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 : P4861

ATTENTION : Amit Haryani

Laboratory Certification ID # 20012

Table Of Contents for P4861

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

Cover Page

Order ID : P4861

Project ID : Meeker Ave Plumes Superfund Site RI FS

Client : AECOM

Lab Sample Number	Client Sample Number
P4861-01	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: 11/27/2024

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 # P4861
Test Name: TCLP VOA

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The 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

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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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Signature_____

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4861
Test Name: TCLP BNA

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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 {PB165052BS} with File ID: BF140596.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.

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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.

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 # P4861
Test Name: TCLP Pesticide

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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 # P4861
Test Name: PCB

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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_P. 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.

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CASE NARRATIVE

AECOM
Project Name: Meeker Ave Plumes Superfund Site RI FS
Project # N/A
Chemtech Project # P4861
Test Name: TCLP Mercury,TCLP ICP Metals

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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 # P4861
Test Name: pH,Cyanide,Flash Point,Reactive Cyanide,Reactive Sulfide

A. Number of Samples and Date of Receipt:
1 Water sample was received on 11/14/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Cyanide, Flash Point, Paint Filter, 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 samples was receive out of holding time.
The Blank Spike met requirements for all samples.
The Duplicate (WC-10-A-202411DUP) analysis met criteria for all samples except for Cyanide due to the results are below reporting limit.
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:

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Signature_____

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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 #: P4861

	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:** 11/27/2024

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LAB CHRONICLE

OrderID:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**TCLP**			**11/13/24**			**11/14/24**
			TCLP VOA	8260D			11/18/24	

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Hit Summary Sheet
SW-846

SDG No.: P4861

Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**WC-11-A-202411**							
P4861-01	WC-11-A-202411	TCLP	Vinyl Chloride	2.10	J	0.34	5.00	ug/L
P4861-01	WC-11-A-202411	TCLP	Chloroform	1.00	J	0.26	5.00	ug/L
P4861-01	WC-11-A-202411	TCLP	Benzene	1.20	J	0.16	5.00	ug/L
P4861-01	WC-11-A-202411	TCLP	1,2-Dichloroethane	2.70	J	0.24	5.00	ug/L
P4861-01	WC-11-A-202411	TCLP	Trichloroethene	21.9		0.32	5.00	ug/L
P4861-01	WC-11-A-202411	TCLP	Tetrachloroethene	97.9		0.25	5.00	ug/L
			Total Voc :	127				
			Total Concentration:	127				

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:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084924.D	1		11/18/24 16:52	VN111824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	2.10	J	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	1.00	J	0.26	5.00	ug/L
71-43-2	Benzene	1.20	J	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	2.70	J	0.24	5.00	ug/L
79-01-6	Trichloroethene	21.9		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	97.9		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	50.1		74 - 125	100%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		75 - 124	94%	SPK: 50
2037-26-5	Toluene-d8	46.5		86 - 113	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.5		77 - 121	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	175000	8.224			
540-36-3	1,4-Difluorobenzene	313000	9.1			
3114-55-4	Chlorobenzene-d5	286000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	133000	13.788			

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

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

SDG No.: P4861

Client: AECOM

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
P4861-01	WC-11-A-202411	1,2-Dichloroethane-d4	50	50.1	100	74	125
		Dibromofluoromethane	50	47.2	94	75	124
		Toluene-d8	50	46.5	93	86	113
		4-Bromofluorobenzene	50	53.5	107	77	121

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Surrogate Summary

SDG No.: P4861

Client: AECOM

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
VN1118WBL01	VN1118WBL01	1,2-Dichloroethane-d4	50	52.4	105	74	125
		Dibromofluoromethane	50	49.6	99	75	124
		Toluene-d8	50	45.7	91	86	113
		4-Bromofluorobenzene	50	45.2	90	77	121
VN1118WBS01	VN1118WBS01	1,2-Dichloroethane-d4	50	51.1	102	74	125
		Dibromofluoromethane	50	51.7	103	75	124
		Toluene-d8	50	51.1	102	86	113
		4-Bromofluorobenzene	50	56.6	113	77	121
VN1118WBSD0	VN1118WBSD01	1,2-Dichloroethane-d4	50	47.7	95	74	125
		Dibromofluoromethane	50	47.3	95	75	124
		Toluene-d8	50	46.1	92	86	113
		4-Bromofluorobenzene	50	49.8	100	77	121

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: SW8260-Low **Datafile :** VN084919.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1118WBS01	Vinyl chloride	20	20.6	ug/L	103			65	117	
	1,1-Dichloroethene	20	20.9	ug/L	104			74	110	
	2-Butanone	100	120	ug/L	120			65	122	
	Carbon Tetrachloride	20	21.6	ug/L	108			77	113	
	Chloroform	20	22.0	ug/L	110			79	113	
	Benzene	20	21.2	ug/L	106			82	109	
	1,2-Dichloroethane	20	21.9	ug/L	110			80	115	
	Trichloroethene	20	20.3	ug/L	102			77	113	
	Tetrachloroethene	20	20.4	ug/L	102			67	123	
	Chlorobenzene	20	21.5	ug/L	108			82	109	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: SW8260-Low **Datafile :** VN084923.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1118WBSD01	Vinyl chloride	20	18.2	ug/L	91	12		65	117	20
	1,1-Dichloroethene	20	18.1	ug/L	91	13		74	110	20
	2-Butanone	100	100	ug/L	100	18		65	122	20
	Carbon Tetrachloride	20	18.5	ug/L	93	15		77	113	20
	Chloroform	20	19.0	ug/L	95	15		79	113	20
	Benzene	20	17.9	ug/L	90	16		82	109	20
	1,2-Dichloroethane	20	18.6	ug/L	93	17		80	115	20
	Trichloroethene	20	17.5	ug/L	88	15		77	113	20
	Tetrachloroethene	20	17.1	ug/L	86	17		67	123	20
	Chlorobenzene	20	17.7	ug/L	89	19		82	109	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1118WBL01

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: VN084913.D Lab Sample ID: VN1118WBL01

Date Analyzed: 11/18/2024 Time Analyzed: 12:27

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1118WBS01	VN1118WBS01	VN084919.D	11/18/2024
VN1118WBSD01	VN1118WBSD01	VN084923.D	11/18/2024
WC-11-A-202411	P4861-01	VN084924.D	11/18/2024

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: VN084569.D BFB Injection Date: 10/30/2024

Instrument ID: MSVOA_N BFB Injection Time: 10:42

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	50.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	73.5
175	5.0 - 9.0% of mass 174	5.7 (7.7) 1
176	95.0 - 101.0% of mass 174	70.1 (95.4) 1
177	5.0 - 9.0% of mass 176	4.8 (6.9) 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
VSTDICC100	VSTDICC100	VN084570.D	10/30/2024	11:46
VSTDICCC050	VSTDICCC050	VN084571.D	10/30/2024	12:09
VSTDICC020	VSTDICC020	VN084572.D	10/30/2024	12:33
VSTDICC010	VSTDICC010	VN084573.D	10/30/2024	12:57
VSTDICC005	VSTDICC005	VN084574.D	10/30/2024	13:21
VSTDICC001	VSTDICC001	VN084575.D	10/30/2024	13:45

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: VN084910.D BFB Injection Date: 11/18/2024

Instrument ID: MSVOA_N BFB Injection Time: 08:47

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	48.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5 (0.6) 1
174	50.0 - 100.0% of mass 95	73.2
175	5.0 - 9.0% of mass 174	6.1 (8.3) 1
176	95.0 - 101.0% of mass 174	72 (98.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6.1) 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
VSTDCCC050	VSTDCCC050	VN084911.D	11/18/2024	09:51
VN1118WBL01	VN1118WBL01	VN084913.D	11/18/2024	12:27
VN1118WBS01	VN1118WBS01	VN084919.D	11/18/2024	14:52
VN1118WBSD01	VN1118WBSD01	VN084923.D	11/18/2024	16:28
WC-11-A-202411	P4861-01	VN084924.D	11/18/2024	16:52

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: VN084911.D Date Analyzed: 11/18/2024

Instrument ID: MSVOA_N Time Analyzed: 09:51

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	168638	8.22	277153	9.09	245519	11.87
UPPER LIMIT	337276	8.718	554306	9.594	491038	12.365
LOWER LIMIT	84319	7.718	138577	8.594	122760	11.365
EPA SAMPLE NO.						
WC-11-A-202411	175303	8.22	312575	9.10	285945	11.87
VN1118WBL01	175680	8.22	312901	9.10	269131	11.87
VN1118WBS01	184217	8.22	316400	9.09	286519	11.87
VN1118WBSD01	187181	8.22	326112	9.10	290218	11.87

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.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: VN084911.D Date Analyzed: 11/18/2024

Instrument ID: MSVOA_N Time Analyzed: 09:51

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	120987	13.788				
UPPER LIMIT	241974	14.288				
LOWER LIMIT	60493.5	13.288				
EPA SAMPLE NO.						
WC-11-A-202411	132563	13.79				
VN1118WBL01	114405	13.79				
VN1118WBS01	143055	13.79				
VN1118WBSD01	145074	13.79				

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:	VN1118WBL01	SDG No.:	P4861
Lab Sample ID:	VN1118WBL01	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084913.D	1		11/18/24 12:27	VN111824

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	52.4		74 - 125	105%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		75 - 124	99%	SPK: 50
2037-26-5	Toluene-d8	45.7		86 - 113	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.2		77 - 121	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	176000	8.218			
540-36-3	1,4-Difluorobenzene	313000	9.1			
3114-55-4	Chlorobenzene-d5	269000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	114000	13.788			

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:	VN1118WBS01	SDG No.:	P4861
Lab Sample ID:	VN1118WBS01	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084919.D	1		11/18/24 14:52	VN111824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	20.6		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	20.9		0.26	1.00	ug/L
78-93-3	2-Butanone	120		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	21.6		0.25	1.00	ug/L
67-66-3	Chloroform	22.0		0.26	1.00	ug/L
71-43-2	Benzene	21.2		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.9		0.24	1.00	ug/L
79-01-6	Trichloroethene	20.3		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	20.4		0.25	1.00	ug/L
108-90-7	Chlorobenzene	21.5		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		74 - 125	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		75 - 124	103%	SPK: 50
2037-26-5	Toluene-d8	51.1		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.6		77 - 121	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	184000	8.224			
540-36-3	1,4-Difluorobenzene	316000	9.094			
3114-55-4	Chlorobenzene-d5	287000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	143000	13.788			

