.530	1.563	1.447	1.427	1.418	1.403	1.493	6.50
47)		2-Chloronaphth...	1.251	1.145	1.162	1.106	1.082	1.084	1.091	1.131	5.39
48)		2-Nitroaniline	0.367	0.351	0.379	0.367	0.363	0.357	0.359	0.363	2.50
49)		Acenaphthylene	1.890	1.765	1.808	1.662	1.628	1.623	1.590	1.710	6.58
50)		Dimethylphthalate	1.455	1.329	1.346	1.299	1.267	1.270	1.254	1.317	5.28
51)		2,6-Dinitrotol...	0.314	0.299	0.307	0.301	0.291	0.293	0.286	0.299	3.24
52)	C	Acenaphthene	1.182	1.110	1.134	1.063	1.052	1.037	1.026	1.086	5.29
53)		3-Nitroaniline	0.307	0.297	0.309	0.300	0.289	0.281	0.262	0.292	5.71
54)	P	2,4-Dinitrophenol		0.057	0.089	0.140	0.145	0.150	0.154	0.122	32.70
55)		Dibenzofuran	1.898	1.739	1.739	1.622	1.559	1.531	1.509	1.657	8.53
56)	P	4-Nitrophenol		0.160	0.195	0.207	0.212	0.214	0.208	0.199	10.31
57)		2,4-Dinitrotol...	0.403	0.403	0.416	0.404	0.386	0.389	0.379	0.397	3.24
58)		Fluorene	1.509	1.409	1.399	1.295	1.263	1.224	1.210	1.330	8.37
59)		2,3,4,6-Tetrac...	0.307	0.296	0.308	0.312	0.305	0.305	0.312	0.306	1.72
60)		Diethylphthalate	1.495	1.375	1.393	1.311	1.292	1.268	1.234	1.338	6.66
61)		4-Chlorophenyl...	0.739	0.682	0.685	0.639	0.619	0.605	0.599	0.653	7.90
62)		4-Nitroaniline	0.307	0.301	0.315	0.312	0.310	0.309	0.291	0.306	2.67
63)		Azobenzene	1.406	1.320	1.320	1.235	1.205	1.206	1.179	1.267	6.55
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.073	0.090	0.110	0.110	0.117	0.113	0.102	16.74
66)	c	n-Nitrosodiphe...	0.632	0.618	0.597	0.578	0.577	0.580	0.558	0.591	4.39
67)		4-Bromophenyl-...	0.218	0.215	0.206	0.200	0.200	0.205	0.198	0.206	3.79
68)		Hexachlorobenzene	0.257	0.240	0.239	0.233	0.232	0.236	0.232	0.238	3.65
69)		Atrazine	0.181	0.171	0.131	0.140	0.147	0.196	0.198	0.166	16.37
70)	C	Pentachlorophenol		0.071	0.090	0.116	0.115	0.121	0.118	0.105	19.24
71)		Phenanthrene	1.074	1.020	0.970	0.944	0.925	0.916	0.881	0.961	6.87
72)		Anthracene	1.038	0.994	0.958	0.925	0.905	0.904	0.859	0.940	6.47
73)		Carbazole	1.004	0.949	0.930	0.889	0.876	0.862	0.821	0.905	6.75
74)		Di-n-butylphth...	1.144	1.075	1.074	1.023	1.021	1.007	0.967	1.044	5.56
75)	C	Fluoranthene	1.186	1.111	1.114	1.014	0.999	0.962	0.921	1.044	9.11
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.268	0.422	0.296	0.575	0.734	1.025	0.751	0.581	47.31
78)		Pyrene	1.905	1.801	1.897	1.853	1.791	1.898	1.799	1.849	2.79
79)	S	Terphenyl-d14	1.351	1.254	1.308	1.283	1.228	1.313	1.254	1.284	3.31
80)		Butylbenzylpht...	0.676	0.644	0.694	0.679	0.655	0.674	0.641	0.666	2.96
81)		Benzo(a)anthra...	1.409	1.319	1.379	1.286	1.295	1.338	1.242	1.324	4.30
82)		3,3'-Dichlorob...	0.375	0.383	0.393	0.413	0.406	0.419	0.394	0.397	4.03
83)		Chrysene	1.354	1.263	1.218	1.201	1.137	1.173	1.128	1.211	6.50
84)		Bis(2-ethylhex...	0.904	0.828	0.862	0.833	0.824	0.841	0.797	0.841	4.00
85)	c	Di-n-octyl pht...	1.198	1.133	1.147	1.132	1.147	1.169	1.121	1.150	2.29

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.209	1.283	1.299	1.304	1.306	1.409	1.313	1.303	4.51
88)		Benzo(b)fluora...	1.347	1.256	1.380	1.186	1.248	1.207	1.168	1.256	6.41
89)		Benzo(k)fluora...	1.243	1.236	1.059	1.101	1.022	1.055	0.980	1.099	9.34
90)	C	Benzo(a)pyrene	1.062	1.050	1.063	1.007	0.998	1.014	0.957	1.021	3.81
91)		Dibenzo(a,h)an...	1.015	1.038	1.063	1.068	1.075	1.149	1.064	1.067	3.90
92)		Benzo(g,h,i)pe...	1.033	1.090	1.078	1.085	1.094	1.161	1.083	1.089	3.48

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG No.: P4921

Instrument ID: BNA_F Calibration Date/Time: 11/21/2024 16:54

Lab File ID: BF140539.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.084	1.199		10.6	
2-Fluorophenol	1.172	1.157		-1.3	
Phenol-d6	1.550	1.556		0.4	
1,4-Dichlorobenzene	1.435	1.386		-3.4	20.0
2-Methylphenol	1.010	1.024		1.4	
3+4-Methylphenols	1.298	1.347		3.8	
Nitrobenzene-d5	0.391	0.387		-1.0	
Hexachloroethane	0.536	0.531		-0.9	
Nitrobenzene	0.404	0.400		-1.0	
Hexachlorobutadiene	0.215	0.213		-0.9	20.0
2,4,6-Trichlorophenol	0.367	0.364		-0.8	20.0
2-Fluorobiphenyl	1.342	1.301		-3.1	
2,4,5-Trichlorophenol	0.399	0.404		1.3	
2,4-Dinitrotoluene	0.397	0.397		0.0	
2,4,6-Tribromophenol	0.214	0.210		-1.9	
Hexachlorobenzene	0.238	0.236		-0.8	
Pentachlorophenol	0.105	0.110		4.8	20.0
Terphenyl-d14	1.284	1.308		1.9	

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG No.: P4921

Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 09:33

Lab File ID: BF140590.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.084	1.124		3.7	
2-Fluorophenol	1.172	1.119		-4.5	
Phenol-d6	1.550	1.507		-2.8	
1,4-Dichlorobenzene	1.435	1.399		-2.5	20.0
2-Methylphenol	1.010	0.988		-2.2	
3+4-Methylphenols	1.298	1.252		-3.5	
Nitrobenzene-d5	0.391	0.377		-3.6	
Hexachloroethane	0.536	0.520		-3.0	
Nitrobenzene	0.404	0.386		-4.5	
Hexachlorobutadiene	0.215	0.212		-1.4	20.0
2,4,6-Trichlorophenol	0.367	0.368		0.3	20.0
2-Fluorobiphenyl	1.342	1.315		-2.0	
2,4,5-Trichlorophenol	0.399	0.405		1.5	
2,4-Dinitrotoluene	0.397	0.407		2.5	
2,4,6-Tribromophenol	0.214	0.210		-1.9	
Hexachlorobenzene	0.238	0.233		-2.1	
Pentachlorophenol	0.105	0.110		4.8	20.0
Terphenyl-d14	1.284	1.204		-6.2	

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG No.: P4921

Instrument ID: BNA_F Calibration Date/Time: 11/25/2024 15:49

Lab File ID: BF140604.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.084	1.248		15.1	
2-Fluorophenol	1.172	1.153		-1.6	
Phenol-d6	1.550	1.521		-1.9	
1,4-Dichlorobenzene	1.435	1.401		-2.4	20.0
2-Methylphenol	1.010	1.019		0.9	
3+4-Methylphenols	1.298	1.259		-3.0	
Nitrobenzene-d5	0.391	0.378		-3.3	
Hexachloroethane	0.536	0.521		-2.8	
Nitrobenzene	0.404	0.392		-3.0	
Hexachlorobutadiene	0.215	0.210		-2.3	20.0
2,4,6-Trichlorophenol	0.367	0.358		-2.5	20.0
2-Fluorobiphenyl	1.342	1.282		-4.5	
2,4,5-Trichlorophenol	0.399	0.395		-1.0	
2,4-Dinitrotoluene	0.397	0.389		-2.0	
2,4,6-Tribromophenol	0.214	0.206		-3.7	
Hexachlorobenzene	0.238	0.236		-0.8	
Pentachlorophenol	0.105	0.106		1.0	20.0
Terphenyl-d14	1.284	1.258		-2.0	

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG No.: P4921

Instrument ID: BNA_F Calibration Date/Time: 11/27/2024 08:47

Lab File ID: BF140655.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

GC Column: DB-UI ID: 0.18 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.084	1.166		7.6	
2-Fluorophenol	1.172	1.138		-2.9	
Phenol-d6	1.550	1.502		-3.1	
1,4-Dichlorobenzene	1.435	1.411		-1.7	20.0
2-Methylphenol	1.010	0.990		-2.0	
3+4-Methylphenols	1.298	1.258		-3.1	
Nitrobenzene-d5	0.391	0.379		-3.1	
Hexachloroethane	0.536	0.525		-2.1	
Nitrobenzene	0.404	0.388		-4.0	
Hexachlorobutadiene	0.215	0.210		-2.3	20.0
2,4,6-Trichlorophenol	0.367	0.354		-3.5	20.0
2-Fluorobiphenyl	1.342	1.300		-3.1	
2,4,5-Trichlorophenol	0.399	0.396		-0.8	
2,4-Dinitrotoluene	0.397	0.398		0.3	
2,4,6-Tribromophenol	0.214	0.207		-3.3	
Hexachlorobenzene	0.238	0.234		-1.7	
Pentachlorophenol	0.105	0.102		-2.9	20.0
Terphenyl-d14	1.284	1.162		-9.5	

All other compounds must meet a minimum RRF of 0.010.

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LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**TCLP**			**11/19/24**			**11/19/24**
			TCLP Pesticide	8081B		11/20/24	11/21/24	
			PCB	8082A		11/20/24	11/20/24	

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Hit Summary Sheet
SW-846

SDG No.: P4921 **Order ID:** P4921

Client: AECOM **Project ID:** Meeker Ave Plumes Superfund Site RI

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093202.D	1	11/20/24 12:00	11/21/24 12:08	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.049	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.054	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.090	U	0.090	0.50	ug/L
72-20-8	Endrin	0.043	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.11	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	1.50	U	1.50	10.0	ug/L
57-74-9	Chlordane	0.82	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	19.4		43 - 140	97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.5		77 - 126	102%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/20/24
Client Sample ID:	PB165123TB	SDG No.:	P4921
Lab Sample ID:	PB165123TB	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	SW3541B		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093198.D	1	11/20/24 12:00	11/21/24 11:15	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.049	U	0.049	0.50	ug/L
76-44-8	Heptachlor	0.054	U	0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	0.090	U	0.090	0.50	ug/L
72-20-8	Endrin	0.043	U	0.043	0.50	ug/L
72-43-5	Methoxychlor	0.11	U	0.11	0.50	ug/L
8001-35-2	Toxaphene	1.50	U	1.50	10.0	ug/L
57-74-9	Chlordane	0.82	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.3		43 - 140	111%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		77 - 126	106%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Surrogate Summary