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:	VN1118WBSD01	SDG No.:	P4861
Lab Sample ID:	VN1118WBSD01	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:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084923.D	1		11/18/24 16:28	VN111824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.2		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.26	1.00	ug/L
78-93-3	2-Butanone	100		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.5		0.25	1.00	ug/L
67-66-3	Chloroform	19.0		0.26	1.00	ug/L
71-43-2	Benzene	17.9		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.6		0.24	1.00	ug/L
79-01-6	Trichloroethene	17.5		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	17.1		0.25	1.00	ug/L
108-90-7	Chlorobenzene	17.7		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.7		74 - 125	95%	SPK: 50
1868-53-7	Dibromofluoromethane	47.3		75 - 124	95%	SPK: 50
2037-26-5	Toluene-d8	46.1		86 - 113	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.8		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	187000	8.218			
540-36-3	1,4-Difluorobenzene	326000	9.1			
3114-55-4	Chlorobenzene-d5	290000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	145000	13.788			

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.: P4861 SAS No.: P4861 SDG No.: P4861

Instrument ID: MSVOA_N Calibration Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Calibration Time(s): 11:46 13:45

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN084570.D RRF050 = VN084571.D RRF020 = VN084572.D
RRF010 = VN084573.D RRF005 = VN084574.D RRF001 = VN084575.D

COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	$\overline{RRF}$	% RSD
Vinyl Chloride	0.613	0.605	0.623	0.636	0.651	0.581	0.618	4
1,1-Dichloroethene	0.548	0.538	0.560	0.575	0.552	0.644	0.569	6.8
2-Butanone	0.316	0.315	0.348	0.338	0.370	0.334	0.337	6.1
Carbon Tetrachloride	0.530	0.514	0.532	0.548	0.537	0.488	0.525	4
Chloroform	1.099	1.086	1.142	1.154	1.222	1.025	1.121	6
Benzene	1.494	1.448	1.509	1.507	1.546	1.540	1.507	2.4
1,2-Dichloroethane	0.488	0.494	0.493	0.492	0.503	0.459	0.488	3.1
Trichloroethene	0.339	0.335	0.345	0.338	0.341	0.387	0.348	5.7
Tetrachloroethene	0.326	0.313	0.333	0.347	0.351	0.325	0.333	4.3
Chlorobenzene	1.068	1.061	1.149	1.123	1.165	1.146	1.119	3.9
1,2-Dichloroethane-d4	0.689	0.721	0.708	0.722	0.771		0.722	4.2
Dibromofluoromethane	0.334	0.344	0.326	0.336	0.353		0.338	3.1
Toluene-d8	1.267	1.303	1.216	1.231	1.217		1.247	3
4-Bromofluorobenzene	0.481	0.493	0.450	0.451	0.454		0.466	4.3

* 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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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861

Instrument ID: MSVOA_N Calibration Date/Time: 11/18/2024 09:51

Lab File ID: VN084911.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.618	0.613		-0.81	20
1,1-Dichloroethene	0.569	0.556		-2.29	20
2-Butanone	0.337	0.400		18.69	20
Carbon Tetrachloride	0.525	0.572		8.95	20
Chloroform	1.121	1.196		6.69	20
Benzene	1.507	1.585		5.18	20
1,2-Dichloroethane	0.488	0.532		9.02	20
Trichloroethene	0.348	0.351		0.86	20
Tetrachloroethene	0.333	0.343		3	20
Chlorobenzene	1.119	1.141	0.3	1.97	20
1,2-Dichloroethane-d4	0.722	0.729		0.97	20
Dibromofluoromethane	0.338	0.348		2.96	20
Toluene-d8	1.247	1.248		0.08	20
4-Bromofluorobenzene	0.466	0.461		-1.07	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Alliance TECHNICAL GROUP
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LAB CHRONICLE

OrderID:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**TCLP**			**11/13/24**			**11/14/24**
			TCLP BNA	8270E		11/18/24	11/18/24	

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Hit Summary Sheet
SW-846

SDG No.: P4861

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

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	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
BF140459.D	1	11/18/24 08:35	11/18/24 17:40	PB165052

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	132		10 - 139	88%	SPK: 150
13127-88-3	Phenol-d6	119		10 - 134	79%	SPK: 150
4165-60-0	Nitrobenzene-d5	100		49 - 133	100%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.9		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	158		44 - 137	105%	SPK: 150
1718-51-0	Terphenyl-d14	110		48 - 125	110%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	130000	6.875			
1146-65-2	Naphthalene-d8	492000	8.151			
15067-26-2	Acenaphthene-d10	277000	9.904			
1517-22-2	Phenanthrene-d10	538000	11.398			
1719-03-5	Chrysene-d12	316000	14.045			
1520-96-3	Perylene-d12	154000	15.533			

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Report of Analysis

Client:	AECOM			Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411			SDG No.:	P4861
Lab Sample ID:	P4861-01			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
BF140459.D	1	11/18/24 08:35	11/18/24 17:40	PB165052

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:	11/18/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/18/24
Client Sample ID:	PB165019TB	SDG No.:	P4861
Lab Sample ID:	PB165019TB	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
BF140464.D	1	11/18/24 08:35	11/19/24 11:00	PB165052

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	126		10 - 139	84%	SPK: 150
13127-88-3	Phenol-d6	121		10 - 134	81%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.6		49 - 133	87%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.6		52 - 132	88%	SPK: 100
118-79-6	2,4,6-Tribromophenol	124		44 - 137	83%	SPK: 150
1718-51-0	Terphenyl-d14	85.9		48 - 125	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	144000	6.869			
1146-65-2	Naphthalene-d8	545000	8.151			
15067-26-2	Acenaphthene-d10	303000	9.904			
1517-22-2	Phenanthrene-d10	577000	11.398			
1719-03-5	Chrysene-d12	370000	14.057			
1520-96-3	Perylene-d12	302000	15.574			

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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:	PB165019TB			SDG No.:	P4861
Lab Sample ID:	PB165019TB			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
BF140464.D	1	11/18/24 08:35	11/19/24 11:00	PB165052

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.: P4861

Client: AECOM

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4848-02MS	TP-1MS	2-Fluorophenol	150	140	93		10	139
		Phenol-d6	150	136	91		10	134
		Nitrobenzene-d5	100	101	101		49	133
		2-Fluorobiphenyl	100	99.0	99		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	110	110		48	125
P4848-02MSD	TP-1MSD	2-Fluorophenol	150	144	96		10	139
		Phenol-d6	150	138	92		10	134
		Nitrobenzene-d5	100	104	104		49	133
		2-Fluorobiphenyl	100	100	100		52	132
		2,4,6-Tribromophenol	150	159	106		44	137
		Terphenyl-d14	100	113	113		48	125
P4861-01	WC-11-A-202411	2-Fluorophenol	150	132	88		10	139
		Phenol-d6	150	119	79		10	134
		Nitrobenzene-d5	100	100	100		49	133
		2-Fluorobiphenyl	100	99.9	100		52	132
		2,4,6-Tribromophenol	150	158	105		44	137
		Terphenyl-d14	100	110	110		48	125
PB165019TB	PB165019TB	2-Fluorophenol	150	126	84		10	139
		Phenol-d6	150	121	81		10	134
		Nitrobenzene-d5	100	86.6	87		49	133
		2-Fluorobiphenyl	100	87.6	88		52	132
		2,4,6-Tribromophenol	150	124	83		44	137
		Terphenyl-d14	100	85.9	86		48	125
PB165052BL	PB165052BL	2-Fluorophenol	150	138	92		10	139
		Phenol-d6	150	132	88		10	134
		Nitrobenzene-d5	100	92.2	92		49	133
		2-Fluorobiphenyl	100	92.9	93		52	132
		2,4,6-Tribromophenol	150	133	88		44	137
		Terphenyl-d14	100	102	102		48	125
PB165052BS	PB165052BS	2-Fluorophenol	150	136	91		10	139
		Phenol-d6	150	133	89		10	134
		Nitrobenzene-d5	100	90.2	90		49	133
		2-Fluorobiphenyl	100	91.1	91		52	132
		2,4,6-Tribromophenol	150	143	95		44	137
		Terphenyl-d14	100	89.0	89		48	125

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4861

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: P4848-02MS		**Client Sample ID: TP-1MS**						**DataFile: BF140465.D**			
Pyridine	500	0	320	ug/L	64				10	109	
1,4-Dichlorobenzene	500	0	400	ug/L	80				55	125	
2-Methylphenol	500	0	500	ug/L	100				37	126	
3+4-Methylphenols	500	0	510	ug/L	102				31	127	
Hexachloroethane	500	0	400	ug/L	80				49	110	
Nitrobenzene	500	0	460	ug/L	92				62	112	
Hexachlorobutadiene	500	0	430	ug/L	86				52	125	
2,4,6-Trichlorophenol	500	0	530	ug/L	106				78	112	
2,4,5-Trichlorophenol	500	0	520	ug/L	104				71	111	
2,4-Dinitrotoluene	500	0	530	ug/L	106				50	142	
Hexachlorobenzene	500	0	530	ug/L	106				72	115	
Pentachlorophenol	1000	0	1100	ug/L	110				25	139	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4861

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: P4848-02MSD		**Client Sample ID:** TP-1MSD						**DataFile:** BF140466.D			
Pyridine	500	0	320	ug/L	64	0			10	109	20
1,4-Dichlorobenzene	500	0	410	ug/L	82	2			55	125	20
2-Methylphenol	500	0	510	ug/L	102	2			37	126	20
3+4-Methylphenols	500	0	520	ug/L	104	2			31	127	20
Hexachloroethane	500	0	410	ug/L	82	2			49	110	20
Nitrobenzene	500	0	460	ug/L	92	0			62	112	20
Hexachlorobutadiene	500	0	440	ug/L	88	2			52	125	20
2,4,6-Trichlorophenol	500	0	550	ug/L	110	4			78	112	20
2,4,5-Trichlorophenol	500	0	520	ug/L	104	0			71	111	20
2,4-Dinitrotoluene	500	0	540	ug/L	108	2			50	142	20
Hexachlorobenzene	500	0	540	ug/L	108	2			72	115	20
Pentachlorophenol	1000	0	1100	ug/L	110	0			25	139	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8270E **DataFile:** BF140596.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165052BS	Pyridine	50	49.3	ug/L	99		*		29	97	
	1,4-Dichlorobenzene	50	46.6	ug/L	93				76	103	
	2-Methylphenol	50	49.4	ug/L	99				69	109	
	3+4-Methylphenols	50	49.2	ug/L	98				67	106	
	Hexachloroethane	50	46.3	ug/L	93				76	118	
	Nitrobenzene	50	44.6	ug/L	89				58	106	
	Hexachlorobutadiene	50	44.9	ug/L	90				69	101	
	2,4,6-Trichlorophenol	50	48.0	ug/L	96				61	110	
	2,4,5-Trichlorophenol	50	47.2	ug/L	94				70	106	
	2,4-Dinitrotoluene	50	48.7	ug/L	97				60	115	
	Hexachlorobenzene	50	46.6	ug/L	93				73	106	
	Pentachlorophenol	100	100	ug/L	100				47	114	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165052BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab File ID: BF140605.D Lab Sample ID: PB165052BL

Instrument ID: BNA_F Date Extracted: 11/18/2024

Matrix: (soil/water) water Date Analyzed: 11/25/2024

Level: (low/med) LOW Time Analyzed: 16:17

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
WC-11-A-202411	P4861-01	BF140459.D	11/18/2024
TP-1MS	P4848-02MS	BF140465.D	11/19/2024
PB165019TB	PB165019TB	BF140464.D	11/19/2024
TP-1MSD	P4848-02MSD	BF140466.D	11/19/2024
PB165052BS	PB165052BS	BF140596.D	11/25/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

Lab File ID: BF140331.D DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_F DFTPP Injection Time: 08:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.9
68	Less than 2.0% of mass 69	0.7 (1.8) 1
69	Mass 69 relative abundance	38
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	48.6
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	28.3
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	14
442	Greater than 50% of mass 198	88.6
443	15.0 - 24.0% of mass 442	16.7 (18.8) 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	BF140332.D	11/13/2024	09:01
SSTDICC005	SSTDICC005	BF140333.D	11/13/2024	09:27
SSTDICC010	SSTDICC010	BF140334.D	11/13/2024	09:53
SSTDICC020	SSTDICC020	BF140335.D	11/13/2024	10:29
SSTDICC050	SSTDICC050	BF140337.D	11/13/2024	11:21
SSTDICC060	SSTDICC060	BF140338.D	11/13/2024	11:47
SSTDICC080	SSTDICC080	BF140339.D	11/13/2024	12:13
SSTDICCC040	SSTDICCC040	BF140340.D	11/13/2024	12:48

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

Lab File ID: BF140455.D DFTPP Injection Date: 11/18/2024

Instrument ID: BNA_F DFTPP Injection Time: 15:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.7
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	34.7
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	45.8
197	Less than 2.0% of mass 198	0.2
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	27.9
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	16.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.2 (18.2) 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	BF140456.D	11/18/2024	16:14
WC-11-A-202411	P4861-01	BF140459.D	11/18/2024	17:40

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

Lab File ID: BF140462.D DFTPP Injection Date: 11/19/2024

Instrument ID: BNA_F DFTPP Injection Time: 09:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.8
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	38.6
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	49.9
197	Less than 2.0% of mass 198	0.8
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	27.6
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	14.7
442	Greater than 50% of mass 198	91.9
443	15.0 - 24.0% of mass 442	17 (18.5) 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	BF140463.D	11/19/2024	10:34
PB165019TB	PB165019TB	BF140464.D	11/19/2024	11:00
TP-1MS	P4848-02MS	BF140465.D	11/19/2024	11:36
TP-1MSD	P4848-02MSD	BF140466.D	11/19/2024	12:02

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

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

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

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
PB165052BS	PB165052BS	BF140596.D	11/25/2024	12:09

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM SAS No.: P4861 SDG NO.: P4861

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
PB165052BL	PB165052BL	BF140605.D	11/25/2024	16:17

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/18/2024

Lab File ID: BF140456.D Time Analyzed: 16:14

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	136246	6.875	509583	8.16	277583	9.91
	UPPER LIMIT	272492	7.375	1019170	8.657	555166	10.41
	LOWER LIMIT	68123	6.375	254792	7.657	138792	9.41
	EPA SAMPLE NO.						
01	WC-11-A-202411	130012	6.88	491807	8.15	276538	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.: P4861 SAS No.: P4861 SDG NO.: P4861

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/18/2024

Lab File ID: BF140456.D Time Analyzed: 16:14

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	499315	11.398	237967	14.045	262467	15.533
	UPPER LIMIT	998630	11.898	475934	14.545	524934	16.033
	LOWER LIMIT	249658	10.898	118984	13.545	131234	15.033
	EPA SAMPLE NO.						
01	WC-11-A-202411	538236	11.40	315994	14.05	154098	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.: P4861 SAS No.: P4861 SDG NO.: P4861

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/19/2024

Lab File ID: BF140463.D Time Analyzed: 10:34

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	137275	6.875	502770	8.16	278131	9.91
	UPPER LIMIT	274550	7.375	1005540	8.657	556262	10.41
	LOWER LIMIT	68637.5	6.375	251385	7.657	139066	9.41
	EPA SAMPLE NO.						
01	PB165019TB	144350	6.87	545389	8.15	303191	9.90
02	TP-1MS	148608	6.88	566127	8.15	313272	9.91
03	TP-1MSD	147727	6.88	561678	8.15	311833	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.: P4861 SAS No.: P4861 SDG NO.: P4861

EPA Sample No.: SSTDCCC040 Date Analyzed: 11/19/2024

Lab File ID: BF140463.D Time Analyzed: 10:34

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	524892	11.398	344697	14.069	292973	15.592
	UPPER LIMIT	1049780	11.898	689394	14.569	585946	16.092
	LOWER LIMIT	262446	10.898	172349	13.569	146487	15.092
	EPA SAMPLE NO.						
01	PB165019TB	576588	11.40	369743	14.06	301857	15.57
02	TP-1MS	585294	11.40	347810	14.06	308234	15.57
03	TP-1MSD	573421	11.40	332365	14.06	278980	15.58

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.: P4861 SAS No.: P4861 SDG NO.: P4861

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	PB165052BS	94726	6.87	366046	8.15	205183	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.: P4861 SAS No.: P4861 SDG NO.: P4861

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	PB165052BS	398573	11.40	258584	14.06	208347	15.56

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.: P4861 SAS No.: P4861 SDG NO.: P4861

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	PB165052BL	100879	6.87	377922	8.15	213827	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.: P4861 SAS No.: P4861 SDG NO.: P4861

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	PB165052BL	407609	11.40	220442	14.05	187220	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:	PB165052BL	SDG No.:	P4861
Lab Sample ID:	PB165052BL	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
BF140605.D	1	11/18/24 08:35	11/25/24 16:17	PB165052

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	138		10 - 139	92%	SPK: 150
13127-88-3	Phenol-d6	132		10 - 134	88%	SPK: 150
4165-60-0	Nitrobenzene-d5	92.2		49 - 133	92%	SPK: 100
321-60-8	2-Fluorobiphenyl	92.9		52 - 132	93%	SPK: 100
118-79-6	2,4,6-Tribromophenol	133		44 - 137	88%	SPK: 150
1718-51-0	Terphenyl-d14	102		48 - 125	102%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	101000	6.869			
1146-65-2	Naphthalene-d8	378000	8.151			
15067-26-2	Acenaphthene-d10	214000	9.904			
1517-22-2	Phenanthrene-d10	408000	11.398			
1719-03-5	Chrysene-d12	220000	14.045			
1520-96-3	Perylene-d12	187000	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:	PB165052BL			SDG No.:	P4861
Lab Sample ID:	PB165052BL			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
BF140605.D	1	11/18/24 08:35	11/25/24 16:17	PB165052

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
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Report of Analysis

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB165052BS	SDG No.:	P4861
Lab Sample ID:	PB165052BS	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
BF140596.D	1	11/18/24 08:35	11/25/24 12:09	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	49.3		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	49.4		1.10	5.00	ug/L
65794-96-9	3+4-Methylphenols	49.2		1.20	10.0	ug/L
67-72-1	Hexachloroethane	46.3		1.00	5.00	ug/L
98-95-3	Nitrobenzene	44.6		1.30	5.00	ug/L
87-68-3	Hexachlorobutadiene	44.9		1.30	5.00	ug/L
88-06-2	2,4,6-Trichlorophenol	48.0		0.89	5.00	ug/L
95-95-4	2,4,5-Trichlorophenol	47.2		1.00	5.00	ug/L
121-14-2	2,4-Dinitrotoluene	48.7		1.50	5.00	ug/L
118-74-1	Hexachlorobenzene	46.6		1.10	5.00	ug/L
87-86-5	Pentachlorophenol	100	E	1.90	10.0	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	136		10 - 139	91%	SPK: 150
13127-88-3	Phenol-d6	133		10 - 134	89%	SPK: 150
4165-60-0	Nitrobenzene-d5	90.2		49 - 133	90%	SPK: 100
321-60-8	2-Fluorobiphenyl	91.1		52 - 132	91%	SPK: 100
118-79-6	2,4,6-Tribromophenol	143		44 - 137	95%	SPK: 150
1718-51-0	Terphenyl-d14	89.0		48 - 125	89%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	94700	6.869			
1146-65-2	Naphthalene-d8	366000	8.151			
15067-26-2	Acenaphthene-d10	205000	9.91			
1517-22-2	Phenanthrene-d10	399000	11.398			
1719-03-5	Chrysene-d12	259000	14.057			
1520-96-3	Perylene-d12	208000	15.556			

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Report of Analysis

Client:	AECOM			Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	
Client Sample ID:	PB165052BS			SDG No.:	P4861
Lab Sample ID:	PB165052BS			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
BF140596.D	1	11/18/24 08:35	11/25/24 12:09	PB165052

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:	11/14/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	TP-1MS	SDG No.:	P4861
Lab Sample ID:	P4848-02MS	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
BF140465.D	1	11/18/24 08:35	11/19/24 11:36	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	320		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	400		8.40	50.0	ug/L
95-48-7	2-Methylphenol	500		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	510		11.5	100	ug/L
67-72-1	Hexachloroethane	400		10.1	50.0	ug/L
98-95-3	Nitrobenzene	460		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	430		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	530		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	530		15.2	50.0	ug/L
118-74-1	Hexachlorobenzene	530		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1100	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	140		10 - 139	93%	SPK: 150
13127-88-3	Phenol-d6	136		10 - 134	91%	SPK: 150
4165-60-0	Nitrobenzene-d5	101		49 - 133	101%	SPK: 100
321-60-8	2-Fluorobiphenyl	99.0		52 - 132	99%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		44 - 137	106%	SPK: 150
1718-51-0	Terphenyl-d14	110		48 - 125	110%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	149000	6.875			
1146-65-2	Naphthalene-d8	566000	8.151			
15067-26-2	Acenaphthene-d10	313000	9.91			
1517-22-2	Phenanthrene-d10	585000	11.404			
1719-03-5	Chrysene-d12	348000	14.057			
1520-96-3	Perylene-d12	308000	15.568			