SDG No.: P4921

Client: AECOM

Analytical Method: 8081B

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PL092652.D	PIBLK-PL092652.D	Decachlorobiphenyl	1	20	22.7	114		43	140
		Tetrachloro-m-xylene	1	20	21.6	108		77	126
		Decachlorobiphenyl	2	20	21.7	109		43	140
		Tetrachloro-m-xylene	2	20	20.4	102		77	126
I.BLK-PL093191.D	PIBLK-PL093191.D	Decachlorobiphenyl	1	20	19.6	98		43	140
		Tetrachloro-m-xylene	1	20	21.9	110		77	126
		Decachlorobiphenyl	2	20	21.3	106		43	140
		Tetrachloro-m-xylene	2	20	21.0	105		77	126
PB165164BL	PB165164BL	Decachlorobiphenyl	1	20	19.2	96		43	140
		Tetrachloro-m-xylene	1	20	20.6	103		77	126
		Decachlorobiphenyl	2	20	21.9	110		43	140
		Tetrachloro-m-xylene	2	20	19.5	98		77	126
PB165164BS	PB165164BS	Decachlorobiphenyl	1	20	19.9	99		43	140
		Tetrachloro-m-xylene	1	20	21.0	105		77	126
		Decachlorobiphenyl	2	20	21.7	109		43	140
		Tetrachloro-m-xylene	2	20	19.1	96		77	126
PB165123TB	PB165123TB	Decachlorobiphenyl	1	20	20.4	102		43	140
		Tetrachloro-m-xylene	1	20	21.1	106		77	126
		Decachlorobiphenyl	2	20	22.3	111		43	140
		Tetrachloro-m-xylene	2	20	19.8	99		77	126
P4892-03MS	WB-310-BOTMS	Decachlorobiphenyl	1	20	18.3	92		43	140
		Tetrachloro-m-xylene	1	20	20.3	102		77	126
		Decachlorobiphenyl	2	20	20.6	103		43	140
		Tetrachloro-m-xylene	2	20	18.4	92		77	126
P4892-03MSD	WB-310-BOTMSD	Decachlorobiphenyl	1	20	18.4	92		43	140
		Tetrachloro-m-xylene	1	20	19.8	99		77	126
		Decachlorobiphenyl	2	20	20.4	102		43	140
		Tetrachloro-m-xylene	2	20	18.1	90		77	126
P4921-01	WC-11-A-202411	Decachlorobiphenyl	1	20	17.4	87		43	140
		Tetrachloro-m-xylene	1	20	20.5	102		77	126
		Decachlorobiphenyl	2	20	19.4	97		43	140
		Tetrachloro-m-xylene	2	20	20.3	101		77	126
I.BLK-PL093210.D	PIBLK-PL093210.D	Decachlorobiphenyl	1	20	20.5	103		43	140
		Tetrachloro-m-xylene	1	20	21.9	109		77	126
		Decachlorobiphenyl	2	20	22.8	114		43	140
		Tetrachloro-m-xylene	2	20	21.0	105		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8081B **DataFile :** PL093200.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**WB-310-BOTMS**											
P4892-03MS	gamma-BHC (Lindane)	5	0	5.40	ug/L	108				60	152	
	Heptachlor	5	0	5.50	ug/L	110				56	147	
	Heptachlor epoxide	5	0	5.60	ug/L	112				77	143	
	Endrin	5	0	5.70	ug/L	114				76	144	
	Methoxychlor	5	0	5.40	ug/L	108				70	142	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8081B **DataFile :** PL093201.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Client Sample ID:	**WB-310-BOTMSD**											
P4892-03MSD	gamma-BHC (Lindane)	5	0	5.30	ug/L	106		2		60	152	20
	Heptachlor	5	0	5.40	ug/L	108		2		56	147	20
	Heptachlor epoxide	5	0	5.50	ug/L	110		2		77	143	20
	Endrin	5	0	5.70	ug/L	114		0		76	144	20
	Methoxychlor	5	0	5.30	ug/L	106		2		70	142	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8081B **Datafile :** PL093196.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165164BS	gamma-BHC (Lindane)	0.5	0.50	ug/L	100				82	129	
	Heptachlor	0.5	0.52	ug/L	104				79	127	
	Heptachlor epoxide	0.5	0.53	ug/L	106				81	124	
	Endrin	0.5	0.49	ug/L	99				81	128	
	Methoxychlor	0.5	0.50	ug/L	100				78	108	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165164BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab Sample ID: PB165164BL Lab File ID: PL093195.D

Matrix: (soil/water) water Extraction: (Type)

Sulfur Cleanup: (Y/N) N Date Extracted: 11/20/2024

Date Analyzed (1): 11/21/2024 Date Analyzed (2): 11/21/2024

Time Analyzed (1): 10:35 Time Analyzed (2): 10:35

Instrument ID (1): ECD_L Instrument ID (2): ECD_L

GC Column (1): ZB-MR2 ID: 0.32 (mm) GC Column (2): ZB-MR1 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB165164BS	PB165164BS	PL093196.D	11/21/2024	11/21/2024
PB165123TB	PB165123TB	PL093198.D	11/21/2024	11/21/2024
WB-310-BOTMS	P4892-03MS	PL093200.D	11/21/2024	11/21/2024
WB-310-BOTMSD	P4892-03MSD	PL093201.D	11/21/2024	11/21/2024
WC-11-A-202411	P4921-01	PL093202.D	11/21/2024	11/21/2024

COMMENTS:

QC SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165164BL	SDG No.:	P4921
Lab Sample ID:	PB165164BL	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093195.D	1	11/20/24 12:00	11/21/24 10:35	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.082	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.9		43 - 140	110%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.6		77 - 126	103%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	10/28/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	10/28/24
Client Sample ID:	PIBLK-PL092652.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PL092652.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL092652.D	1		10/28/24	PL102824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.082	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.7		43 - 140	114%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.6		77 - 126	108%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
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J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/21/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/21/24
Client Sample ID:	PIBLK-PL093191.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PL093191.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093191.D	1		11/21/24	PL112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.082	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.3		43 - 140	106%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		77 - 126	110%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	11/21/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/21/24
Client Sample ID:	PIBLK-PL093210.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PL093210.D	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093210.D	1		11/21/24	PL112124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.0049	U	0.0049	0.050	ug/L
76-44-8	Heptachlor	0.0054	U	0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.0090	U	0.0090	0.050	ug/L
72-20-8	Endrin	0.0043	U	0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.011	U	0.011	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.082	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	22.8		43 - 140	114%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.9		77 - 126	109%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165164BS	SDG No.:	P4921
Lab Sample ID:	PB165164BS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093196.D	1	11/20/24 12:00	11/21/24 10:48	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	0.50		0.0049	0.050	ug/L
76-44-8	Heptachlor	0.52		0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.53		0.0090	0.050	ug/L
72-20-8	Endrin	0.49		0.0043	0.050	ug/L
72-43-5	Methoxychlor	0.50		0.011	0.050	ug/L
8001-35-2	Toxaphene	0.15	U	0.15	1.00	ug/L
57-74-9	Chlordane	0.082	U	0.082	0.50	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	21.7		43 - 140	109%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.0		77 - 126	105%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4921
Lab Sample ID:	P4892-03MS	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093200.D	1	11/20/24 12:00	11/21/24 11:41	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.40		0.049	0.50	ug/L
76-44-8	Heptachlor	5.50		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.60		0.090	0.50	ug/L
72-20-8	Endrin	5.70		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.40		0.11	0.50	ug/L
8001-35-2	Toxaphene	1.50	U	1.50	10.0	ug/L
57-74-9	Chlordane	0.82	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.6		43 - 140	103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.3		77 - 126	102%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4921
Lab Sample ID:	P4892-03MSD	Matrix:	TCLP
Analytical Method:	SW8081	% Solid:	0 Decanted:
Sample Wt/Vol:	100 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	TCLP Pesticide
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PL093201.D	1	11/20/24 12:00	11/21/24 11:54	PB165164

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.30		0.049	0.50	ug/L
76-44-8	Heptachlor	5.40		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.50		0.090	0.50	ug/L
72-20-8	Endrin	5.70		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.30		0.11	0.50	ug/L
8001-35-2	Toxaphene	1.50	U	1.50	10.0	ug/L
57-74-9	Chlordane	0.82	U	0.82	5.00	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	20.4		43 - 140	102%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.8		77 - 126	99%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L **Calibration Date(s):** 10/28/2024 10/28/2024

Calibration Times: 14:43 15:36

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL092655.D RT 075 = PL092656.D

RT 050 = PL092657.D RT 025 = PL092658.D RT 005 = PL092659.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
Endrin	6.58	6.58	6.57	6.57	6.57	6.57	6.47	6.67
gamma-BHC (Lindane)	4.33	4.33	4.33	4.33	4.33	4.33	4.23	4.43
Heptachlor	4.92	4.92	4.92	4.92	4.92	4.92	4.82	5.02
Heptachlor epoxide	5.69	5.69	5.68	5.69	5.68	5.68	5.58	5.78
Methoxychlor	7.50	7.50	7.50	7.50	7.50	7.50	7.40	7.60
Tetrachloro-m-xylene	3.54	3.54	3.54	3.54	3.54	3.54	3.44	3.64

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L **Calibration Date(s):** 10/28/2024 10/28/2024

Calibration Times: 14:43 15:36

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 100 = PL092655.D RT 075 = PL092656.D

RT 050 = PL092657.D RT 025 = PL092658.D RT 005 = PL092659.D

COMPOUND	RT 100	RT 075	RT 050	RT 025	RT 005	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Decachlorobiphenyl	7.92	7.92	7.92	7.92	7.92	7.92	7.82	8.02
Endrin	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
gamma-BHC (Lindane)	3.61	3.61	3.61	3.61	3.61	3.61	3.51	3.71
Heptachlor	3.95	3.95	3.95	3.95	3.95	3.95	3.85	4.05
Heptachlor epoxide	4.73	4.73	4.73	4.73	4.73	4.73	4.63	4.83
Methoxychlor	6.61	6.62	6.62	6.62	6.61	6.61	6.51	6.71
Tetrachloro-m-xylene	2.78	2.78	2.78	2.78	2.78	2.78	2.68	2.88

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L

Calibration Date(s): 10/28/2024 10/28/2024

Calibration Times: 14:43 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL092655.D **CF 075 =** PL092656.D

CF 050 = PL092657.D **CF 025 =** PL092658.D **CF 005 =** PL092659.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	1738840000	1756630000	1819720000	1998760000	2308800000	1924550000	12
Endrin	2111540000	2103000000	2121260000	2324460000	2723040000	2276660000	12
gamma-BHC (Lindane)	3198960000	3133030000	3104430000	3278360000	3583040000	3259560000	6
Heptachlor	2817300000	2795570000	2829220000	3064000000	3509480000	3003110000	10
Heptachlor epoxide	2536240000	2521530000	2566410000	2821600000	3361270000	2761410000	13
Methoxychlor	1040530000	1050870000	1078280000	1189160000	1341160000	1140000000	11
Tetrachloro-m-xylene	2319350000	2304070000	2328420000	2512350000	2786990000	2450240000	8

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L **Calibration Date(s):** 10/28/2024 10/28/2024

Calibration Times: 14:43 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 100 =** PL092655.D **CF 075 =** PL092656.D

CF 050 = PL092657.D **CF 025 =** PL092658.D **CF 005 =** PL092659.D

COMPOUND	CF 100	CF 075	CF 050	CF 025	CF 005	CF	% RSD
Decachlorobiphenyl	2606810000	2575500000	2605540000	2793460000	3064890000	2729240000	8
Endrin	2969490000	2878380000	2828080000	2876210000	2912860000	2893010000	2
gamma-BHC (Lindane)	4083950000	3934430000	3833920000	3828430000	3616530000	3859450000	4
Heptachlor	3876200000	3766580000	3709120000	3779090000	3738650000	3773930000	2
Heptachlor epoxide	3405420000	3318630000	3272090000	3352830000	3358060000	3341410000	1
Methoxychlor	1400820000	1385450000	1393920000	1470360000	1489590000	1428030000	3
Tetrachloro-m-xylene	2724750000	2661560000	2643180000	2728430000	2847900000	2721160000	3

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L **Date(s) Analyzed:** 10/28/2024 10/28/2024

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	4.70	4.60	4.80	106996000
		2	5.23	5.13	5.33	110397000
		3	5.94	5.84	6.04	372388000
		4	6.02	5.92	6.12	458405000
		5	6.87	6.77	6.97	92161100
Toxaphene	500	1	6.24	6.14	6.34	23962400
		2	6.44	6.34	6.54	13823600
		3	7.06	6.96	7.16	79159800
		4	7.15	7.05	7.25	59803700
		5	7.93	7.83	8.03	45329200

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_L **Date(s) Analyzed:** 10/28/2024 10/28/2024

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Chlordane	500	1	3.78	3.68	3.88	105092000
		2	4.35	4.25	4.45	120641000
		3	4.98	4.88	5.08	361048000
		4	5.05	4.95	5.15	346821000
		5	5.94	5.84	6.04	124060000
Toxaphene	500	1	5.01	4.91	5.11	19952700
		2	5.33	5.23	5.43	19749600
		3	6.61	6.51	6.71	70222500
		4	6.73	6.63	6.83	98337700
		5	7.05	6.95	7.15	65479700

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/21/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 09:51 **Initial Calibration Time(s):** 14:43 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.00
Heptachlor	4.91	4.92	4.82	5.02	0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/21/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 09:51 **Initial Calibration Time(s):** 14:43 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.92	7.92	7.82	8.02	0.01
Tetrachloro-m-xylene	2.77	2.78	2.68	2.88	0.01
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.62	6.52	6.72	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/21/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093193.D **Time Analyzed:** 09:51

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.057	8.954	9.154	45.380	50.000	-9.2
Endrin	6.572	6.474	6.674	43.030	50.000	-13.9
gamma-BHC (Lindane)	4.326	4.228	4.428	49.920	50.000	-0.2
Heptachlor	4.914	4.817	5.017	47.490	50.000	-5.0
Heptachlor epoxide	5.683	5.584	5.784	47.140	50.000	-5.7
Methoxychlor	7.500	7.399	7.599	41.800	50.000	-16.4
Tetrachloro-m-xylene	3.537	3.440	3.640	50.810	50.000	1.6

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/21/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093193.D **Time Analyzed:** 09:51

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.915	7.816	8.016	50.970	50.000	1.9
Endrin	5.638	5.541	5.741	50.120	50.000	0.2
gamma-BHC (Lindane)	3.607	3.511	3.711	52.430	50.000	4.9
Heptachlor	3.946	3.849	4.049	50.860	50.000	1.7
Heptachlor epoxide	4.728	4.632	4.832	52.370	50.000	4.7
Methoxychlor	6.613	6.515	6.715	47.990	50.000	-4.0
Tetrachloro-m-xylene	2.774	2.678	2.878	51.270	50.000	2.5

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/21/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 15:07 **Initial Calibration Time(s):** 14:43 15:36

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	9.06	9.05	8.95	9.15	-0.01
Tetrachloro-m-xylene	3.54	3.54	3.44	3.64	0.00
gamma-BHC (Lindane)	4.33	4.33	4.23	4.43	0.01
Heptachlor	4.91	4.92	4.82	5.02	0.01
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.57	6.57	6.47	6.67	0.00
Methoxychlor	7.50	7.50	7.40	7.60	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/21/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 15:07 **Initial Calibration Time(s):** 14:43 15:36

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Decachlorobiphenyl	7.91	7.92	7.82	8.02	0.01
Tetrachloro-m-xylene	2.77	2.78	2.68	2.88	0.01
gamma-BHC (Lindane)	3.61	3.61	3.51	3.71	0.00
Heptachlor	3.95	3.95	3.85	4.05	0.00
Heptachlor epoxide	4.73	4.73	4.63	4.83	0.00
Endrin	5.64	5.64	5.54	5.74	0.00
Methoxychlor	6.61	6.62	6.52	6.72	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/21/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093211.D **Time Analyzed:** 15:07

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.058	8.954	9.154	46.110	50.000	-7.8
Endrin	6.572	6.474	6.674	44.290	50.000	-11.4
gamma-BHC (Lindane)	4.325	4.228	4.428	50.530	50.000	1.1
Heptachlor	4.914	4.817	5.017	47.570	50.000	-4.9
Heptachlor epoxide	5.682	5.584	5.784	47.490	50.000	-5.0
Methoxychlor	7.500	7.399	7.599	42.470	50.000	-15.1
Tetrachloro-m-xylene	3.536	3.440	3.640	51.100	50.000	2.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/21/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093211.D **Time Analyzed:** 15:07

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.914	7.816	8.016	51.630	50.000	3.3
Endrin	5.638	5.541	5.741	50.460	50.000	0.9
gamma-BHC (Lindane)	3.607	3.511	3.711	52.440	50.000	4.9
Heptachlor	3.946	3.849	4.049	50.770	50.000	1.5
Heptachlor epoxide	4.728	4.632	4.832	52.850	50.000	5.7
Methoxychlor	6.612	6.515	6.715	48.280	50.000	-3.4
Tetrachloro-m-xylene	2.774	2.678	2.878	51.250	50.000	2.5

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No. (PEM): PEM - PL092653.D **Date Analyzed:** 10/28/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 14:16

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.059	8.960	9.160	19.970	20.000	-0.2
Tetrachloro-m-xylene	3.546	3.500	3.600	19.290	20.000	-3.6
alpha-BHC	4.001	3.950	4.050	9.920	10.000	-0.8
beta-BHC	4.531	4.480	4.580	10.060	10.000	0.6
gamma-BHC (Lindane)	4.334	4.280	4.380	9.660	10.000	-3.4
Endrin	6.580	6.510	6.650	41.060	50.000	-17.9
4,4'-DDT	7.030	6.960	7.100	88.060	100.000	-11.9
Methoxychlor	7.505	7.430	7.580	204.090	250.000	-18.4

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No. (PEM): PEM - PL092653.D **Date Analyzed:** 10/28/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 14:16

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.918	7.820	8.020	19.080	20.000	-4.6
Tetrachloro-m-xylene	2.778	2.730	2.830	18.500	20.000	-7.5
alpha-BHC	3.281	3.230	3.330	8.630	10.000	-13.7
beta-BHC	3.911	3.860	3.960	9.760	10.000	-2.4
gamma-BHC (Lindane)	3.611	3.560	3.660	8.390	10.000	-16.1
Endrin	5.643	5.570	5.710	44.130	50.000	-11.7
4,4'-DDT	6.042	5.970	6.110	98.070	100.000	-1.9
Methoxychlor	6.616	6.550	6.690	225.800	250.000	-9.7

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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No. (PEM): PEM - PL093192.D **Date Analyzed:** 11/21/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.059	8.960	9.160	19.070	20.000	-4.7
Tetrachloro-m-xylene	3.537	3.490	3.590	22.160	20.000	10.8
alpha-BHC	3.993	3.940	4.040	11.320	10.000	13.2
beta-BHC	4.524	4.470	4.570	11.310	10.000	13.1
gamma-BHC (Lindane)	4.325	4.270	4.380	11.050	10.000	10.5
Endrin	6.574	6.500	6.640	42.510	50.000	-15.0
4,4'-DDT	7.024	6.950	7.090	86.170	100.000	-13.8
Methoxychlor	7.501	7.430	7.570	198.410	250.000	-20.6

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 10/28/2024 10/28/2024

Client Sample No. (PEM): PEM - PL093192.D **Date Analyzed:** 11/21/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 09:38

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.915	7.810	8.020	21.550	20.000	7.8
Tetrachloro-m-xylene	2.774	2.720	2.820	21.310	20.000	6.6
alpha-BHC	3.277	3.230	3.330	10.230	10.000	2.3
beta-BHC	3.907	3.860	3.960	11.220	10.000	12.2
gamma-BHC (Lindane)	3.607	3.560	3.660	9.850	10.000	-1.5
Endrin	5.639	5.570	5.710	49.050	50.000	-1.9
4,4'-DDT	6.038	5.970	6.110	105.860	100.000	5.9
Methoxychlor	6.613	6.540	6.680	241.900	250.000	-3.2

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Analytical Sequence

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **Instrument ID:** ECD_L

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 10/28/2024 10/28/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	10/28/2024	13:55	PL092652.D	9.05	3.54
PEM	PEM	10/28/2024	14:16	PL092653.D	9.06	3.55
RESCHK	RESCHK	10/28/2024	14:29	PL092654.D	9.05	3.54
PSTDICC100	PSTDICC100	10/28/2024	14:43	PL092655.D	9.05	3.54
PSTDICC075	PSTDICC075	10/28/2024	14:56	PL092656.D	9.05	3.54
PSTDICC050	PSTDICC050	10/28/2024	15:09	PL092657.D	9.05	3.54
PSTDICC025	PSTDICC025	10/28/2024	15:23	PL092658.D	9.05	3.54
PSTDICC005	PSTDICC005	10/28/2024	15:36	PL092659.D	9.05	3.54
PCHLORICC500	PCHLORICC500	10/28/2024	16:16	PL092662.D	9.06	3.54
PTOXICC500	PTOXICC500	10/28/2024	17:23	PL092667.D	9.05	3.54
I.BLK	I.BLK	11/21/2024	09:25	PL093191.D	9.06	3.54
PEM	PEM	11/21/2024	09:38	PL093192.D	9.06	3.54
PSTDCCC050	PSTDCCC050	11/21/2024	09:51	PL093193.D	9.06	3.54
PB165164BL	PB165164BL	11/21/2024	10:35	PL093195.D	9.06	3.54
PB165164BS	PB165164BS	11/21/2024	10:48	PL093196.D	9.06	3.54
PB165123TB	PB165123TB	11/21/2024	11:15	PL093198.D	9.06	3.54
WB-310-BOTMS	P4892-03MS	11/21/2024	11:41	PL093200.D	9.06	3.54
WB-310-BOTMSD	P4892-03MSD	11/21/2024	11:54	PL093201.D	9.06	3.54
WC-11-A-202411	P4921-01	11/21/2024	12:08	PL093202.D	9.06	3.54
I.BLK	I.BLK	11/21/2024	14:53	PL093210.D	9.06	3.54
PSTDCCC050	PSTDCCC050	11/21/2024	15:07	PL093211.D	9.06	3.54

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Analytical Sequence

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **Instrument ID:** ECD_L

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 10/28/2024 10/28/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	10/28/2024	13:55	PL092652.D	7.92	2.78
PEM	PEM	10/28/2024	14:16	PL092653.D	7.92	2.78
RESCHK	RESCHK	10/28/2024	14:29	PL092654.D	7.92	2.78
PSTDICC100	PSTDICC100	10/28/2024	14:43	PL092655.D	7.92	2.78
PSTDICC075	PSTDICC075	10/28/2024	14:56	PL092656.D	7.92	2.78
PSTDICC050	PSTDICC050	10/28/2024	15:09	PL092657.D	7.92	2.78
PSTDICC025	PSTDICC025	10/28/2024	15:23	PL092658.D	7.92	2.78
PSTDICC005	PSTDICC005	10/28/2024	15:36	PL092659.D	7.92	2.78
PCHLORICC500	PCHLORICC500	10/28/2024	16:16	PL092662.D	7.92	2.78
PTOXICC500	PTOXICC500	10/28/2024	17:23	PL092667.D	7.92	2.78
I.BLK	I.BLK	11/21/2024	09:25	PL093191.D	7.92	2.78
PEM	PEM	11/21/2024	09:38	PL093192.D	7.92	2.77
PSTDCCC050	PSTDCCC050	11/21/2024	09:51	PL093193.D	7.92	2.77
PB165164BL	PB165164BL	11/21/2024	10:35	PL093195.D	7.92	2.77
PB165164BS	PB165164BS	11/21/2024	10:48	PL093196.D	7.92	2.77
PB165123TB	PB165123TB	11/21/2024	11:15	PL093198.D	7.92	2.77
WB-310-BOTMS	P4892-03MS	11/21/2024	11:41	PL093200.D	7.91	2.77
WB-310-BOTMSD	P4892-03MSD	11/21/2024	11:54	PL093201.D	7.91	2.77
WC-11-A-202411	P4921-01	11/21/2024	12:08	PL093202.D	7.91	2.77
I.BLK	I.BLK	11/21/2024	14:53	PL093210.D	7.92	2.77
PSTDCCC050	PSTDCCC050	11/21/2024	15:07	PL093211.D	7.91	2.77

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB165164BS

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Lab Sample ID: PB165164BS **Date(s) Analyzed:** 11/21/2024 11/21/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	0.43	14
	2	6.61	6.56	6.66	0.50	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	0.48	4.1
	2	3.61	3.56	3.66	0.50	
Heptachlor	1	4.91	4.86	4.96	0.49	6.3
	2	3.95	3.90	4.00	0.52	
Heptachlor epoxide	1	5.68	5.63	5.73	0.47	11.6
	2	4.73	4.68	4.78	0.53	
Endrin	1	6.57	6.52	6.62	0.42	16.5
	2	5.64	5.59	5.69	0.49	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
WB-310-BOTMS

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Lab Sample ID: P4892-03MS **Date(s) Analyzed:** 11/21/2024 11/21/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	4.70	13.9
	2	6.61	6.56	6.66	5.40	
gamma-BHC (Lindane)	1	4.32	4.27	4.37	5.00	7.7
	2	3.61	3.56	3.66	5.40	
Heptachlor	1	4.91	4.86	4.96	5.10	7.5
	2	3.95	3.90	4.00	5.50	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	11.3
	2	4.73	4.68	4.78	5.60	
Endrin	1	6.57	6.52	6.62	4.80	17.1
	2	5.64	5.59	5.69	5.70	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
WB-310-BOTMSD

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Lab Sample ID: P4892-03MSD **Date(s) Analyzed:** 11/21/2024 11/21/2024

Instrument ID (1): ECD_L **Instrument ID (2):** ECD_L

GC Column: (1): ZB-MR2 **ID:** 0.32 (mm) **GC Column:(2):** ZB-MR1 **ID:** 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Methoxychlor	1	7.50	7.45	7.55	4.60	14.1
	2	6.61	6.56	6.66	5.30	
gamma-BHC (Lindane)	1	4.32	4.27	4.37	5.00	5.8
	2	3.61	3.56	3.66	5.30	
Heptachlor	1	4.91	4.86	4.96	5.10	5.7
	2	3.95	3.90	4.00	5.40	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	9.5
	2	4.73	4.68	4.78	5.50	
Endrin	1	6.57	6.52	6.62	4.80	17.1
	2	5.64	5.59	5.69	5.70	

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LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**WATER**			**11/19/24**			**11/19/24**
			PCB	8082A		11/20/24	11/20/24	

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Hit Summary Sheet
SW-846

SDG No.: P4921 **Order ID:** P4921

Client: AECOM **Project ID:** Meeker Ave Plumes Superfund Site RI

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID :

Total Concentration: 0.000

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	AECOM	Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	990 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108158.D	1	11/20/24 08:35	11/20/24 22:05	PB165133

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.51	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.51	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.51	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.51	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.51	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.51	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.51	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.51	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.51	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.4		10 - 157	107%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.5		10 - 173	113%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

QC SUMMARY

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Surrogate Summary

SDG No.: P4921

Client: AECOM

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO108037.D	PIBLK-PO108037.D	Tetrachloro-m-xylene	1	20	21.2	106		60	140
		Decachlorobiphenyl	1	20	23.2	116		60	140
		Tetrachloro-m-xylene	2	20	21.0	105		60	140
		Decachlorobiphenyl	2	20	22.5	112		60	140
I.BLK-PO108153.D	PIBLK-PO108153.D	Tetrachloro-m-xylene	1	20	23.1	116		60	140
		Decachlorobiphenyl	1	20	25.0	125		60	140
		Tetrachloro-m-xylene	2	20	23.2	116		60	140
		Decachlorobiphenyl	2	20	22.0	110		60	140
PB165133BL	PB165133BL	Tetrachloro-m-xylene	1	20	21.7	108		10	157
		Decachlorobiphenyl	1	20	23.8	119		10	173
		Tetrachloro-m-xylene	2	20	21.6	108		10	157
		Decachlorobiphenyl	2	20	20.9	105		10	173
PB165133BS	PB165133BS	Tetrachloro-m-xylene	1	20	22.1	111		10	157
		Decachlorobiphenyl	1	20	23.9	120		10	173
		Tetrachloro-m-xylene	2	20	20.8	104		10	157
		Decachlorobiphenyl	2	20	20.9	104		10	173
PB165133BSD	PB165133BSD	Tetrachloro-m-xylene	1	20	22.2	111		10	157
		Decachlorobiphenyl	1	20	23.7	119		10	173
		Tetrachloro-m-xylene	2	20	20.8	104		10	157
		Decachlorobiphenyl	2	20	20.9	104		10	173
P4921-01	WC-11-A-202411	Tetrachloro-m-xylene	1	20	21.1	106		10	157
		Decachlorobiphenyl	1	20	22.5	113		10	173
		Tetrachloro-m-xylene	2	20	21.4	107		10	157
		Decachlorobiphenyl	2	20	19.8	99		10	173
I.BLK-PO108163.D	PIBLK-PO108163.D	Tetrachloro-m-xylene	1	20	23.4	117		60	140
		Decachlorobiphenyl	1	20	26.2	131		60	140
		Tetrachloro-m-xylene	2	20	23.2	116		60	140
		Decachlorobiphenyl	2	20	23.3	117		60	140