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:	11/14/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	TP-1MS	SDG No.:	P4861
Lab Sample ID:	P4848-02MS	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
BF140465.D	1	11/18/24 08:35	11/19/24 11:36	PB165052

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,
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Report of Analysis

Client:	AECOM	Date Collected:	11/14/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	TP-1MSD	SDG No.:	P4861
Lab Sample ID:	P4848-02MSD	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
BF140466.D	1	11/18/24 08:35	11/19/24 12:02	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
110-86-1	Pyridine	320		15.5	50.0	ug/L
106-46-7	1,4-Dichlorobenzene	410		8.40	50.0	ug/L
95-48-7	2-Methylphenol	510		11.3	50.0	ug/L
65794-96-9	3+4-Methylphenols	520		11.5	100	ug/L
67-72-1	Hexachloroethane	410		10.1	50.0	ug/L
98-95-3	Nitrobenzene	460		12.7	50.0	ug/L
87-68-3	Hexachlorobutadiene	440		12.7	50.0	ug/L
88-06-2	2,4,6-Trichlorophenol	550		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	540		11.4	50.0	ug/L
87-86-5	Pentachlorophenol	1100	E	18.5	100	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	144		10 - 139	96%	SPK: 150
13127-88-3	Phenol-d6	138		10 - 134	92%	SPK: 150
4165-60-0	Nitrobenzene-d5	104		49 - 133	104%	SPK: 100
321-60-8	2-Fluorobiphenyl	100		52 - 132	100%	SPK: 100
118-79-6	2,4,6-Tribromophenol	159		44 - 137	106%	SPK: 150
1718-51-0	Terphenyl-d14	113		48 - 125	113%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	148000	6.875			
1146-65-2	Naphthalene-d8	562000	8.151			
15067-26-2	Acenaphthene-d10	312000	9.91			
1517-22-2	Phenanthrene-d10	573000	11.398			
1719-03-5	Chrysene-d12	332000	14.063			
1520-96-3	Perylene-d12	279000	15.58			

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

Report of Analysis

Client:	AECOM			Date Collected:	11/14/24
Project:	Meeker Ave Plumes Superfund Site RI FS			Date Received:	11/14/24
Client Sample ID:	TP-1MSD			SDG No.:	P4861
Lab Sample ID:	P4848-02MSD			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
BF140466.D	1	11/18/24 08:35	11/19/24 12:02	PB165052

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
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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

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 13 14:40:06 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BF140332.D 5 =BF140333.D 10 =BF140334.D 20 =BF140335.D 40 =BF140340.D 50 =BF140337.D 60 =BF140338.D 80 =BF1403
39.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.582	0.546	0.530	0.515	0.495	0.506	0.480	0.522	6.53
3)		Pyridine		1.430	1.343	1.323	1.316	1.189	1.237	1.147	1.283	7.61
4)		n-Nitrosodimet...		0.658	0.632	0.651	0.659	0.644	0.671	0.627	0.649	2.39
5)	S	2-Fluorophenol		1.329	1.257	1.223	1.150	1.090	1.118	1.032	1.171	8.84
6)		Aniline		1.587	1.527	1.495	1.451	1.267	1.270	1.066	1.381	13.42
7)	S	Phenol-d6		1.773	1.691	1.643	1.605	1.483	1.507	1.407	1.587	8.09
8)		2-Chlorophenol		1.397	1.349	1.332	1.263	1.176	1.184	1.106	1.258	8.49
9)		Benzaldehyde		1.101	1.087	1.017	0.891	0.828	0.783		0.951	14.32
10)	C	Phenol		1.799	1.793	1.743	1.724	1.582	1.597	1.478	1.674	7.31
11)		bis(2-Chloroet...		1.359	1.294	1.306	1.263	1.227	1.249	1.179	1.268	4.60
12)		1,3-Dichlorobe...		1.585	1.475	1.454	1.374	1.291	1.317	1.221	1.388	8.98
13)	C	1,4-Dichlorobe...		1.590	1.534	1.486	1.391	1.306	1.326	1.221	1.408	9.49
14)		1,2-Dichlorobe...		1.494	1.429	1.398	1.294	1.212	1.214	1.108	1.307	10.63
15)		Benzyl Alcohol		1.172	1.193	1.199	1.211	1.100	1.108	1.020	1.143	6.10
16)		2,2'-oxybis(1-...		1.906	1.826	1.815	1.816	1.666	1.684	1.549	1.752	7.01
17)		2-Methylphenol		1.092	1.062	1.072	1.064	0.998	1.016	0.942	1.035	5.07
18)		Hexachloroethane		0.562	0.543	0.550	0.514	0.500	0.506	0.468	0.520	6.30
19)	P	n-Nitroso-di-n...	1.032	1.029	1.003	0.986	0.982	0.883	0.905	0.848	0.959	7.30
20)		3+4-Methylphenols		1.436	1.427	1.359	1.351	1.200	1.198	1.091	1.294	10.21
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.532	0.508	0.481	0.450	0.434	0.441	0.411	0.465	9.35
23)	S	Nitrobenzene-d5		0.411	0.401	0.399	0.375	0.368	0.379	0.354	0.384	5.28
24)		Nitrobenzene		0.423	0.421	0.406	0.393	0.390	0.394	0.371	0.400	4.61
25)		Isophorone		0.736	0.702	0.692	0.674	0.654	0.671	0.634	0.680	4.87
26)	C	2-Nitrophenol		0.175	0.179	0.181	0.179	0.175	0.181	0.171	0.177	1.99
27)		2,4-Dimethylph...		0.238	0.236	0.232	0.223	0.221	0.227	0.214	0.227	3.86
28)		bis(2-Chloroet...		0.461	0.442	0.430	0.407	0.398	0.404	0.379	0.417	6.80
29)	C	2,4-Dichloroph...		0.307	0.296	0.287	0.275	0.272	0.272	0.255	0.281	6.20
30)		1,2,4-Trichlor...		0.346	0.331	0.325	0.302	0.298	0.301	0.283	0.312	7.15
31)		Naphthalene		1.160	1.105	1.064	0.982	0.950	0.955	0.886	1.015	9.60
32)		Benzoic acid		0.162	0.178	0.180	0.212	0.215	0.226	0.226	0.200	13.01
33)		4-Chloroaniline		0.390	0.386	0.370	0.340	0.333	0.340	0.311	0.353	8.36
34)	C	Hexachlorobuta...		0.220	0.214	0.210	0.193	0.188	0.190	0.178	0.199	7.73
35)		Caprolactam		0.098	0.093	0.094	0.092	0.091	0.095	0.089	0.093	3.27
36)	C	4-Chloro-3-met...		0.331	0.327	0.320	0.309	0.299	0.304	0.287	0.311	5.14
37)		2-Methylnaphth...		0.751	0.706	0.683	0.632	0.610	0.607	0.565	0.651	10.01
38)		1-Methylnaphth...		0.734	0.696	0.673	0.625	0.589	0.592	0.550	0.637	10.39

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.646	0.585	0.583	0.531	0.524	0.517	0.485	0.553	9.85
41)	P	Hexachlorocycl...		0.111	0.143	0.139	0.156	0.159	0.145	0.142	12.04
42)	S	2,4,6-Tribromo...	0.220	0.211	0.207	0.193	0.191	0.189	0.182	0.199	6.88
43)	C	2,4,6-Trichlor...	0.380	0.374	0.374	0.360	0.360	0.352	0.341	0.363	3.87
44)		2,4,5-Trichlor...	0.421	0.417	0.412	0.389	0.387	0.390	0.361	0.397	5.41
45)	S	2-Fluorobiphenyl	1.524	1.396	1.351	1.172	1.125	1.110	1.031	1.244	14.50
46)		1,1'-Biphenyl	1.690	1.571	1.565	1.404	1.368	1.343	1.244	1.455	10.80
47)		2-Chloronaphth...	1.279	1.182	1.149	1.065	1.064	1.049	0.971	1.108	9.20
48)		2-Nitroaniline	0.378	0.365	0.384	0.364	0.365	0.366	0.351	0.368	2.91
49)		Acenaphthylene	1.940	1.802	1.786	1.636	1.582	1.552	1.441	1.677	10.29
50)		Dimethylphthalate	1.464	1.358	1.371	1.261	1.246	1.244	1.181	1.304	7.47
51)		2,6-Dinitrotol...	0.317	0.303	0.313	0.297	0.291	0.289	0.268	0.297	5.57
52)	C	Acenaphthene	1.259	1.204	1.192	1.096	1.091	1.079	1.006	1.133	7.78
53)		3-Nitroaniline	0.333	0.327	0.335	0.310	0.307	0.298	0.275	0.312	6.92
54)	P	2,4-Dinitrophenol		0.109	0.148	0.147	0.178	0.170	0.168	0.153	16.27
55)		Dibenzofuran	1.904	1.736	1.715	1.558	1.502	1.466	1.344	1.603	11.92
56)	P	4-Nitrophenol	0.199	0.217	0.239	0.236	0.240	0.237	0.225	0.228	6.67
57)		2,4-Dinitrotol...	0.414	0.400	0.417	0.387	0.387	0.382	0.351	0.391	5.77
58)		Fluorene	1.525	1.403	1.365	1.202	1.168	1.137	1.066	1.267	13.14
59)		2,3,4,6-Tetrac...	0.322	0.328	0.326	0.318	0.308	0.302	0.288	0.313	4.61
60)		Diethylphthalate	1.525	1.417	1.398	1.287	1.272	1.246	1.185	1.333	8.85
61)		4-Chlorophenyl...	0.739	0.688	0.669	0.604	0.583	0.567	0.528	0.625	12.01
62)		4-Nitroaniline	0.335	0.325	0.328	0.319	0.316	0.313	0.297	0.319	3.86
63)		Azobenzene	1.498	1.391	1.380	1.293	1.251	1.244	1.163	1.317	8.55
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...	0.080	0.098	0.113	0.109	0.117	0.120	0.116	0.108	13.00
66)	c	n-Nitrosodiphe...	0.651	0.630	0.600	0.559	0.541	0.541	0.522	0.578	8.57
67)		4-Bromophenyl-...	0.227	0.210	0.209	0.194	0.191	0.188	0.180	0.200	8.14
68)		Hexachlorobenzene	0.251	0.242	0.232	0.218	0.209	0.215	0.208	0.225	7.54
69)		Atrazine	0.191	0.183	0.135	0.145	0.155	0.205	0.209	0.175	17.03
70)	C	Pentachlorophenol	0.097	0.108	0.124	0.127	0.131	0.130	0.130	0.121	10.87
71)		Phenanthrene	1.096	1.053	0.986	0.903	0.868	0.851	0.820	0.940	11.33
72)		Anthracene	1.071	1.018	0.966	0.889	0.860	0.839	0.803	0.921	10.81
73)		Carbazole	1.053	1.009	0.963	0.876	0.846	0.834	0.783	0.909	11.02
74)		Di-n-butylphth...	1.214	1.177	1.150	1.074	1.036	1.023	0.964	1.091	8.37
75)	C	Fluoranthene	1.256	1.201	1.141	1.018	0.962	0.933	0.867	1.054	13.92
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine		0.634	0.684	0.653	0.742	0.953	0.939	0.768	18.64
78)		Pyrene	1.748	1.706	1.643	1.679	1.728	1.800	1.672	1.711	3.08
79)	S	Terphenyl-d14	1.226	1.185	1.108	1.123	1.139	1.190	1.093	1.152	4.26
80)		Butylbenzylpht...	0.640	0.638	0.654	0.690	0.670	0.681	0.628	0.657	3.56
81)		Benzo(a)anthra...	1.451	1.418	1.351	1.263	1.229	1.294	1.195	1.314	7.31
82)		3,3'-Dichlorob...	0.438	0.431	0.433	0.402	0.406	0.416	0.399	0.418	3.79
83)		Chrysene	1.394	1.241	1.235	1.168	1.137	1.123	1.099	1.199	8.44
84)		Bis(2-ethylhex...	0.886	0.890	0.897	0.927	0.858	0.869	0.813	0.877	4.07
85)	c	Di-n-octyl pht...	1.231	1.217	1.270	1.290	1.187	1.241	1.212	1.235	2.86