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8082A **Datafile :** PO108155.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165133BS	AR1016	5	4.90	ug/L	98				61	112	
	AR1260	5	4.90	ug/L	98				66	113	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4921

Client: AECOM

Analytical Method: 8082A **Datafile :** PO108156.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165133BSD	AR1016	5	4.90	ug/L	98	0			61	112	20
	AR1260	5	4.90	ug/L	98	0			66	113	20

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165133BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4921 SAS No.: P4921 SDG NO.: P4921

Lab Sample ID: PB165133BL Lab File ID: PO108154.D

Matrix: (soil/water) WATER Extraction: (Type)

Sulfur Cleanup: (Y/N) N Date Extracted: 11/20/2024

Date Analyzed (1): 11/20/2024 Date Analyzed (2): 11/20/2024

Time Analyzed (1): 21:00 Time Analyzed (2): 21:00

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB165133BS	PB165133BS	PO108155.D	11/20/2024	11/20/2024
PB165133BSD	PB165133BSD	PO108156.D	11/20/2024	11/20/2024
WC-11-A-202411	P4921-01	PO108158.D	11/20/2024	11/20/2024

COMMENTS:

CALIBRATION SUMMARY

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Calibration Date(s):** 11/18/2024 11/18/2024

Calibration Times: 15:32 22:51

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108038.D RT 750 = PO108039.D

RT 500 = PO108040.D RT 250 = PO108041.D RT 050 = PO108042.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.53	5.53	5.53	5.52	5.53	5.53	5.43	5.63
Aroclor-1016-2	(2)	5.55	5.55	5.55	5.55	5.55	5.55	5.45	5.65
Aroclor-1016-3	(3)	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Aroclor-1016-4	(4)	5.71	5.71	5.71	5.71	5.71	5.71	5.61	5.81
Aroclor-1016-5	(5)	6.01	6.00	6.00	6.00	6.00	6.00	5.90	6.10
Aroclor-1260-1	(1)	7.14	7.14	7.14	7.14	7.14	7.14	7.04	7.24
Aroclor-1260-2	(2)	7.40	7.39	7.40	7.39	7.39	7.39	7.29	7.49
Aroclor-1260-3	(3)	7.76	7.76	7.76	7.76	7.76	7.76	7.66	7.86
Aroclor-1260-4	(4)	7.98	7.98	7.98	7.98	7.98	7.98	7.88	8.08
Aroclor-1260-5	(5)	8.30	8.30	8.30	8.30	8.30	8.30	8.20	8.40
Decachlorobiphenyl		10.09	10.09	10.09	10.09	10.09	10.09	9.99	10.19
Tetrachloro-m-xylene		4.37	4.37	4.37	4.37	4.37	4.37	4.27	4.47
Aroclor-1242-1	(1)	5.53	5.53	5.53	5.53	5.53	5.53	5.43	5.63
Aroclor-1242-2	(2)	5.55	5.55	5.55	5.55	5.55	5.55	5.45	5.65
Aroclor-1242-3	(3)	5.61	5.61	5.61	5.61	5.61	5.61	5.51	5.71
Aroclor-1242-4	(4)	5.71	5.71	5.71	5.71	5.71	5.71	5.61	5.81
Aroclor-1242-5	(5)	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Decachlorobiphenyl		10.09	10.09	10.09	10.09	10.09	10.09	9.99	10.19
Tetrachloro-m-xylene		4.37	4.37	4.37	4.37	4.37	4.37	4.27	4.47
Aroclor-1248-1	(1)	5.53	5.52	5.53	5.53	5.53	5.53	5.43	5.63
Aroclor-1248-2	(2)	5.80	5.80	5.80	5.80	5.80	5.80	5.70	5.90
Aroclor-1248-3	(3)	6.00	6.00	6.00	6.00	6.00	6.00	5.90	6.10
Aroclor-1248-4	(4)	6.41	6.41	6.41	6.41	6.41	6.41	6.31	6.51
Aroclor-1248-5	(5)	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Decachlorobiphenyl		10.09	10.09	10.09	10.09	10.09	10.09	9.99	10.19
Tetrachloro-m-xylene		4.37	4.37	4.37	4.37	4.37	4.37	4.27	4.47
Aroclor-1254-1	(1)	6.38	6.38	6.38	6.38	6.38	6.38	6.28	6.48
Aroclor-1254-2	(2)	6.60	6.60	6.60	6.60	6.60	6.60	6.50	6.70
Aroclor-1254-3	(3)	6.97	6.97	6.97	6.97	6.97	6.97	6.87	7.07
Aroclor-1254-4	(4)	7.26	7.26	7.25	7.26	7.25	7.26	7.16	7.36
Aroclor-1254-5	(5)	7.68	7.68	7.68	7.68	7.68	7.68	7.58	7.78
Decachlorobiphenyl		10.09	10.09	10.09	10.09	10.09	10.09	9.99	10.19
Tetrachloro-m-xylene		4.37	4.37	4.37	4.37	4.37	4.37	4.27	4.47

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Calibration Date(s):** 11/18/2024 11/18/2024

Calibration Times: 15:32 22:51

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO108038.D RT 750 = PO108039.D

RT 500 = PO108040.D RT 250 = PO108041.D RT 050 = PO108042.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.72	4.72	4.72	4.72	4.72	4.72	4.62	4.82
Aroclor-1016-2	(2)	4.74	4.74	4.74	4.74	4.74	4.74	4.64	4.84
Aroclor-1016-3	(3)	4.91	4.92	4.92	4.92	4.92	4.92	4.82	5.02
Aroclor-1016-4	(4)	4.96	4.96	4.96	4.96	4.96	4.96	4.86	5.06
Aroclor-1016-5	(5)	5.17	5.17	5.17	5.17	5.17	5.17	5.07	5.27
Aroclor-1260-1	(1)	6.20	6.20	6.20	6.20	6.20	6.20	6.10	6.30
Aroclor-1260-2	(2)	6.39	6.39	6.39	6.39	6.39	6.39	6.29	6.49
Aroclor-1260-3	(3)	6.54	6.54	6.54	6.54	6.54	6.54	6.44	6.64
Aroclor-1260-4	(4)	7.01	7.01	7.01	7.01	7.01	7.01	6.91	7.11
Aroclor-1260-5	(5)	7.25	7.25	7.25	7.25	7.25	7.25	7.15	7.35
Decachlorobiphenyl		8.64	8.63	8.64	8.63	8.64	8.64	8.54	8.74
Tetrachloro-m-xylene		3.64	3.64	3.64	3.64	3.64	3.64	3.54	3.74
Aroclor-1242-1	(1)	4.72	4.72	4.72	4.72	4.72	4.72	4.62	4.82
Aroclor-1242-2	(2)	4.74	4.74	4.74	4.74	4.74	4.74	4.64	4.84
Aroclor-1242-3	(3)	4.91	4.91	4.92	4.92	4.92	4.92	4.82	5.02
Aroclor-1242-4	(4)	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.10
Aroclor-1242-5	(5)	5.52	5.52	5.52	5.52	5.52	5.52	5.42	5.62
Decachlorobiphenyl		8.63	8.63	8.63	8.64	8.64	8.63	8.53	8.73
Tetrachloro-m-xylene		3.64	3.64	3.64	3.64	3.64	3.64	3.54	3.74
Aroclor-1248-1	(1)	4.72	4.72	4.72	4.72	4.72	4.72	4.62	4.82
Aroclor-1248-2	(2)	4.96	4.96	4.96	4.96	4.96	4.96	4.86	5.06
Aroclor-1248-3	(3)	5.00	5.00	5.00	5.00	5.00	5.00	4.90	5.10
Aroclor-1248-4	(4)	5.17	5.17	5.17	5.17	5.17	5.17	5.07	5.27
Aroclor-1248-5	(5)	5.56	5.56	5.56	5.56	5.56	5.56	5.46	5.66
Decachlorobiphenyl		8.64	8.63	8.64	8.63	8.64	8.63	8.53	8.73
Tetrachloro-m-xylene		3.64	3.64	3.64	3.64	3.64	3.64	3.54	3.74
Aroclor-1254-1	(1)	5.52	5.52	5.52	5.52	5.52	5.52	5.42	5.62
Aroclor-1254-2	(2)	5.67	5.67	5.67	5.67	5.67	5.67	5.57	5.77
Aroclor-1254-3	(3)	6.07	6.07	6.07	6.07	6.07	6.07	5.97	6.17
Aroclor-1254-4	(4)	6.30	6.30	6.30	6.30	6.30	6.30	6.20	6.40
Aroclor-1254-5	(5)	6.72	6.72	6.72	6.72	6.72	6.72	6.62	6.82
Decachlorobiphenyl		8.64	8.64	8.63	8.64	8.64	8.64	8.54	8.74
Tetrachloro-m-xylene		3.64	3.64	3.64	3.64	3.64	3.64	3.54	3.74

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Calibration Date(s):** 11/18/2024 11/18/2024

Calibration Times: 15:32 22:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 1000 =** PO108038.D **CF 750 =** PO108039.D

CF 500 = PO108040.D **CF 250 =** PO108041.D **CF 050 =** PO108042.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	246762638	255183097	267973476	283317680	291399940	268927366	7
Aroclor-1016-2	(2)	361906701	371340893	387074982	408562964	409480900	387673288	6
Aroclor-1016-3	(3)	222622001	230895227	242997188	262828576	290224400	249913478	11
Aroclor-1016-4	(4)	180908655	187263399	196564780	208828236	202781360	195269286	6
Aroclor-1016-5	(5)	172054377	178657919	188464708	198508344	189466020	185430274	6
Aroclor-1260-1	(1)	247038034	257258523	276155998	300356752	291432540	274448369	8
Aroclor-1260-2	(2)	272689813	275156095	291862946	311284092	264022160	283003021	7
Aroclor-1260-3	(3)	196571881	200863216	216965512	232635324	227109120	214829011	7
Aroclor-1260-4	(4)	206067217	211502581	224665900	236880824	230926000	222008504	6
Aroclor-1260-5	(5)	361568828	367344987	386082756	401302256	391367100	381533185	4
Decachlorobiphenyl		2788452830	2899237187	3078698780	3257210480	3247383800	3054196615	7
Tetrachloro-m-xylene		8465605050	8620290680	8898313680	9030365440	8515879800	8706090930	3
Aroclor-1242-1	(1)	202566328	209266423	216968960	226834060	251201700	221367494	9
Aroclor-1242-2	(2)	292414213	300976153	306906846	326944128	345266040	314501476	7
Aroclor-1242-3	(3)	180504553	188122379	204296224	206704844	232713180	202468236	10
Aroclor-1242-4	(4)	145573082	151871127	147856924	161129744	174130240	156112223	7
Aroclor-1242-5	(5)	141458429	150487075	174887798	165575256	171811960	160844104	9
Decachlorobiphenyl		2883024050	2993599120	3112238920	3347716960	3290585400	3125432890	6
Tetrachloro-m-xylene		8474998350	8554163053	8448632340	8865007800	8445940200	8557748349	2
Aroclor-1248-1	(1)	159118922	161357184	172663464	181852748	193964860	173791436	8
Aroclor-1248-2	(2)	223667475	232366575	244148502	257041984	245312320	240507371	5
Aroclor-1248-3	(3)	235052357	249913948	255721754	270339584	271390180	256483565	6
Aroclor-1248-4	(4)	254865791	270625609	276970026	290980956	271389120	272966300	5
Aroclor-1248-5	(5)	250852362	264749787	277140996	291546208	270671600	270992191	6
Decachlorobiphenyl		3055844430	3212426880	3323854080	3502784880	3470872200	3313156494	6
Tetrachloro-m-xylene		8617109190	8960264667	8973068820	9149151720	8598975400	8859713959	3
Aroclor-1254-1	(1)	252273984	264379132	273757404	293053280	301432280	276979216	7
Aroclor-1254-2	(2)	370718764	381771509	401517756	431022924	452397520	407485695	8
Aroclor-1254-3	(3)	371029833	378293709	395728354	413498008	404266220	392563225	5
Aroclor-1254-4	(4)	258988770	265852057	279911766	295707108	295222320	279136404	6
Aroclor-1254-5	(5)	253254357	260982649	273964622	289085188	263893220	268236007	5
Decachlorobiphenyl		3053184730	3175475907	3371258020	3559677880	3473166600	3326552627	6
Tetrachloro-m-xylene		8676286000	8781692213	9032518320	9252845040	8520211800	8852710675	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Calibration Date(s):** 11/18/2024 11/18/2024

Calibration Times: 15:32 22:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