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF111324.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.116	1.150	1.138	1.258	1.316	1.354	1.317	1.235	8.02
88)		Benzo(b)fluora...	1.405	1.352	1.471	1.263	1.235	1.233	1.199	1.308	7.82
89)		Benzo(k)fluora...	1.286	1.241	1.120	1.060	0.952	0.935	0.888	1.069	14.47
90)	C	Benzo(a)pyrene	1.100	1.053	1.054	1.005	0.970	0.980	0.948	1.016	5.40
91)		Dibenzo(a,h)an...	0.941	0.952	0.944	1.039	1.074	1.121	1.077	1.021	7.30
92)		Benzo(g,h,i)pe...	0.941	0.963	0.954	1.063	1.122	1.146	1.120	1.044	8.55

(#) = Out of Range

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

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861

Instrument ID: BNA_F Calibration Date/Time: 11/18/2024 16:14

Lab File ID: BF140456.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.283	1.283		0.0	
2-Fluorophenol	1.171	1.145		-2.2	
Phenol-d6	1.587	1.518		-4.3	
1,4-Dichlorobenzene	1.408	1.381		-1.9	20.0
2-Methylphenol	1.035	0.997		-3.7	
3+4-Methylphenols	1.295	1.232		-4.9	
Nitrobenzene-d5	0.384	0.371		-3.4	
Hexachloroethane	0.520	0.518		-0.4	
Nitrobenzene	0.400	0.389		-2.8	
Hexachlorobutadiene	0.199	0.198		-0.5	20.0
2,4,6-Trichlorophenol	0.363	0.357		-1.7	20.0
2-Fluorobiphenyl	1.244	1.247		0.2	
2,4,5-Trichlorophenol	0.397	0.402		1.3	
2,4-Dinitrotoluene	0.391	0.388		-0.8	
2,4,6-Tribromophenol	0.199	0.196		-1.5	
Hexachlorobenzene	0.225	0.232		3.1	
Pentachlorophenol	0.121	0.115		-5.0	20.0
Terphenyl-d14	1.152	1.275		10.7	

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.: P4861 SAS No.: P4861 SDG No.: P4861

Instrument ID: BNA_F Calibration Date/Time: 11/19/2024 10:34

Lab File ID: BF140463.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 09:01 12:48

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Pyridine	1.283	1.308		1.9	
2-Fluorophenol	1.171	1.209		3.2	
Phenol-d6	1.587	1.607		1.3	
1,4-Dichlorobenzene	1.408	1.437		2.1	20.0
2-Methylphenol	1.035	1.061		2.5	
3+4-Methylphenols	1.295	1.288		-0.5	
Nitrobenzene-d5	0.384	0.393		2.3	
Hexachloroethane	0.520	0.523		0.6	
Nitrobenzene	0.400	0.412		3.0	
Hexachlorobutadiene	0.199	0.203		2.0	20.0
2,4,6-Trichlorophenol	0.363	0.376		3.6	20.0
2-Fluorobiphenyl	1.244	1.257		1.0	
2,4,5-Trichlorophenol	0.397	0.420		5.8	
2,4-Dinitrotoluene	0.391	0.413		5.6	
2,4,6-Tribromophenol	0.199	0.209		5.0	
Hexachlorobenzene	0.225	0.231		2.7	
Pentachlorophenol	0.121	0.124		2.5	20.0
Terphenyl-d14	1.152	1.112		-3.5	

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.: P4861 SAS No.: P4861 SDG No.: P4861

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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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG No.: P4861

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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LAB CHRONICLE

OrderID:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**TCLP**			**11/13/24**			**11/14/24**
			TCLP Pesticide	8081B		11/16/24	11/18/24	
			PCB	8082A		11/15/24	11/15/24	

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Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: P4861 **Order ID:** P4861

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

Report of Analysis

Client:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	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
PL093129.D	1	11/16/24 11:30	11/18/24 17:16	PB165053

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	18.6		43 - 140	93%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.1		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

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:	11/16/24
Client Sample ID:	PB165019TB	SDG No.:	P4861
Lab Sample ID:	PB165019TB	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
PL093128.D	1	11/16/24 11:30	11/18/24 17:02	PB165053

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	19.8		43 - 140	99%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.5		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

QC SUMMARY

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

Surrogate Summary

SDG No.: P4861

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-PL093110.D	PIBLK-PL093110.D	Decachlorobiphenyl	1	20	20.4	102		43	140
		Tetrachloro-m-xylene	1	20	20.6	103		77	126
		Decachlorobiphenyl	2	20	20.6	103		43	140
		Tetrachloro-m-xylene	2	20	20.7	104		77	126
PB165053BL	PB165053BL	Decachlorobiphenyl	1	20	18.1	90		43	140
		Tetrachloro-m-xylene	1	20	20.4	102		77	126
		Decachlorobiphenyl	2	20	19.6	98		43	140
		Tetrachloro-m-xylene	2	20	20.4	102		77	126
PB165053BS	PB165053BS	Decachlorobiphenyl	1	20	18.7	93		43	140
		Tetrachloro-m-xylene	1	20	20.9	105		77	126
		Decachlorobiphenyl	2	20	19.4	97		43	140
		Tetrachloro-m-xylene	2	20	20.1	100		77	126
PB165019TB	PB165019TB	Decachlorobiphenyl	1	20	19.7	99		43	140
		Tetrachloro-m-xylene	1	20	20.5	102		77	126
		Decachlorobiphenyl	2	20	19.8	99		43	140
		Tetrachloro-m-xylene	2	20	20.5	103		77	126
P4861-01	WC-11-A-202411	Decachlorobiphenyl	1	20	17.9	89		43	140
		Tetrachloro-m-xylene	1	20	19.2	96		77	126
		Decachlorobiphenyl	2	20	18.6	93		43	140
		Tetrachloro-m-xylene	2	20	21.1	105		77	126
P4861-01MS	WC-11-A-202411MS	Decachlorobiphenyl	1	20	16.6	83		43	140
		Tetrachloro-m-xylene	1	20	20.4	102		77	126
		Decachlorobiphenyl	2	20	17.5	87		43	140
		Tetrachloro-m-xylene	2	20	19.9	100		77	126
P4861-01MSD	WC-11-A-202411MSD	Decachlorobiphenyl	1	20	16.5	83		43	140
		Tetrachloro-m-xylene	1	20	20.1	100		77	126
		Decachlorobiphenyl	2	20	17.4	87		43	140
		Tetrachloro-m-xylene	2	20	19.5	98		77	126
I.BLK-PL093133.D	PIBLK-PL093133.D	Decachlorobiphenyl	1	20	19.4	97		43	140
		Tetrachloro-m-xylene	1	20	20.1	101		77	126
		Decachlorobiphenyl	2	20	20.3	102		43	140
		Tetrachloro-m-xylene	2	20	20.5	102		77	126

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8081B **DataFile :** PL093130.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:	**WC-11-A-202411MS**											
P4861-01MS	gamma-BHC (Lindane)	5	0	5.50	ug/L	110				60	152	
	Heptachlor	5	0	6.00	ug/L	120				56	147	
	Heptachlor epoxide	5	0	5.70	ug/L	114				77	143	
	Endrin	5	0	6.10	ug/L	122				76	144	
	Methoxychlor	5	0	5.60	ug/L	112				70	142	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8081B **DataFile :** PL093131.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:	**WC-11-A-202411MSD**											
P4861-01MSD	gamma-BHC (Lindane)	5	0	5.40	ug/L	108		2		60	152	20
	Heptachlor	5	0	5.90	ug/L	118		2		56	147	20
	Heptachlor epoxide	5	0	5.60	ug/L	112		2		77	143	20
	Endrin	5	0	6.00	ug/L	120		2		76	144	20
	Methoxychlor	5	0	5.50	ug/L	110		2		70	142	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8081B **Datafile :** PL093127.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165053BS	gamma-BHC (Lindane)	0.5	0.50	ug/L	101				82	129	
	Heptachlor	0.5	0.54	ug/L	107				79	127	
	Heptachlor epoxide	0.5	0.53	ug/L	106				81	124	
	Endrin	0.5	0.52	ug/L	104				81	128	
	Methoxychlor	0.5	0.50	ug/L	99				78	108	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165053BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab Sample ID: PB165053BL Lab File ID: PL093126.D

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

Sulfur Cleanup: (Y/N) N Date Extracted: 11/16/2024

Date Analyzed (1): 11/18/2024 Date Analyzed (2): 11/18/2024

Time Analyzed (1): 16:36 Time Analyzed (2): 16:36

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
PB165053BS	PB165053BS	PL093127.D	11/18/2024	11/18/2024
PB165019TB	PB165019TB	PL093128.D	11/18/2024	11/18/2024
WC-11-A-202411	P4861-01	PL093129.D	11/18/2024	11/18/2024
WC-11-A-202411MS	P4861-01MS	PL093130.D	11/18/2024	11/18/2024
WC-11-A-202411MSD	P4861-01MSD	PL093131.D	11/18/2024	11/18/2024

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:	PB165053BL	SDG No.:	P4861
Lab Sample ID:	PB165053BL	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
PL093126.D	1	11/16/24 11:30	11/18/24 16:36	PB165053

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	19.6		43 - 140	98%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.4		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:	10/28/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	10/28/24
Client Sample ID:	PIBLK-PL092652.D	SDG No.:	P4861
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:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
B = Analyte Found in Associated Method Blank
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() = Laboratory InHouse Limit

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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-PL093110.D	SDG No.:	P4861
Lab Sample ID:	I.BLK-PL093110.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
PL093110.D	1		11/18/24	pl111824

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	20.6		43 - 140	103%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.7		77 - 126	104%	SPK: 20

Comments:

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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
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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:	11/18/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/18/24
Client Sample ID:	PIBLK-PL093133.D	SDG No.:	P4861
Lab Sample ID:	I.BLK-PL093133.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
PL093133.D	1		11/18/24	pl111824

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	20.3		43 - 140	102%	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
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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:	PB165053BS	SDG No.:	P4861
Lab Sample ID:	PB165053BS	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
PL093127.D	1	11/16/24 11:30	11/18/24 16:49	PB165053

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	0.54		0.0054	0.050	ug/L
1024-57-3	Heptachlor epoxide	0.53		0.0090	0.050	ug/L
72-20-8	Endrin	0.52		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	19.4		43 - 140	97%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.9		77 - 126	105%	SPK: 20

Comments:

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LOD = Limit of Detection
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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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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:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411MS	SDG No.:	P4861
Lab Sample ID:	P4861-01MS	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
PL093130.D	1	11/16/24 11:30	11/18/24 17:29	PB165053

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
58-89-9	gamma-BHC (Lindane)	5.50		0.049	0.50	ug/L
76-44-8	Heptachlor	6.00		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.70		0.090	0.50	ug/L
72-20-8	Endrin	6.10		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.60		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	17.5		43 - 140	87%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.4		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

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411MSD	SDG No.:	P4861
Lab Sample ID:	P4861-01MSD	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
PL093131.D	1	11/16/24 11:30	11/18/24 17:42	PB165053

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	5.90		0.054	0.50	ug/L
1024-57-3	Heptachlor epoxide	5.60		0.090	0.50	ug/L
72-20-8	Endrin	6.00		0.043	0.50	ug/L
72-43-5	Methoxychlor	5.50		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	17.4		43 - 140	87%	SPK: 20
877-09-8	Tetrachloro-m-xylene	20.1		77 - 126	100%	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

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

RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/18/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 13:32 **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	4.92	4.92	4.82	5.02	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.58	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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/18/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 13:32 **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	0.00
Tetrachloro-m-xylene	2.78	2.78	2.68	2.88	0.00
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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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

Client Sample No.: CCAL01 **Date Analyzed:** 11/18/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093112.D **Time Analyzed:** 13:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.057	8.954	9.154	46.500	50.000	-7.0
Endrin	6.575	6.474	6.674	47.010	50.000	-6.0
gamma-BHC (Lindane)	4.327	4.228	4.428	50.430	50.000	0.9
Heptachlor	4.916	4.817	5.017	48.620	50.000	-2.8
Heptachlor epoxide	5.684	5.584	5.784	48.080	50.000	-3.8
Methoxychlor	7.501	7.399	7.599	46.550	50.000	-6.9
Tetrachloro-m-xylene	3.539	3.440	3.640	50.600	50.000	1.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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

Client Sample No.: CCAL01 **Date Analyzed:** 11/18/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093112.D **Time Analyzed:** 13:32

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.916	7.816	8.016	49.310	50.000	-1.4
Endrin	5.640	5.541	5.741	54.960	50.000	9.9
gamma-BHC (Lindane)	3.610	3.511	3.711	54.390	50.000	8.8
Heptachlor	3.949	3.849	4.049	53.560	50.000	7.1
Heptachlor epoxide	4.731	4.632	4.832	54.300	50.000	8.6
Methoxychlor	6.614	6.515	6.715	51.800	50.000	3.6
Tetrachloro-m-xylene	2.777	2.678	2.878	52.890	50.000	5.8

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/18/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 18:21 **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	4.92	4.92	4.82	5.02	0.00
Heptachlor epoxide	5.68	5.68	5.58	5.78	0.00
Endrin	6.58	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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/18/2024 **Initial Calibration Date(s):** 10/28/2024 10/28/2024

Continuing Calib Time: 18:21 **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	2.78	2.78	2.68	2.88	0.00
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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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

Client Sample No.: CCAL02 **Date Analyzed:** 11/18/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093134.D **Time Analyzed:** 18:21

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.954	9.154	46.980	50.000	-6.0
Endrin	6.575	6.474	6.674	45.630	50.000	-8.7
gamma-BHC (Lindane)	4.328	4.228	4.428	50.460	50.000	0.9
Heptachlor	4.916	4.817	5.017	48.170	50.000	-3.7
Heptachlor epoxide	5.684	5.584	5.784	48.220	50.000	-3.6
Methoxychlor	7.500	7.399	7.599	42.500	50.000	-15.0
Tetrachloro-m-xylene	3.540	3.440	3.640	49.920	50.000	-0.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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

Client Sample No.: CCAL02 **Date Analyzed:** 11/18/2024

Lab Sample No.: PSTDCCC050 **Data File :** PL093134.D **Time Analyzed:** 18:21

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.915	7.816	8.016	51.160	50.000	2.3
Endrin	5.641	5.541	5.741	53.880	50.000	7.8
gamma-BHC (Lindane)	3.610	3.511	3.711	55.180	50.000	10.4
Heptachlor	3.949	3.849	4.049	53.770	50.000	7.5
Heptachlor epoxide	4.731	4.632	4.832	55.490	50.000	11.0
Methoxychlor	6.614	6.515	6.715	48.760	50.000	-2.5
Tetrachloro-m-xylene	2.778	2.678	2.878	53.760	50.000	7.5

Alliance TECHNICAL GROUP
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PESTICIDE CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

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

Client Sample No. (PEM): PEM - PL093111.D **Date Analyzed:** 11/18/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 13:19

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	9.056	8.960	9.160	19.590	20.000	-2.1
Tetrachloro-m-xylene	3.539	3.490	3.590	21.050	20.000	5.3
alpha-BHC	3.994	3.940	4.040	10.790	10.000	7.9
beta-BHC	4.525	4.470	4.580	11.350	10.000	13.5
gamma-BHC (Lindane)	4.327	4.280	4.380	10.510	10.000	5.1
Endrin	6.573	6.500	6.640	42.900	50.000	-14.2
4,4'-DDT	7.024	6.950	7.090	86.130	100.000	-13.9
Methoxychlor	7.501	7.430	7.570	203.180	250.000	-18.7

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

Client Sample No. (PEM): PEM - PL093111.D **Date Analyzed:** 11/18/2024

Lab Sample No.(PEM): PEM **Time Analyzed:** 13:19

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Decachlorobiphenyl	7.915	7.810	8.020	19.480	20.000	-2.6
Tetrachloro-m-xylene	2.777	2.730	2.830	20.570	20.000	2.9
alpha-BHC	3.279	3.230	3.330	9.860	10.000	-1.4
beta-BHC	3.909	3.860	3.960	10.850	10.000	8.5
gamma-BHC (Lindane)	3.609	3.560	3.660	9.470	10.000	-5.3
Endrin	5.640	5.570	5.710	49.940	50.000	-0.1
4,4'-DDT	6.038	5.970	6.110	106.700	100.000	6.7
Methoxychlor	6.614	6.540	6.680	238.650	250.000	-4.5

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Analytical Sequence

Client: AECOM **SDG No.:** P4861

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	11/18/2024	13:05	PL093110.D	9.06	3.54
PEM	PEM	11/18/2024	13:19	PL093111.D	9.06	3.54
PSTDCCC050	PSTDCCC050	11/18/2024	13:32	PL093112.D	9.06	3.54
PB165053BL	PB165053BL	11/18/2024	16:36	PL093126.D	9.06	3.54
PB165053BS	PB165053BS	11/18/2024	16:49	PL093127.D	9.06	3.54
PB165019TB	PB165019TB	11/18/2024	17:02	PL093128.D	9.05	3.54
WC-11-A-202411	P4861-01	11/18/2024	17:16	PL093129.D	9.06	3.54
WC-11-A-202411MS	P4861-01MS	11/18/2024	17:29	PL093130.D	9.06	3.54
WC-11-A-202411MSD	P4861-01MSD	11/18/2024	17:42	PL093131.D	9.06	3.54
I.BLK	I.BLK	11/18/2024	18:08	PL093133.D	9.06	3.54
PSTDCCC050	PSTDCCC050	11/18/2024	18:21	PL093134.D	9.06	3.54

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Analytical Sequence

Client: AECOM **SDG No.:** P4861

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	11/18/2024	13:05	PL093110.D	7.92	2.78
PEM	PEM	11/18/2024	13:19	PL093111.D	7.92	2.78
PSTDCCC050	PSTDCCC050	11/18/2024	13:32	PL093112.D	7.92	2.78
PB165053BL	PB165053BL	11/18/2024	16:36	PL093126.D	7.92	2.78
PB165053BS	PB165053BS	11/18/2024	16:49	PL093127.D	7.92	2.78
PB165019TB	PB165019TB	11/18/2024	17:02	PL093128.D	7.92	2.78
WC-11-A-202411	P4861-01	11/18/2024	17:16	PL093129.D	7.92	2.78
WC-11-A-202411MS	P4861-01MS	11/18/2024	17:29	PL093130.D	7.93	2.79
WC-11-A-202411MSD	P4861-01MSD	11/18/2024	17:42	PL093131.D	7.92	2.78
I.BLK	I.BLK	11/18/2024	18:08	PL093133.D	7.92	2.78
PSTDCCC050	PSTDCCC050	11/18/2024	18:21	PL093134.D	7.92	2.78

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
PB165053BS

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Lab Sample ID: PB165053BS **Date(s) Analyzed:** 11/18/2024 11/18/2024

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
Endrin	1	6.57	6.52	6.62	0.43	18.8
	2	5.64	5.59	5.69	0.52	
Methoxychlor	1	7.50	7.45	7.55	0.44	12.6
	2	6.61	6.56	6.66	0.50	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	0.46	8.3
	2	3.61	3.56	3.66	0.50	
Heptachlor	1	4.92	4.87	4.97	0.48	11.3
	2	3.95	3.90	4.00	0.54	
Heptachlor epoxide	1	5.69	5.64	5.74	0.46	15
	2	4.73	4.68	4.78	0.53	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
WC-11-A-202411MS