LAB FILE ID: **CF 1000 =** PO108038.D **CF 750 =** PO108039.D

CF 500 = PO108040.D **CF 250 =** PO108041.D **CF 050 =** PO108042.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	106788150	108798153	111718164	113509520	105554920	109273781	3
Aroclor-1016-2	(2)	152123024	154097571	158326228	159327316	140638080	152902444	5
Aroclor-1016-3	(3)	80988346	82315700	85055114	86482700	75979360	82164244	5
Aroclor-1016-4	(4)	61290280	63322112	65890902	67513476	60347000	63672754	5
Aroclor-1016-5	(5)	83859555	84976180	88574978	90258120	85814880	86696743	3
Aroclor-1260-1	(1)	157781272	160281296	165675998	168803692	157161680	161940788	3
Aroclor-1260-2	(2)	193178496	195374557	201955632	205123576	188687800	196864012	3
Aroclor-1260-3	(3)	183308515	185530125	190617304	192222592	178946180	186124943	3
Aroclor-1260-4	(4)	158006285	159976592	164422288	165515456	152052260	159994576	3
Aroclor-1260-5	(5)	397600161	398299031	405738120	401770156	360054820	392692458	5
Decachlorobiphenyl		3329333650	3376455133	3495318160	3542281840	3265178400	3401713437	3
Tetrachloro-m-xylene		3460288000	3499045520	3533194380	3490778200	2968782600	3390417740	7
Aroclor-1242-1	(1)	87969741	88248992	87758754	93432100	85060960	88494109	3
Aroclor-1242-2	(2)	124351775	125884719	122342024	129672256	115828860	123615927	4
Aroclor-1242-3	(3)	66089426	66658731	64420492	69305104	64944480	66283647	3
Aroclor-1242-4	(4)	61409091	62399051	61772248	66049176	61264060	62578725	3
Aroclor-1242-5	(5)	80580818	81655216	82065824	87619560	85982300	83580744	4
Decachlorobiphenyl		3376553600	3460953067	3489794800	3599195960	3335440400	3452387565	3
Tetrachloro-m-xylene		3506478780	3524758680	3390143240	3493295680	3130140400	3408963356	5
Aroclor-1248-1	(1)	67026994	69560969	69998122	71628912	68826780	69408355	2
Aroclor-1248-2	(2)	89376189	93801245	94712640	97706412	91207920	93360881	3
Aroclor-1248-3	(3)	94788893	98911040	100115740	103278720	96514280	98721735	3
Aroclor-1248-4	(4)	115527324	120128197	120921898	125233548	119364180	120235029	3
Aroclor-1248-5	(5)	119804627	123323009	123889724	128054636	128073460	124629091	3
Decachlorobiphenyl		3528559440	3596963560	3616896320	3663454400	3377244800	3556623704	3
Tetrachloro-m-xylene		3528541860	3631159893	3583888800	3559804240	3171920200	3495062999	5
Aroclor-1254-1	(1)	174289834	176158589	180893068	186013588	167948420	177060700	4
Aroclor-1254-2	(2)	150108724	152943737	157672006	163048368	154480520	155650671	3
Aroclor-1254-3	(3)	256239069	259520284	265457534	269328112	244789800	259066960	4
Aroclor-1254-4	(4)	157049736	150166115	151648294	150255064	114987000	144821242	12
Aroclor-1254-5	(5)	226514935	228906973	235035164	238147696	216555420	229032038	4
Decachlorobiphenyl		3488739090	3567821253	3665438080	3726867560	3437434800	3577260157	3
Tetrachloro-m-xylene		3561296690	3571149600	3637431600	3609953440	3188991400	3513764546	5

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Date(s) Analyzed:** 11/18/2024 11/18/2024

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1268	50	1	8.61	8.51	8.71	502834000
		2	8.70	8.60	8.80	444314000
		3	8.93	8.83	9.03	373678000
		4	9.34	9.24	9.44	168510000
		5	9.75	9.65	9.85	1104980000
Aroclor-1221	500	1	4.57	4.47	4.67	108422000
		2	4.66	4.56	4.76	80468200
		3	4.73	4.63	4.83	233076000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.73	4.63	4.83	171958000
		2	5.26	5.16	5.36	94164000
		3	5.55	5.45	5.65	161766000
		4	5.71	5.61	5.81	76393000
		5	5.80	5.70	5.90	52874400
Aroclor-1262	500	1	7.76	7.66	7.86	323292000
		2	8.30	8.20	8.40	449988000
		3	8.61	8.51	8.71	288986000
		4	8.70	8.60	8.80	223132000
		5	9.34	9.24	9.44	152022000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Instrument ID: ECD_O **Date(s) Analyzed:** 11/18/2024 11/18/2024

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1268	50	1	7.54	7.44	7.64	449116000
		2	7.60	7.50	7.70	407712000
		3	7.81	7.71	7.91	338330000
		4	8.09	7.99	8.19	157016000
		5	8.38	8.28	8.48	1125950000
Aroclor-1221	500	1	3.85	3.75	3.95	35476800
		2	3.94	3.84	4.04	29137000
		3	4.01	3.91	4.11	89032800
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.01	3.91	4.11	63710600
		2	4.74	4.64	4.84	64827200
		3	4.91	4.81	5.01	33220400
		4	5.00	4.90	5.10	30291200
		5	5.17	5.07	5.27	31376600
Aroclor-1262	500	1	6.75	6.65	6.85	227544000
		2	7.25	7.15	7.35	426902000
		3	7.54	7.44	7.64	165111000
		4	7.60	7.50	7.70	317924000
		5	8.09	7.99	8.19	148021000

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/20/2024 **Initial Calibration Date(s):** 11/18/2024 11/18/2024

Continuing Calib Time: 19:38 **Initial Calibration Time(s):** 15:32 22:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	5.53	5.53	5.43	5.63	0.00
Aroclor-1016-2	(2)	5.55	5.55	5.45	5.65	0.00
Aroclor-1016-3	(3)	5.61	5.61	5.51	5.71	0.00
Aroclor-1016-4	(4)	5.71	5.71	5.61	5.81	0.00
Aroclor-1016-5	(5)	6.00	6.00	5.90	6.10	0.00
Aroclor-1260-1	(1)	7.14	7.14	7.04	7.24	0.00
Aroclor-1260-2	(2)	7.40	7.40	7.30	7.50	0.01
Aroclor-1260-3	(3)	7.76	7.76	7.66	7.86	0.00
Aroclor-1260-4	(4)	7.98	7.98	7.88	8.08	0.00
Aroclor-1260-5	(5)	8.30	8.30	8.20	8.40	0.00
Tetrachloro-m-xylene		4.37	4.37	4.27	4.47	0.00
Decachlorobiphenyl		10.09	10.09	9.99	10.19	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/20/2024 **Initial Calibration Date(s):** 11/18/2024 11/18/2024

Continuing Calib Time: 19:38 **Initial Calibration Time(s):** 15:32 22:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	4.72	4.72	4.62	4.82	0.00
Aroclor-1016-2	(2)	4.74	4.74	4.64	4.84	0.00
Aroclor-1016-3	(3)	4.91	4.92	4.82	5.02	0.01
Aroclor-1016-4	(4)	4.96	4.96	4.86	5.06	0.00
Aroclor-1016-5	(5)	5.17	5.17	5.07	5.27	0.00
Aroclor-1260-1	(1)	6.20	6.20	6.10	6.30	0.00
Aroclor-1260-2	(2)	6.39	6.39	6.29	6.49	0.00
Aroclor-1260-3	(3)	6.54	6.54	6.44	6.64	0.00
Aroclor-1260-4	(4)	7.01	7.01	6.91	7.11	0.00
Aroclor-1260-5	(5)	7.25	7.25	7.15	7.35	0.00
Tetrachloro-m-xylene		3.64	3.64	3.54	3.74	0.00
Decachlorobiphenyl		8.63	8.64	8.54	8.74	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 11/18/2024 11/18/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/20/2024

Lab Sample No.: AR1660CCC500 **Data File :** PO108149.D **Time Analyzed:** 19:38

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.526	5.425	5.625	528.630	500.000	5.7
Aroclor-1016-2	5.549	5.447	5.647	520.240	500.000	4.0
Aroclor-1016-3	5.611	5.510	5.710	513.970	500.000	2.8
Aroclor-1016-4	5.708	5.607	5.807	521.170	500.000	4.2
Aroclor-1016-5	6.004	5.904	6.104	514.630	500.000	2.9
Aroclor-1260-1	7.138	7.037	7.237	518.810	500.000	3.8
Aroclor-1260-2	7.395	7.295	7.495	545.340	500.000	9.1
Aroclor-1260-3	7.759	7.658	7.858	520.170	500.000	4.0
Aroclor-1260-4	7.984	7.884	8.084	517.420	500.000	3.5
Aroclor-1260-5	8.300	8.198	8.398	525.890	500.000	5.2
Decachlorobiphenyl	10.093	9.991	10.191	50.960	50.000	1.9
Tetrachloro-m-xylene	4.371	4.270	4.470	53.830	50.000	7.7

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 11/18/2024 11/18/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/20/2024

Lab Sample No.: AR1660CCC500 **Data File :** PO108149.D **Time Analyzed:** 19:38

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.719	4.620	4.820	547.380	500.000	9.5
Aroclor-1016-2	4.738	4.639	4.839	545.840	500.000	9.2
Aroclor-1016-3	4.914	4.815	5.015	540.160	500.000	8.0
Aroclor-1016-4	4.956	4.856	5.056	518.270	500.000	3.7
Aroclor-1016-5	5.168	5.070	5.270	554.520	500.000	10.9
Aroclor-1260-1	6.200	6.100	6.300	547.210	500.000	9.4
Aroclor-1260-2	6.387	6.288	6.488	534.890	500.000	7.0
Aroclor-1260-3	6.541	6.441	6.641	524.600	500.000	4.9
Aroclor-1260-4	7.012	6.912	7.112	520.030	500.000	4.0
Aroclor-1260-5	7.253	7.154	7.354	511.160	500.000	2.2
Decachlorobiphenyl	8.633	8.535	8.735	47.130	50.000	-5.7
Tetrachloro-m-xylene	3.638	3.539	3.739	55.980	50.000	12.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/20/2024 **Initial Calibration Date(s):** 11/18/2024 11/18/2024

Continuing Calib Time: 23:06 **Initial Calibration Time(s):** 15:32 22:51

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	RT WINDOW TO	DIFF RT
Aroclor-1016-1	(1)	5.53	5.53	5.43	5.63	0.00
Aroclor-1016-2	(2)	5.55	5.55	5.45	5.65	0.00
Aroclor-1016-3	(3)	5.61	5.61	5.51	5.71	0.00
Aroclor-1016-4	(4)	5.71	5.71	5.61	5.81	0.00
Aroclor-1016-5	(5)	6.01	6.00	5.90	6.10	-0.01
Aroclor-1260-1	(1)	7.14	7.14	7.04	7.24	0.00
Aroclor-1260-2	(2)	7.40	7.40	7.30	7.50	0.00
Aroclor-1260-3	(3)	7.76	7.76	7.66	7.86	0.00
Aroclor-1260-4	(4)	7.99	7.98	7.88	8.08	-0.01
Aroclor-1260-5	(5)	8.30	8.30	8.20	8.40	0.00
Tetrachloro-m-xylene		4.37	4.37	4.27	4.47	0.00
Decachlorobiphenyl		10.10	10.09	9.99	10.19	-0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

Continuing Calib Date: 11/20/2024 **Initial Calibration Date(s):** 11/18/2024 11/18/2024

Continuing Calib Time: 23:06 **Initial Calibration Time(s):** 15:32 22:51

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.72	4.72	4.62	4.82	0.00
Aroclor-1016-2	(2)	4.74	4.74	4.64	4.84	0.00
Aroclor-1016-3	(3)	4.91	4.92	4.82	5.02	0.01
Aroclor-1016-4	(4)	4.96	4.96	4.86	5.06	0.00
Aroclor-1016-5	(5)	5.17	5.17	5.07	5.27	0.00
Aroclor-1260-1	(1)	6.20	6.20	6.10	6.30	0.00
Aroclor-1260-2	(2)	6.39	6.39	6.29	6.49	0.00
Aroclor-1260-3	(3)	6.54	6.54	6.44	6.64	0.00
Aroclor-1260-4	(4)	7.01	7.01	6.91	7.11	0.00
Aroclor-1260-5	(5)	7.25	7.25	7.15	7.35	0.00
Tetrachloro-m-xylene		3.64	3.64	3.54	3.74	0.00
Decachlorobiphenyl		8.64	8.64	8.54	8.74	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 11/18/2024 11/18/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/20/2024

Lab Sample No.: AR1660CCC500 **Data File :** PO108159.D **Time Analyzed:** 23:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.526	5.425	5.625	545.410	500.000	9.1
Aroclor-1016-2	5.548	5.447	5.647	539.240	500.000	7.8
Aroclor-1016-3	5.611	5.510	5.710	531.900	500.000	6.4
Aroclor-1016-4	5.708	5.607	5.807	546.420	500.000	9.3
Aroclor-1016-5	6.005	5.904	6.104	552.530	500.000	10.5
Aroclor-1260-1	7.138	7.037	7.237	546.400	500.000	9.3
Aroclor-1260-2	7.397	7.295	7.495	577.560	500.000	15.5
Aroclor-1260-3	7.760	7.658	7.858	556.610	500.000	11.3
Aroclor-1260-4	7.985	7.884	8.084	559.850	500.000	12.0
Aroclor-1260-5	8.301	8.198	8.398	566.220	500.000	13.2
Decachlorobiphenyl	10.097	9.991	10.191	53.910	50.000	7.8
Tetrachloro-m-xylene	4.371	4.270	4.470	56.130	50.000	12.3

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4921 **SAS No.:** P4921 **SDG NO.:** P4921

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 11/18/2024 11/18/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/20/2024