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Lab Sample ID: P4861-01MS **Date(s) Analyzed:** 11/18/2024 11/18/2024

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	4.90	13.3
	2	6.63	6.58	6.68	5.60	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.20	5.6
	2	3.62	3.57	3.67	5.50	
Heptachlor	1	4.92	4.87	4.97	5.20	14.3
	2	3.96	3.91	4.01	6.00	
Heptachlor epoxide	1	5.68	5.63	5.73	5.10	11.1
	2	4.74	4.69	4.79	5.70	
Endrin	1	6.57	6.52	6.62	5.10	17.9
	2	5.65	5.60	5.70	6.10	

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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.
WC-11-A-202411MSD

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Lab Sample ID: P4861-01MSD **Date(s) Analyzed:** 11/18/2024 11/18/2024

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
Endrin	1	6.57	6.52	6.62	5.10	16.2
	2	5.64	5.59	5.69	6.00	
Methoxychlor	1	7.50	7.45	7.55	4.80	13.6
	2	6.61	6.56	6.66	5.50	
gamma-BHC (Lindane)	1	4.33	4.28	4.38	5.10	5.7
	2	3.61	3.56	3.66	5.40	
Heptachlor	1	4.92	4.87	4.97	5.10	14.5
	2	3.95	3.90	4.00	5.90	
Heptachlor epoxide	1	5.68	5.63	5.73	5.00	11.3
	2	4.73	4.68	4.78	5.60	

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LAB CHRONICLE

OrderID:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**WATER**			**11/13/24**			**11/14/24**
			PCB	8082A		11/15/24	11/15/24	

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Hit Summary Sheet
SW-846

SDG No.: P4861 **Order ID:** P4861

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:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	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
PP068519.D	1	11/15/24 08:21	11/15/24 22:51	PB164990

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	20.0		10 - 157	100%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.4		10 - 173	82%	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.: P4861

Client: AECOM

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PP068360.D	PIBLK-PP068360.D	Tetrachloro-m-xylene	1	20	21.0	105		60	140
		Decachlorobiphenyl	1	20	23.4	117		60	140
		Tetrachloro-m-xylene	2	20	21.6	108		60	140
		Decachlorobiphenyl	2	20	23.6	118		60	140
I.BLK-PP068514.D	PIBLK-PP068514.D	Tetrachloro-m-xylene	1	20	20.5	103		60	140
		Decachlorobiphenyl	1	20	21.0	105		60	140
		Tetrachloro-m-xylene	2	20	21.4	107		60	140
		Decachlorobiphenyl	2	20	20.3	101		60	140
PB164990BL	PB164990BL	Tetrachloro-m-xylene	1	20	19.4	97		10	157
		Decachlorobiphenyl	1	20	19.9	100		10	173
		Tetrachloro-m-xylene	2	20	20.1	100		10	157
		Decachlorobiphenyl	2	20	20.1	100		10	173
PB164990BS	PB164990BS	Tetrachloro-m-xylene	1	20	20.1	101		10	157
		Decachlorobiphenyl	1	20	20.4	102		10	173
		Tetrachloro-m-xylene	2	20	20.7	104		10	157
		Decachlorobiphenyl	2	20	20.1	100		10	173
PB164990BSD	PB164990BSD	Tetrachloro-m-xylene	1	20	19.8	99		10	157
		Decachlorobiphenyl	1	20	20.1	101		10	173
		Tetrachloro-m-xylene	2	20	20.2	101		10	157
		Decachlorobiphenyl	2	20	20.1	100		10	173
P4861-01	WC-11-A-202411	Tetrachloro-m-xylene	1	20	19.3	96		10	157
		Decachlorobiphenyl	1	20	16.4	82		10	173
		Tetrachloro-m-xylene	2	20	20.0	100		10	157
		Decachlorobiphenyl	2	20	16.2	81		10	173
I.BLK-PP068528.D	PIBLK-PP068528.D	Tetrachloro-m-xylene	1	20	20.3	102		60	140
		Decachlorobiphenyl	1	20	21.5	108		60	140
		Tetrachloro-m-xylene	2	20	21.6	108		60	140
		Decachlorobiphenyl	2	20	22.2	111		60	140

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8082A **Datafile :** PP068516.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB164990BS	AR1016	5	4.40	ug/L	88				61	112	
	AR1260	5	4.20	ug/L	84				66	113	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4861

Client: AECOM

Analytical Method: 8082A **Datafile :** PP068517.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB164990BSD	AR1016	5	4.40	ug/L	88	0			61	112	20
	AR1260	5	4.10	ug/L	82	2			66	113	20

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164990BL

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4861 SAS No.: P4861 SDG NO.: P4861

Lab Sample ID: PB164990BL Lab File ID: PP068515.D

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

Sulfur Cleanup: (Y/N) N Date Extracted: 11/15/2024

Date Analyzed (1): 11/15/2024 Date Analyzed (2): 11/15/2024

Time Analyzed (1): 21:46 Time Analyzed (2): 21:46

Instrument ID (1): ECD_P Instrument ID (2): ECD_P

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
PB164990BS	PB164990BS	PP068516.D	11/15/2024	11/15/2024
PB164990BSD	PB164990BSD	PP068517.D	11/15/2024	11/15/2024
WC-11-A-202411	P4861-01	PP068519.D	11/15/2024	11/15/2024

COMMENTS:

CALIBRATION SUMMARY

Alliance TECHNICAL GROUP
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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Calibration Date(s):** 11/08/2024 11/08/2024

Calibration Times: 02:45 10:39

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

LAB FILE ID: RT 1000 = PP068361.D RT 750 = PP068362.D

RT 500 = PP068363.D RT 250 = PP068364.D RT 050 = PP068365.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.92	5.93	5.92	5.92	5.92	5.92	5.82	6.02
Aroclor-1016-2	(2)	5.94	5.95	5.94	5.95	5.94	5.95	5.85	6.05
Aroclor-1016-3	(3)	6.01	6.01	6.01	6.01	6.01	6.01	5.91	6.11
Aroclor-1016-4	(4)	6.11	6.11	6.11	6.11	6.10	6.11	6.01	6.21
Aroclor-1016-5	(5)	6.40	6.40	6.40	6.40	6.40	6.40	6.30	6.50
Aroclor-1260-1	(1)	7.52	7.53	7.52	7.52	7.52	7.52	7.42	7.62
Aroclor-1260-2	(2)	7.78	7.78	7.78	7.78	7.78	7.78	7.68	7.88
Aroclor-1260-3	(3)	8.14	8.14	8.14	8.14	8.14	8.14	8.04	8.24
Aroclor-1260-4	(4)	8.38	8.38	8.38	8.38	8.38	8.38	8.28	8.48
Aroclor-1260-5	(5)	8.72	8.72	8.71	8.72	8.71	8.72	8.62	8.82
Decachlorobiphenyl		10.67	10.68	10.67	10.68	10.67	10.67	10.57	10.77
Tetrachloro-m-xylene		4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86
Aroclor-1242-1	(1)	5.93	5.92	5.92	5.92	5.92	5.92	5.82	6.02
Aroclor-1242-2	(2)	5.95	5.94	5.95	5.94	5.95	5.95	5.85	6.05
Aroclor-1242-3	(3)	6.01	6.01	6.01	6.01	6.01	6.01	5.91	6.11
Aroclor-1242-4	(4)	6.11	6.11	6.11	6.11	6.11	6.11	6.01	6.21
Aroclor-1242-5	(5)	6.84	6.84	6.84	6.84	6.84	6.84	6.74	6.94
Decachlorobiphenyl		10.67	10.67	10.67	10.67	10.68	10.67	10.57	10.77
Tetrachloro-m-xylene		4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86
Aroclor-1248-1	(1)	5.92	5.93	5.92	5.92	5.92	5.92	5.82	6.02
Aroclor-1248-2	(2)	6.19	6.20	6.19	6.19	6.20	6.20	6.10	6.30
Aroclor-1248-3	(3)	6.40	6.40	6.40	6.40	6.40	6.40	6.30	6.50
Aroclor-1248-4	(4)	6.80	6.80	6.80	6.80	6.80	6.80	6.70	6.90
Aroclor-1248-5	(5)	6.84	6.84	6.84	6.84	6.84	6.84	6.74	6.94
Decachlorobiphenyl		10.67	10.68	10.67	10.67	10.67	10.67	10.57	10.77
Tetrachloro-m-xylene		4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86
Aroclor-1254-1	(1)	6.77	6.78	6.78	6.77	6.77	6.78	6.68	6.88
Aroclor-1254-2	(2)	6.99	7.00	7.00	6.99	6.99	6.99	6.89	7.09
Aroclor-1254-3	(3)	7.36	7.36	7.36	7.36	7.36	7.36	7.26	7.46
Aroclor-1254-4	(4)	7.64	7.64	7.64	7.64	7.64	7.64	7.54	7.74
Aroclor-1254-5	(5)	8.06	8.06	8.06	8.06	8.06	8.06	7.96	8.16
Decachlorobiphenyl		10.67	10.67	10.67	10.67	10.67	10.67	10.57	10.77
Tetrachloro-m-xylene		4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86
Aroclor-1268-1	(1)	9.05	9.05	9.05	9.05	9.05	9.05	8.95	9.15
Aroclor-1268-2	(2)	9.15	9.15	9.15	9.15	9.15	9.15	9.05	9.25
Aroclor-1268-3	(3)	9.40	9.40	9.40	9.40	9.40	9.40	9.30	9.50
Aroclor-1268-4	(4)	9.84	9.85	9.85	9.85	9.84	9.85	9.75	9.95
Aroclor-1268-5	(5)	10.29	10.30	10.30	10.30	10.30	10.30	10.20	10.40

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	10.67	10.67	10.67	10.67	10.67	10.67	10.57	10.77
Tetrachloro-m-xylene	4.76	4.76	4.76	4.76	4.76	4.76	4.66	4.86

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Calibration Date(s):** 11/08/2024 11/08/2024