Lab Sample No.: AR1660CCC500 **Data File :** PO108159.D **Time Analyzed:** 23:06

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.719	4.620	4.820	547.280	500.000	9.5
Aroclor-1016-2	4.738	4.639	4.839	549.370	500.000	9.9
Aroclor-1016-3	4.914	4.815	5.015	546.590	500.000	9.3
Aroclor-1016-4	4.956	4.856	5.056	532.480	500.000	6.5
Aroclor-1016-5	5.169	5.070	5.270	557.300	500.000	11.5
Aroclor-1260-1	6.200	6.100	6.300	549.930	500.000	10.0
Aroclor-1260-2	6.388	6.288	6.488	546.610	500.000	9.3
Aroclor-1260-3	6.541	6.441	6.641	538.450	500.000	7.7
Aroclor-1260-4	7.013	6.912	7.112	537.050	500.000	7.4
Aroclor-1260-5	7.254	7.154	7.354	536.090	500.000	7.2
Decachlorobiphenyl	8.636	8.535	8.735	50.810	50.000	1.6
Tetrachloro-m-xylene	3.638	3.539	3.739	56.020	50.000	12.0

Alliance TECHNICAL GROUP
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Analytical Sequence

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **Instrument ID:** ECD_O

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 11/18/2024 11/18/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	11/18/2024	15:16	PO108037.D	10.09	4.37
AR1660ICC1000	AR1660ICC1000	11/18/2024	15:32	PO108038.D	10.09	4.37
AR1660ICC750	AR1660ICC750	11/18/2024	15:48	PO108039.D	10.09	4.37
AR1660ICC500	AR1660ICC500	11/18/2024	16:05	PO108040.D	10.09	4.37
AR1660ICC250	AR1660ICC250	11/18/2024	16:21	PO108041.D	10.09	4.37
AR1660ICC050	AR1660ICC050	11/18/2024	16:37	PO108042.D	10.09	4.37
AR1221ICC500	AR1221ICC500	11/18/2024	16:53	PO108043.D	10.09	4.37
AR1232ICC500	AR1232ICC500	11/18/2024	17:09	PO108044.D	10.09	4.37
AR1242ICC1000	AR1242ICC1000	11/18/2024	17:25	PO108045.D	10.09	4.37
AR1242ICC750	AR1242ICC750	11/18/2024	17:42	PO108046.D	10.09	4.37
AR1242ICC500	AR1242ICC500	11/18/2024	17:58	PO108047.D	10.09	4.37
AR1242ICC250	AR1242ICC250	11/18/2024	18:14	PO108048.D	10.09	4.37
AR1242ICC050	AR1242ICC050	11/18/2024	18:30	PO108049.D	10.09	4.37
AR1248ICC1000	AR1248ICC1000	11/18/2024	18:47	PO108050.D	10.09	4.37
AR1248ICC750	AR1248ICC750	11/18/2024	19:03	PO108051.D	10.09	4.37
AR1248ICC500	AR1248ICC500	11/18/2024	19:19	PO108052.D	10.09	4.37
AR1248ICC250	AR1248ICC250	11/18/2024	19:35	PO108053.D	10.09	4.37
AR1248ICC050	AR1248ICC050	11/18/2024	19:51	PO108054.D	10.09	4.37
AR1254ICC1000	AR1254ICC1000	11/18/2024	20:07	PO108055.D	10.09	4.37
AR1254ICC750	AR1254ICC750	11/18/2024	20:24	PO108056.D	10.09	4.37
AR1254ICC500	AR1254ICC500	11/18/2024	20:40	PO108057.D	10.09	4.37
AR1254ICC250	AR1254ICC250	11/18/2024	20:56	PO108058.D	10.09	4.37
AR1254ICC050	AR1254ICC050	11/18/2024	21:12	PO108059.D	10.09	4.37
AR1262ICC500	AR1262ICC500	11/18/2024	21:28	PO108060.D	10.09	4.37
AR1268ICC1000	AR1268ICC1000	11/18/2024	21:45	PO108061.D	10.09	4.37
AR1268ICC750	AR1268ICC750	11/18/2024	22:02	PO108062.D	10.09	4.37
AR1268ICC500	AR1268ICC500	11/18/2024	22:19	PO108063.D	10.09	4.37
AR1268ICC250	AR1268ICC250	11/18/2024	22:35	PO108064.D	10.09	4.37
AR268ICC050	AR268ICC050	11/18/2024	22:51	PO108065.D	10.09	4.37
AR1660CCC500	AR1660CCC500	11/20/2024	19:38	PO108149.D	10.09	4.37
I.BLK	I.BLK	11/20/2024	20:44	PO108153.D	10.10	4.37
PB165133BL	PB165133BL	11/20/2024	21:00	PO108154.D	10.09	4.37
PB165133BS	PB165133BS	11/20/2024	21:16	PO108155.D	10.09	4.37
PB165133BSD	PB165133BSD	11/20/2024	21:33	PO108156.D	10.09	4.37
WC-11-A-202411	P4921-01	11/20/2024	22:05	PO108158.D	10.10	4.37
AR1660CCC500	AR1660CCC500	11/20/2024	23:06	PO108159.D	10.10	4.37
I.BLK	I.BLK	11/21/2024	00:12	PO108163.D	10.09	4.37

Alliance TECHNICAL GROUP
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Analytical Sequence

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **Instrument ID:** ECD_O

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 11/18/2024 11/18/2024

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	11/18/2024	15:16	PO108037.D	8.64	3.64
AR1660ICC1000	AR1660ICC1000	11/18/2024	15:32	PO108038.D	8.64	3.64
AR1660ICC750	AR1660ICC750	11/18/2024	15:48	PO108039.D	8.63	3.64
AR1660ICC500	AR1660ICC500	11/18/2024	16:05	PO108040.D	8.64	3.64
AR1660ICC250	AR1660ICC250	11/18/2024	16:21	PO108041.D	8.63	3.64
AR1660ICC050	AR1660ICC050	11/18/2024	16:37	PO108042.D	8.64	3.64
AR1221ICC500	AR1221ICC500	11/18/2024	16:53	PO108043.D	8.63	3.64
AR1232ICC500	AR1232ICC500	11/18/2024	17:09	PO108044.D	8.63	3.64
AR1242ICC1000	AR1242ICC1000	11/18/2024	17:25	PO108045.D	8.63	3.64
AR1242ICC750	AR1242ICC750	11/18/2024	17:42	PO108046.D	8.63	3.64
AR1242ICC500	AR1242ICC500	11/18/2024	17:58	PO108047.D	8.63	3.64
AR1242ICC250	AR1242ICC250	11/18/2024	18:14	PO108048.D	8.64	3.64
AR1242ICC050	AR1242ICC050	11/18/2024	18:30	PO108049.D	8.64	3.64
AR1248ICC1000	AR1248ICC1000	11/18/2024	18:47	PO108050.D	8.64	3.64
AR1248ICC750	AR1248ICC750	11/18/2024	19:03	PO108051.D	8.63	3.64
AR1248ICC500	AR1248ICC500	11/18/2024	19:19	PO108052.D	8.64	3.64
AR1248ICC250	AR1248ICC250	11/18/2024	19:35	PO108053.D	8.63	3.64
AR1248ICC050	AR1248ICC050	11/18/2024	19:51	PO108054.D	8.64	3.64
AR1254ICC1000	AR1254ICC1000	11/18/2024	20:07	PO108055.D	8.64	3.64
AR1254ICC750	AR1254ICC750	11/18/2024	20:24	PO108056.D	8.64	3.64
AR1254ICC500	AR1254ICC500	11/18/2024	20:40	PO108057.D	8.63	3.64
AR1254ICC250	AR1254ICC250	11/18/2024	20:56	PO108058.D	8.64	3.64
AR1254ICC050	AR1254ICC050	11/18/2024	21:12	PO108059.D	8.64	3.64
AR1262ICC500	AR1262ICC500	11/18/2024	21:28	PO108060.D	8.63	3.64
AR1268ICC1000	AR1268ICC1000	11/18/2024	21:45	PO108061.D	8.64	3.64
AR1268ICC750	AR1268ICC750	11/18/2024	22:02	PO108062.D	8.64	3.64
AR1268ICC500	AR1268ICC500	11/18/2024	22:19	PO108063.D	8.63	3.64
AR1268ICC250	AR1268ICC250	11/18/2024	22:35	PO108064.D	8.63	3.64
AR268ICC050	AR268ICC050	11/18/2024	22:51	PO108065.D	8.63	3.64
AR1660CCC500	AR1660CCC500	11/20/2024	19:38	PO108149.D	8.63	3.64
I.BLK	I.BLK	11/20/2024	20:44	PO108153.D	8.63	3.64
PB165133BL	PB165133BL	11/20/2024	21:00	PO108154.D	8.63	3.64
PB165133BS	PB165133BS	11/20/2024	21:16	PO108155.D	8.63	3.64
PB165133BSD	PB165133BSD	11/20/2024	21:33	PO108156.D	8.64	3.64
WC-11-A-202411	P4921-01	11/20/2024	22:05	PO108158.D	8.63	3.64
AR1660CCC500	AR1660CCC500	11/20/2024	23:06	PO108159.D	8.64	3.64
I.BLK	I.BLK	11/21/2024	00:12	PO108163.D	8.64	3.64

QC SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165133BL	SDG No.:	P4921
Lab Sample ID:	PB165133BL	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108154.D	1	11/20/24 08:35	11/20/24 21:00	PB165133

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.7		10 - 157	108%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.8		10 - 173	119%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/18/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/18/24
Client Sample ID:	PIBLK-PO108037.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PO108037.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108037.D	1		11/18/24	PO111824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	21.0		60 - 140	105%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.5		60 - 140	112%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	11/20/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/20/24
Client Sample ID:	PIBLK-PO108153.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PO108153.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108153.D	1		11/20/24	PO112024

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.1		60 - 140	116%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.0		60 - 140	110%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	11/21/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/21/24
Client Sample ID:	PIBLK-PO108163.D	SDG No.:	P4921
Lab Sample ID:	I.BLK-PO108163.D	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	5030		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108163.D	1		11/21/24	PO112024

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.15	U	0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
11096-82-5	Aroclor-1260	0.15	U	0.15	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	23.2		60 - 140	116%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.3		60 - 140	117%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165133BS	SDG No.:	P4921
Lab Sample ID:	PB165133BS	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108155.D	1	11/20/24 08:35	11/20/24 21:16	PB165133

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	4.90		0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
11096-82-5	Aroclor-1260	4.90		0.15	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.1		10 - 157	111%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.9		10 - 173	120%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165133BSD	SDG No.:	P4921
Lab Sample ID:	PB165133BSD	Matrix:	WATER
Analytical Method:	SW8082A	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		
Prep Method :	3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO108156.D	1	11/20/24 08:35	11/20/24 21:33	PB165133

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	4.90		0.15	0.50	ug/L
11104-28-2	Aroclor-1221	0.23	U	0.23	0.50	ug/L
11141-16-5	Aroclor-1232	0.37	U	0.37	0.50	ug/L
53469-21-9	Aroclor-1242	0.16	U	0.16	0.50	ug/L
12672-29-6	Aroclor-1248	0.12	U	0.12	0.50	ug/L
11097-69-1	Aroclor-1254	0.11	U	0.11	0.50	ug/L
37324-23-5	Aroclor-1262	0.14	U	0.14	0.50	ug/L
11100-14-4	Aroclor-1268	0.12	U	0.12	0.50	ug/L
11096-82-5	Aroclor-1260	4.90		0.15	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	22.2		10 - 157	111%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.7		10 - 173	119%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**TCLP**			**11/19/24**			**11/19/24**
			TCLP ICP Metals	6010D		11/20/24	11/21/24	
			TCLP Mercury	7470A		11/20/24	11/22/24	

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Hit Summary Sheet
SW-846

SDG No.:	P4921	**Order ID:**	P4921
Client:	AECOM	**Project ID:**	Meeker Ave Plumes Superfund Site RI FS

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WC-11-A-202411								
P4921-01	WC-11-A-202411	TCLP	Barium	101	J	62.8	500	ug/L

SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Report of Analysis

Client:	AECOM	Date Collected:	11/19/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	34.8	U	1	34.8	100	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7440-39-3	Barium	101	J	1	62.8	500	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7440-43-9	Cadmium	0.94	U	1	0.94	30.0	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7440-47-3	Chromium	6.60	U	1	6.60	50.0	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7439-92-1	Lead	35.1	U	1	35.1	60.0	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7439-97-6	Mercury	0.81	U	1	0.81	2.00	ug/L	11/20/24 12:12	11/22/24 09:18	SW7470A	
7782-49-2	Selenium	58.8	U	1	58.8	100	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050
7440-22-4	Silver	5.80	U	1	5.80	50.0	ug/L	11/20/24 11:15	11/21/24 17:18	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP METALS				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV97	Mercury	3.65	4.0	91	90 - 110	CV	11/22/2024	08:52	LB133570

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV31	Mercury	5.22	5.0	104	90 - 110	CV	11/22/2024	08:57	LB133570
CCV32	Mercury	5.03	5.0	101	90 - 110	CV	11/22/2024	09:30	LB133570
CCV33	Mercury	4.88	5.0	98	90 - 110	CV	11/22/2024	09:57	LB133570
CCV34	Mercury	4.92	5.0	98	90 - 110	CV	11/22/2024	10:27	LB133570
CCV35	Mercury	5.39	5.0	108	90 - 110	CV	11/22/2024	10:47	LB133570
CCV36	Mercury	5.31	5.0	106	90 - 110	CV	11/22/2024	11:17	LB133570

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1010	1000	101	90 - 110	P	11/21/2024	12:15	LB133568
	Barium	520	520	100	90 - 110	P	11/21/2024	12:15	LB133568
	Cadmium	512	510	100	90 - 110	P	11/21/2024	12:15	LB133568
	Chromium	518	520	100	90 - 110	P	11/21/2024	12:15	LB133568
	Lead	1020	1000	102	90 - 110	P	11/21/2024	12:15	LB133568
	Selenium	1050	1000	105	90 - 110	P	11/21/2024	12:15	LB133568
	Silver	250	250	100	90 - 110	P	11/21/2024	12:15	LB133568

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	18.8	20.0	94	80 - 120	P	11/21/2024	12:36	LB133568
	Barium	95.6	100	96	80 - 120	P	11/21/2024	12:36	LB133568
	Cadmium	6.54	6.0	109	80 - 120	P	11/21/2024	12:36	LB133568
	Chromium	9.90	10.0	99	80 - 120	P	11/21/2024	12:36	LB133568
	Lead	11.5	12.0	96	80 - 120	P	11/21/2024	12:36	LB133568
	Selenium	18.5	20.0	92	80 - 120	P	11/21/2024	12:36	LB133568
	Silver	10.6	10.0	106	80 - 120	P	11/21/2024	12:36	LB133568

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	5110	5000	102	90 - 110	P	11/21/2024	14:02	LB133568
	Barium	9520	10000	95	90 - 110	P	11/21/2024	14:02	LB133568
	Cadmium	2470	2500	99	90 - 110	P	11/21/2024	14:02	LB133568
	Chromium	1020	1000	102	90 - 110	P	11/21/2024	14:02	LB133568
	Lead	5040	5000	101	90 - 110	P	11/21/2024	14:02	LB133568
	Selenium	5150	5000	103	90 - 110	P	11/21/2024	14:02	LB133568
	Silver	1270	1250	102	90 - 110	P	11/21/2024	14:02	LB133568
CCV02	Arsenic	5220	5000	104	90 - 110	P	11/21/2024	15:02	LB133568
	Barium	9650	10000	96	90 - 110	P	11/21/2024	15:02	LB133568
	Cadmium	2510	2500	100	90 - 110	P	11/21/2024	15:02	LB133568
	Chromium	1060	1000	106	90 - 110	P	11/21/2024	15:02	LB133568
	Lead	5130	5000	103	90 - 110	P	11/21/2024	15:02	LB133568
	Selenium	5310	5000	106	90 - 110	P	11/21/2024	15:02	LB133568
	Silver	1300	1250	104	90 - 110	P	11/21/2024	15:02	LB133568
CCV03	Arsenic	4980	5000	100	90 - 110	P	11/21/2024	16:00	LB133568
	Barium	9690	10000	97	90 - 110	P	11/21/2024	16:00	LB133568
	Cadmium	2440	2500	98	90 - 110	P	11/21/2024	16:00	LB133568
	Chromium	1030	1000	103	90 - 110	P	11/21/2024	16:00	LB133568
	Lead	4960	5000	99	90 - 110	P	11/21/2024	16:00	LB133568
	Selenium	5070	5000	101	90 - 110	P	11/21/2024	16:00	LB133568
	Silver	1270	1250	102	90 - 110	P	11/21/2024	16:00	LB133568
CCV04	Arsenic	4940	5000	99	90 - 110	P	11/21/2024	16:53	LB133568
	Barium	9360	10000	94	90 - 110	P	11/21/2024	16:53	LB133568
	Cadmium	2410	2500	96	90 - 110	P	11/21/2024	16:53	LB133568
	Chromium	1010	1000	101	90 - 110	P	11/21/2024	16:53	LB133568
	Lead	4910	5000	98	90 - 110	P	11/21/2024	16:53	LB133568
	Selenium	4980	5000	100	90 - 110	P	11/21/2024	16:53	LB133568
	Silver	1250	1250	100	90 - 110	P	11/21/2024	16:53	LB133568
CCV05	Arsenic	4960	5000	99	90 - 110	P	11/21/2024	17:40	LB133568
	Barium	9520	10000	95	90 - 110	P	11/21/2024	17:40	LB133568
	Cadmium	2420	2500	97	90 - 110	P	11/21/2024	17:40	LB133568
	Chromium	1020	1000	102	90 - 110	P	11/21/2024	17:40	LB133568
	Lead	4930	5000	98	90 - 110	P	11/21/2024	17:40	LB133568
	Selenium	5020	5000	100	90 - 110	P	11/21/2024	17:40	LB133568

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1260	1250	101	90 - 110	P	11/21/2024	17:40	LB133568
CCV06	Arsenic	5030	5000	101	90 - 110	P	11/21/2024	18:09	LB133568
	Barium	9570	10000	96	90 - 110	P	11/21/2024	18:09	LB133568
	Cadmium	2440	2500	98	90 - 110	P	11/21/2024	18:09	LB133568
	Chromium	1020	1000	102	90 - 110	P	11/21/2024	18:09	LB133568
	Lead	4970	5000	100	90 - 110	P	11/21/2024	18:09	LB133568
	Selenium	5100	5000	102	90 - 110	P	11/21/2024	18:09	LB133568
	Silver	1250	1250	100	90 - 110	P	11/21/2024	18:09	LB133568
CCV07	Arsenic	5030	5000	101	90 - 110	P	11/21/2024	18:44	LB133568
	Barium	9510	10000	95	90 - 110	P	11/21/2024	18:44	LB133568
	Cadmium	2420	2500	97	90 - 110	P	11/21/2024	18:44	LB133568
	Chromium	1010	1000	101	90 - 110	P	11/21/2024	18:44	LB133568
	Lead	4910	5000	98	90 - 110	P	11/21/2024	18:44	LB133568
	Selenium	5130	5000	102	90 - 110	P	11/21/2024	18:44	LB133568
	Silver	1240	1250	99	90 - 110	P	11/21/2024	18:44	LB133568

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Metals

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CRDL STANDARD FOR AA & ICP

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	21.2	20.0	106	40 - 160	P	11/21/2024	12:45	LB133568
	Barium	96.2	100	96	40 - 160	P	11/21/2024	12:45	LB133568
	Cadmium	7.10	6.0	118	40 - 160	P	11/21/2024	12:45	LB133568
	Chromium	10.2	10.0	102	40 - 160	P	11/21/2024	12:45	LB133568
	Lead	11.6	12.0	97	40 - 160	P	11/21/2024	12:45	LB133568
	Selenium	20.0	20.0	100	40 - 160	P	11/21/2024	12:45	LB133568
	Silver	10.6	10.0	106	40 - 160	P	11/21/2024	12:45	LB133568
CRA	Mercury	0.20	0.2	98	40 - 160	CV	11/22/2024	09:02	LB133570

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB97	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	08:55	LB133570

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB31	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	08:59	LB133570
CCB32	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	09:32	LB133570
CCB33	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	09:59	LB133570
CCB34	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	10:31	LB133570
CCB35	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	10:52	LB133570
CCB36	Mercury	0.20	+/-0.20	U	0.20	CV	11/22/2024	11:19	LB133570

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	12:40	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	12:40	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	12:40	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	12:40	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	12:40	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	12:40	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	12:40	LB133568

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	14:06	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	14:06	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	14:06	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	14:06	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	14:06	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	14:06	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	14:06	LB133568
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	15:13	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	15:13	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	15:13	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	15:13	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	15:13	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	15:13	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	15:13	LB133568
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	16:04	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	16:04	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	16:04	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	16:04	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	16:04	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	16:04	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	16:04	LB133568
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	16:57	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	16:57	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	16:57	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	16:57	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	16:57	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	16:57	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	16:57	LB133568
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	17:44	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	17:44	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	17:44	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	17:44	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	17:44	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	17:44	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	17:44	LB133568
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	18:14	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	18:14	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	18:14	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	18:14	LB133568

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	18:14	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	18:14	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	18:14	LB133568
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	11/21/2024	18:48	LB133568
	Barium	100	+/-100	U	100	P	11/21/2024	18:48	LB133568
	Cadmium	6.00	+/-6.00	U	6.00	P	11/21/2024	18:48	LB133568
	Chromium	10.0	+/-10.0	U	10.0	P	11/21/2024	18:48	LB133568
	Lead	12.0	+/-12.0	U	12.0	P	11/21/2024	18:48	LB133568
	Selenium	20.0	+/-20.0	U	20.0	P	11/21/2024	18:48	LB133568
	Silver	10.0	+/-10.0	U	10.0	P	11/21/2024	18:48	LB133568

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Metals
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PREPARATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165123TB		**WATER**		**Batch Number:**	**PB165143**		**Prep Date:**	**11/20/2024**	
	Mercury	2.00	<2.00	U	2.00	CV	11/22/2024	10:45	LB133570

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165143BL		**WATER**		**Batch Number:**	**PB165143**		**Prep Date:**	**11/20/2024**	
	Mercury	0.20	<0.20	U	0.20	CV	11/22/2024	09:14	LB133570

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Metals
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PREPARATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4921

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165123TB		**WATER**		**Batch Number:**	**PB165142**		**Prep Date:**	**11/20/2024**	
	Arsenic	100	<100	U	100	P	11/21/2024	17:27	LB133568
	Barium	500	<500	U	500	P	11/21/2024	17:27	LB133568
	Cadmium	30.0	<30.0	U	30.0	P	11/21/2024	17:27	LB133568
	Chromium	50.0	<50.0	U	50.0	P	11/21/2024	17:27	LB133568
	Lead	60.0	<60.0	U	60.0	P	11/21/2024	17:27	LB133568
	Selenium	100	<100	U	100	P	11/21/2024	17:27	LB133568
	Silver	50.0	<50.0	U	50.0	P	11/21/2024	17:27	LB133568

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165142BL		**WATER**		**Batch Number:**	**PB165142**		**Prep Date:**	**11/20/2024**	
	Arsenic	100	<100	U	100	P	11/21/2024	17:31	LB133568
	Barium	500	<500	U	500	P	11/21/2024	17:31	LB133568
	Cadmium	30.0	<30.0	U	30.0	P	11/21/2024	17:31	LB133568
	Chromium	50.0	<50.0	U	50.0	P	11/21/2024	17:31	LB133568
	Lead	60.0	<60.0	U	60.0	P	11/21/2024	17:31	LB133568
	Selenium	100	<100	U	100	P	11/21/2024	17:31	LB133568
	Silver	50.0	<50.0	U	50.0	P	11/21/2024	17:31	LB133568

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Metals
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INTERFERENCE CHECK SAMPLE

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	4.85			-20	20	11/21/2024	12:49	LB133568
	Barium	2.20	6.0	37	-94	106	11/21/2024	12:49	LB133568
	Cadmium	6.13	1.0	613	-5	7	11/21/2024	12:49	LB133568
	Chromium	59.3	52.0	114	42	62	11/21/2024	12:49	LB133568
	Lead	7.66			-12	12	11/21/2024	12:49	LB133568
	Selenium	-7.87			-20	20	11/21/2024	12:49	LB133568
	Silver	-2.87			-10	10	11/21/2024	12:49	LB133568
ICSAB01	Arsenic	117	104	112	88.4	120	11/21/2024	12:58	LB133568
	Barium	511	537	95	437	637	11/21/2024	12:58	LB133568
	Cadmium	1030	972	106	826	1120	11/21/2024	12:58	LB133568
	Chromium	575	542	106	460	624	11/21/2024	12:58	LB133568
	Lead	59.0	49.0	120	37	61	11/21/2024	12:58	LB133568
	Selenium	43.0	46.0	94	26	66	11/21/2024	12:58	LB133568
	Silver	201	201	100	170	232	11/21/2024	12:58	LB133568

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: AECOM **level:** low **sdg no.:** P4921

contract: AECO02 **lab code:** CHEM **case no.:** P4921 **sas no.:** P4921

matrix: Water **sample id:** P4921-01 **client id:** WC-11-A-202411MS

Percent Solids for Sample: NA **Spiked ID:** P4921-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	37.7		2.00	U	40.0	94		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: AECOM **level:** low **sdg no.:** P4921

contract: AECO02 **lab code:** CHEM **case no.:** P4921 **sas no.:** P4921

matrix: Water **sample id:** P4921-01 **client id:** WC-11-A-202411MSD

Percent Solids for Sample: NA **Spiked ID:** P4921-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	38.9		2.00	U	40.0	97		CV

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: AECOM **level:** low **sdg no.:** P4921

contract: AECO02 **lab code:** CHEM **case no.:** P4921 **sas no.:** P4921

matrix: Water **sample id:** P4929-02 **client id:** ARS520MS

Percent Solids for Sample: NA **Spiked ID:** P4929-02MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3870		100	U	4000	97		P
Barium	ug/L	75 - 125	1740		827		1000	91		P
Cadmium	ug/L	75 - 125	918		5.50	J	1000	91		P
Chromium	ug/L	75 - 125	1940		10.8	J	2000	97		P
Lead	ug/L	75 - 125	4460		52.7	J	5000	88		P
Selenium	ug/L	75 - 125	9560		100	U	10000	96		P
Silver	ug/L	75 - 125	353		50.0	U	380	93		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: AECOM **level:** low **sdg no.:** P4921

contract: AECO02 **lab code:** CHEM **case no.:** P4921 **sas no.:** P4921

matrix: Water **sample id:** P4929-02 **client id:** ARS520MSD

Percent Solids for Sample: NA **Spiked ID:** P4929-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	4080		100	U	4000	102		P
Barium	ug/L	75 - 125	1850		827		1000	103		P
Cadmium	ug/L	75 - 125	972		5.50	J	1000	97		P
Chromium	ug/L	75 - 125	2050		10.8	J	2000	102		P
Lead	ug/L	75 - 125	4710		52.7	J	5000	93		P
Selenium	ug/L	75 - 125	10000		100	U	10000	100		P
Silver	ug/L	75 - 125	375		50.0	U	380	99		P

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Metals
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Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Matrix: **Level:** LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AECOM **Level:** LOW **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Matrix: Water **Sample ID:** P4921-01 **Client ID:** WC-11-A-202411DUP

Percent Solids for Sample: NA **Duplicate ID** P4921-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	2.00	U	2.00	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AECOM **Level:** LOW **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Matrix: Water **Sample ID:** P4921-01MS **Client ID:** WC-11-A-202411MSD

Percent Solids for Sample: NA **Duplicate ID** P4921-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	37.7		38.9		3		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AECOM **Level:** LOW **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Matrix: Water **Sample ID:** P4929-02 **Client ID:** ARS520DUP

Percent Solids for Sample: NA **Duplicate ID** P4929-02DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	827		875		6		P
Cadmium	ug/L	20	5.50	J	4.68	J	16		P
Chromium	ug/L	20	10.8	J	10.8	J	1		P
Lead	ug/L	20	52.7	J	49.9	J	5		P
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AECOM **Level:** LOW **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Matrix: Water **Sample ID:** P4929-02MS **Client ID:** ARS520MSD

Percent Solids for Sample: NA **Duplicate ID** P4929-02MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3870		4080		5		P
Barium	ug/L	20	1740		1850		6		P
Cadmium	ug/L	20	918		972		6		P
Chromium	ug/L	20	1940		2050		6		P
Lead	ug/L	20	4460		4710		5		P
Selenium	ug/L	20	9560		10000		4		P
Silver	ug/L	20	353		375		6		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165142BS							
Arsenic	ug/L	4000	3780		94	80 - 120	P
Barium	ug/L	1000	930		93	80 - 120	P
Cadmium	ug/L	1000	932		93	80 - 120	P
Chromium	ug/L	2000	1970		98	80 - 120	P
Lead	ug/L	5000	4730		95	80 - 120	P
Selenium	ug/L	10000	9540		95	80 - 120	P
Silver	ug/L	380	368		97	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165143BS							
Mercury	ug/L	4.0	4.32		108	80 - 120	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-11-A-202411L

Lab Name: Chemtech Consulting Group **Contract:** AECO02

Lab Code: CHEM **Lb No.:** lb133570 **Lab Sample ID :** P4921-01L **SDG No.:** P4921

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	2.00	U	10.0	U			CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

ARS520L

Lab Name: Chemtech Consulting Group **Contract:** AECO02

Lab Code: CHEM **Lb No.:** lb133568 **Lab Sample ID :** P4929-02L **SDG No.:** P4921

Matrix (soil/water): Water **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100	U	500	U			P
Barium	827		814	J	2		P
Cadmium	5.50	J	150	U	100.0		P
Chromium	10.8	J	250	U	100.0		P
Lead	52.7	J	300	U	100.0		P
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4921 **SAS No.:** P4921

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Method:**

Case No.: P4921 **SAS No.:** P4921

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165142**						
P4921-01	WC-11-A-202411	SAM	WATER	11/20/2024	5.0	25.0	
P4929-02DUP	ARS520DUP	DUP	WATER	11/20/2024	5.0	25.0	
P4929-02MS	ARS520MS	MS	WATER	11/20/2024	5.0	25.0	
P4929-02MSD	ARS520MSD	MSD	WATER	11/20/2024	5.0	25.0	
PB165123TB	PB165123TB	MB	WATER	11/20/2024	5.0	25.0	
PB165142BL	PB165142BL	MB	WATER	11/20/2024	5.0	25.0	
PB165142BS	PB165142BS	LCS	WATER	11/20/2024	5.0	25.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: AECOM **SDG No.:** P4921

Contract: AECO02 **Lab Code:** CHEM **Method:**

Case No.: P4921 **SAS No.:** P4921

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165143**						
P4921-01	WC-11-A-202411	SAM	WATER	11/20/2024	3.0	30.0	
P4921-01DUP	WC-11-A-202411DUP	DUP	WATER	11/20/2024	3.0	30.0	
P4921-01MS	WC-11-A-202411MS	MS	WATER	11/20/2024	3.0	30.0	
P4921-01MSD	WC-11-A-202411MSD	MSD	WATER	11/20/2024	3.0	30.0	
PB165123TB	PB165123TB	MB	WATER	11/20/2024	3.0	30.0	
PB165143BL	PB165143BL	MB	WATER	11/20/2024	30.0	30.0	
PB165143BS	PB165143BS	LCS	WATER	11/20/2024	30.0	30.0	

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ANALYSIS RUN LOG

Client: AECOM **Contract:** AECO02

Lab code: CHEM **Case no.:** P4921 **Sas no.:** P4921 **Sdg no.:** P4921

Instrument id number: **Method:** **Run number:** LB133568

Start date: 11/21/2024 **End date:** 11/21/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1149	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1154	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1158	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1202	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1206	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1211	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1215	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1236	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1240	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1245	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1249	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1258	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1402	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1406	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1502	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1513	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1600	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1604	Ag,As,Ba,Cd,Cr,Pb,Se
P4929-02DUP	ARS520DUP	1	1648	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1653	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1657	Ag,As,Ba,Cd,Cr,Pb,Se
P4929-02L	ARS520L	5	1701	Ag,As,Ba,Cd,Cr,Pb,Se
P4929-02MS	ARS520MS	1	1705	Ag,As,Ba,Cd,Cr,Pb,Se
P4929-02MSD	ARS520MSD	1	1710	Ag,As,Ba,Cd,Cr,Pb,Se
P4921-01	WC-11-A-202411	1	1718	Ag,As,Ba,Cd,Cr,Pb,Se
PB165123TB	PB165123TB	1	1727	Ag,As,Ba,Cd,Cr,Pb,Se
PB165142BL	PB165142BL	1	1731	Ag,As,Ba,Cd,Cr,Pb,Se
PB165142BS	PB165142BS	1	1735	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1740	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1744	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1809	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1814	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1844	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1848	Ag,As,Ba,Cd,Cr,Pb,Se

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ANALYSIS RUN LOG

Client: AECOM **Contract:** AECO02

Lab code: CHEM **Case no.:** P4921 **Sas no.:** P4921 **Sdg no.:** P4921

Instrument id number: **Method:** **Run number:** LB133570

Start date: 11/22/2024 **End date:** 11/22/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0829	HG
S0.2	S0.2	1	0831	HG
S2.5	S2.5	1	0834	HG
S5	S5	1	0836	HG
S7.5	S7.5	1	0838	HG
S10	S10	1	0847	HG
ICV97	ICV97	1	0852	HG
ICB97	ICB97	1	0855	HG
CCV31	CCV31	1	0857	HG
CCB31	CCB31	1	0859	HG
CRA	CRA	1	0902	HG
PB165143BL	PB165143BL	1	0914	HG
PB165143BS	PB165143BS	1	0916	HG
P4921-01	WC-11-A-202411	1	0918	HG
P4921-01DUP	WC-11-A-202411DUP	1	0921	HG
P4921-01MS	WC-11-A-202411MS	1	0923	HG
P4921-01MSD	WC-11-A-202411MSD	1	0925	HG
CCV32	CCV32	1	0930	HG
CCB32	CCB32	1	0932	HG
CCV33	CCV33	1	0957	HG
CCB33	CCB33	1	0959	HG
CCV34	CCV34	1	1027	HG
CCB34	CCB34	1	1031	HG
PB165123TB	PB165123TB	1	1045	HG
CCV35	CCV35	1	1047	HG
CCB35	CCB35	1	1052	HG
P4921-01L	WC-11-A-202411L	5	1054	HG
CCV36	CCV36	1	1117	HG
CCB36	CCB36	1	1119	HG

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LAB CHRONICLE

OrderID:	P4921	**OrderDate:**	11/19/2024 12:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L61

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4921-01	**WC-11-A-202411**	**WATER**			**11/19/24 07:00**			**11/19/24**
			Cyanide	9012B		11/21/24	11/21/24 13:32	
			Flash Point	1010B			11/20/24 13:30	
			pH	9040C			11/20/24 08:30	
			Reactive Cyanide	9012B		11/20/24	11/21/24 11:15	
			Reactive Sulfide	9034		11/21/24	11/21/24 15:48	

SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	11/19/24 07:00
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/19/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4921
Lab Sample ID:	P4921-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.019		1	0.00099	0.0050	mg/L	11/21/24 08:30	11/21/24 13:32	9012B
Flash Point	>212		1	0	0	o F		11/20/24 13:30	1010B
pH	7.02	H	1	0	0	pH		11/20/24 08:30	9040C
Reactive Cyanide	0.00099	U	1	0.00099	0.0050	mg/L	11/20/24 15:00	11/21/24 11:15	9012B
Reactive Sulfide	0.43	U	1	0.43	1.00	mg/L	11/21/24 10:30	11/21/24 15:48	9034

Comments: Other method reference for flash point : Pensky-Martens Closed Cup Flash Point ASTM D 93 - IP 34, pH result reported at temperature

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **RunNo.:** LB133526

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV						
pH		pH	7.00	7	100	90-110	11/20/2024
Sample ID:	CCV1						
pH		pH	2.02	2.00	101	90-110	11/20/2024
Sample ID:	CCV2						
pH		pH	12.02	12.00	100	90-110	11/20/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4921
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133527

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Flash Point	o F	82.4	81	102	78-84	11/20/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4921
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133548

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.096	0.099	97	85-115	11/21/2024
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.25	0.25	100	90-110	11/21/2024
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	11/21/2024
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.26	0.25	104	90-110	11/21/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4921
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133553

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV1**						
Cyanide		mg/L	0.096	0.099	97	90-110	11/21/2024
Sample ID:	**CCV1**						
Cyanide		mg/L	0.25	0.25	100	90-110	11/21/2024
Sample ID:	**CCV2**						
Cyanide		mg/L	0.25	0.25	100	90-110	11/21/2024

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Initial and Continuing Calibration Blank Summary

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS **RunNo.:** LB133548

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024

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Initial and Continuing Calibration Blank Summary

Client:	AECOM	**SDG No.:**	P4921
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133553

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	ICB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID:	CCB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID:	CCB2							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024

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Preparation Blank Summary

Client: AECOM **SDG No.:** P4921

Project: Meeker Ave Plumes Superfund Site RI FS

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB165128BL							
Reactive Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1	11/21/2024
Sample ID: PB165148BL							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024
Sample ID: PB165170BL							
Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/21/2024

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Matrix Spike Summary

Client: AECOM
Project: Meeker Ave Plumes Superfund Site RI FS
Client ID: WC-11-A-202411MS
SDG No.: P4921
Sample ID: P4921-01
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.053		0.019		0.04	1	85		11/21/2024

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Matrix Spike Summary

Client: AECOM
Project: Meeker Ave Plumes Superfund Site RI FS
Client ID: WC-11-A-202411MSD
SDG No.: P4921
Sample ID: P4921-01
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/L	75-125	0.055		0.019		0.04	1	90		11/21/2024

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Duplicate Sample Summary

Client: AECOM
Project: Meeker Ave Plumes Superfund Site RI FS
Client ID: WC-11-A-202411DUP
SDG No.: P4921
Sample ID: P4921-01
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
pH	pH	+/-20	7.02		7.03		1	0.14		11/20/2024
Reactive Cyanide	mg/L	+/-20	0.00099	U	0.00099	U	1	0		11/21/2024
Cyanide	mg/L	+/-20	0.019		0.019		1	0		11/21/2024
Reactive Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		11/21/2024

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Duplicate Sample Summary

Client: AECOM
SDG No.: P4921
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4921-01
Client ID: WC-11-A-202411MSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/L	+/-20	0.053		0.055		1	4		11/21/2024

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Duplicate Sample Summary

Client: AECOM
SDG No.: P4921
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4927-01
Client ID: 111424-CDUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Flash Point	o F	+/-2	>212.0		>212.0		1	0		11/20/2024

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Laboratory Control Sample Summary

Client:	AECOM	**SDG No.:**	P4921
Project:	Meeker Ave Plumes Superfund Site RI FS	**Run No.:**	LB133553

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID **PB165170BS**								
Cyanide	mg/L	0.1	0.095		95	1	85-115	11/21/2024

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. P4921
QUOTE NO.
COC Number 2041714

11
11.1

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: AECOM
ADDRESS: 605 3rd Ave
CITY New York STATE: NY ZIP: 10158
ATTENTION: Amit Haryani
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Meeker Ave Superfund
PROJECT NO.: 60705866 LOCATION: Brooklyn
PROJECT MANAGER: Amit Haryani
e-mail: amit.haryani@aecom.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS: SAME
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) 3 day DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced
- ☐ NYS ASP A
- ☐ NYS ASP B
- ☐ US EPA CLP
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 TCLP VOA
2 TCLP BNA PCB.
3 TCLP Pesticides
4 TCLP Metal and Hem
5 React. Cyanide
6 React. Sulfide
7 pH
8 Flash Point
9 30 mt Filter

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9	COMMENTS
1.	WC-11-A-20241111	GW	X		11/19/24	0700	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	11/19/24	1. 1230 11-19-24
2.		2.
3.	DATE/TIME: 1450 11-19-24	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.4 °C
Comments:

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4921 AECO02
Client Name : AECOM
Client Contact : Amit Haryani
Invoice Name : AECOM
Invoice Contact : Amit Haryani

Order Date : 11/19/2024 12:44:00 PM
Project Name : Meeker Ave Plumes Superfi
Receive DateTime : 11/19/2024 ~~12:00:00~~ 14:50 AM
Purchase Order :

Project Mgr :
Report Type : Results+QC
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4921-01	WC-11-A-202411	Water	11/19/2024	07:00					
					TCLP VOA		8260D		3 Bus. Days

Relinguished By :
Date / Time : 11-19-24 1530

Received By :
Date / Time : 11.19.24 1530

Storage Area : VOA Refridgerator Room