Calibration Times: 02:45 10:39

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

LAB FILE ID: RT 1000 = PP068361.D RT 750 = PP068362.D

RT 500 = PP068363.D RT 250 = PP068364.D RT 050 = PP068365.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.16	5.16	5.16	5.16	5.16	5.16	5.06	5.26
Aroclor-1016-2	(2)	5.18	5.18	5.18	5.18	5.18	5.18	5.08	5.28
Aroclor-1016-3	(3)	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
Aroclor-1016-4	(4)	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
Aroclor-1016-5	(5)	5.62	5.62	5.62	5.62	5.62	5.62	5.52	5.72
Aroclor-1260-1	(1)	6.66	6.66	6.66	6.66	6.66	6.66	6.56	6.76
Aroclor-1260-2	(2)	6.85	6.85	6.85	6.85	6.85	6.85	6.75	6.95
Aroclor-1260-3	(3)	7.01	7.01	7.01	7.00	7.00	7.01	6.91	7.11
Aroclor-1260-4	(4)	7.48	7.48	7.48	7.48	7.48	7.48	7.38	7.58
Aroclor-1260-5	(5)	7.72	7.72	7.72	7.72	7.72	7.72	7.62	7.82
Decachlorobiphenyl		9.21	9.21	9.21	9.21	9.21	9.21	9.11	9.31
Tetrachloro-m-xylene		4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Aroclor-1242-1	(1)	5.16	5.16	5.16	5.16	5.16	5.16	5.06	5.26
Aroclor-1242-2	(2)	5.18	5.18	5.18	5.18	5.18	5.18	5.08	5.28
Aroclor-1242-3	(3)	5.36	5.36	5.36	5.36	5.36	5.36	5.26	5.46
Aroclor-1242-4	(4)	5.44	5.44	5.44	5.44	5.44	5.44	5.34	5.54
Aroclor-1242-5	(5)	5.97	5.97	5.97	5.97	5.97	5.97	5.87	6.07
Decachlorobiphenyl		9.21	9.21	9.21	9.21	9.21	9.21	9.11	9.31
Tetrachloro-m-xylene		4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Aroclor-1248-1	(1)	5.16	5.16	5.16	5.16	5.16	5.16	5.06	5.26
Aroclor-1248-2	(2)	5.40	5.40	5.40	5.40	5.40	5.40	5.30	5.50
Aroclor-1248-3	(3)	5.44	5.44	5.44	5.44	5.44	5.44	5.34	5.54
Aroclor-1248-4	(4)	5.62	5.62	5.62	5.62	5.62	5.62	5.52	5.72
Aroclor-1248-5	(5)	6.02	6.01	6.01	6.01	6.01	6.01	5.91	6.11
Decachlorobiphenyl		9.21	9.21	9.21	9.21	9.21	9.21	9.11	9.31
Tetrachloro-m-xylene		4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Aroclor-1254-1	(1)	5.97	5.97	5.97	5.97	5.97	5.97	5.87	6.07
Aroclor-1254-2	(2)	6.12	6.12	6.12	6.12	6.12	6.12	6.02	6.22
Aroclor-1254-3	(3)	6.53	6.53	6.53	6.53	6.53	6.53	6.43	6.63
Aroclor-1254-4	(4)	6.76	6.76	6.76	6.76	6.76	6.76	6.66	6.86
Aroclor-1254-5	(5)	7.18	7.18	7.18	7.18	7.18	7.18	7.08	7.28
Decachlorobiphenyl		9.21	9.21	9.21	9.21	9.21	9.21	9.11	9.31
Tetrachloro-m-xylene		4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15
Aroclor-1268-1	(1)	8.00	8.00	8.00	8.00	8.00	8.00	7.90	8.10
Aroclor-1268-2	(2)	8.07	8.07	8.07	8.07	8.07	8.07	7.97	8.17
Aroclor-1268-3	(3)	8.29	8.29	8.29	8.28	8.29	8.29	8.19	8.39
Aroclor-1268-4	(4)	8.59	8.59	8.59	8.59	8.59	8.59	8.49	8.69
Aroclor-1268-5	(5)	8.92	8.92	8.92	8.92	8.92	8.92	8.82	9.02

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RETENTION TIMES OF INITIAL CALIBRATION

Decachlorobiphenyl	9.21	9.21	9.21	9.21	9.21	9.21	9.11	9.31
Tetrachloro-m-xylene	4.05	4.05	4.05	4.05	4.05	4.05	3.95	4.15

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Calibration Date(s):** 11/08/2024 11/08/2024

Calibration Times: 02:45 10:39

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

LAB FILE ID: **CF 1000 =** PP068361.D **CF 750 =** PP068362.D

CF 500 = PP068363.D **CF 250 =** PP068364.D **CF 050 =** PP068365.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	32722878	32987127	36694544	38565352	38710580	35936096	8
Aroclor-1016-2	(2)	49685960	49794715	54179380	56028812	55062580	52950289	6
Aroclor-1016-3	(3)	31039806	31308951	31477564	35261268	36454940	33108506	8
Aroclor-1016-4	(4)	25063539	25553636	26008648	27599052	27185460	26282067	4
Aroclor-1016-5	(5)	26884732	25863024	29532330	29666960	29092940	28207997	6
Aroclor-1260-1	(1)	49214333	49857676	55068012	59485260	56895620	54104180	8
Aroclor-1260-2	(2)	58512720	58794644	61905312	70175200	68666580	63610891	9
Aroclor-1260-3	(3)	49867434	49696453	52919146	61783152	54693800	53791997	9
Aroclor-1260-4	(4)	58030307	58392116	61219352	66884816	66613400	62227998	7
Aroclor-1260-5	(5)	110582405	105927285	110379288	122419072	116614180	113184446	6
Decachlorobiphenyl		1148744080	1179137973	1231906520	1372184000	1325426000	1251479715	8
Tetrachloro-m-xylene		976730760	989539880	977459580	1014058520	895270000	970611748	5
Aroclor-1242-1	(1)	27983462	28943796	29856910	31981108	30602220	29873499	5
Aroclor-1242-2	(2)	42123278	43550552	43993198	46167728	44675600	44102071	3
Aroclor-1242-3	(3)	26373595	27535909	27652176	30639224	27091300	27858441	6
Aroclor-1242-4	(4)	21517643	22331261	22041924	22696804	20812240	21879974	3
Aroclor-1242-5	(5)	23574356	24961212	24214552	25605828	23046100	24280410	4
Decachlorobiphenyl		1136957280	1191065427	1253556200	1358666560	1321692600	1252387613	7
Tetrachloro-m-xylene		992458220	982684227	997132340	1047919280	945647800	993168373	4
Aroclor-1248-1	(1)	21167087	22295227	23730874	24762524	20866540	22564450	7
Aroclor-1248-2	(2)	31519452	32630243	34719948	35861524	33321940	33610621	5
Aroclor-1248-3	(3)	34960996	35667725	37475430	40578268	33895940	36515672	7
Aroclor-1248-4	(4)	40590754	42179399	43079186	47529360	40549640	42785668	7
Aroclor-1248-5	(5)	41079234	41993397	42275646	47274032	35073820	41539226	10
Decachlorobiphenyl		1161914410	1206078453	1287629180	1388690560	1317466800	1272355881	7
Tetrachloro-m-xylene		965301010	976063867	1045296820	1022231200	905772600	982933099	6
Aroclor-1254-1	(1)	45656926	46370784	48591708	55398616	63414000	51886407	14
Aroclor-1254-2	(2)	61419018	62089981	65367616	73235084	79075760	68237492	11
Aroclor-1254-3	(3)	65006662	66406433	68483584	76667348	80726040	71458013	10
Aroclor-1254-4	(4)	47495422	48750441	50445040	59112016	63268560	53814296	13
Aroclor-1254-5	(5)	57629379	58072741	61204598	69375440	67051440	62666720	8
Decachlorobiphenyl		1183925920	1211314307	1284210900	1390837600	1376990800	1289455905	7
Tetrachloro-m-xylene		989066910	975183547	996076320	1021088560	988613200	994005707	2
Aroclor-1268-1	(1)	148554696	149057943	156954174	165835368	151067220	154293880	5

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	135127060	135811816	143719574	151054592	134221840	139986976	5
Aroclor-1268-3	(3)	121067798	121993447	126378426	137822256	120978560	125648097	6
Aroclor-1268-4	(4)	55813556	54500479	57743018	60592344	38533680	53436615	16
Aroclor-1268-5	(5)	385860144	385976919	400737274	424727304	387529100	396966148	4
Decachlorobiphenyl		1949212650	1956251560	2086617000	2251184600	2062984000	2061249962	6
Tetrachloro-m-xylene		999802000	981646360	1047559160	988642360	831404200	969810816	8

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Calibration Date(s):** 11/08/2024 11/08/2024

Calibration Times: 02:45 10:39

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

LAB FILE ID: **CF 1000 =** PP068361.D **CF 750 =** PP068362.D

CF 500 = PP068363.D **CF 250 =** PP068364.D **CF 050 =** PP068365.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	28675269	31688729	32908702	36316968	35645980	33047130	9
Aroclor-1016-2	(2)	45372737	44532471	46481004	50131748	47195120	46742616	5
Aroclor-1016-3	(3)	25581263	25572389	25828308	29036828	29182360	27040230	7
Aroclor-1016-4	(4)	22022727	22558800	23000164	24742976	25650260	23594985	7
Aroclor-1016-5	(5)	28396741	28558155	29494206	33716108	28045580	29642158	8
Aroclor-1260-1	(1)	50792238	51496668	53738098	60629720	61588060	55648957	9
Aroclor-1260-2	(2)	59992941	60241951	64329398	71848292	74766160	66235748	10
Aroclor-1260-3	(3)	57127224	57366085	59805332	69966764	65191800	61891441	9
Aroclor-1260-4	(4)	50380547	50692913	52887170	57961512	51762800	52736988	6
Aroclor-1260-5	(5)	115281087	113974237	117997240	127736412	120391040	119076003	5
Decachlorobiphenyl		1067011790	1067726547	1123064240	1231914520	1166184600	1131180339	6
Tetrachloro-m-xylene		972289500	961505133	979740920	1035015200	892893600	968288871	5
Aroclor-1242-1	(1)	26036404	26596448	27385734	29619468	29310780	27789767	6
Aroclor-1242-2	(2)	36827504	37452539	38777442	41146472	38921400	38625071	4
Aroclor-1242-3	(3)	20664122	20558137	21869512	21695856	21612620	21280049	3
Aroclor-1242-4	(4)	21373603	21814177	23240642	23847296	23692700	22793684	5
Aroclor-1242-5	(5)	25609316	26872617	27207498	29810676	27756660	27451353	6
Decachlorobiphenyl		1071389140	1064856587	1152041260	1195523280	1288478000	1154457653	8
Tetrachloro-m-xylene		966238420	972029747	979866540	1033639640	930236800	976402229	4
Aroclor-1248-1	(1)	20444534	20222528	22256466	23287920	23025760	21847442	7
Aroclor-1248-2	(2)	29533815	29661357	32274092	34842920	33533080	31969053	7
Aroclor-1248-3	(3)	30992675	31236121	33896722	36614136	34801320	33508195	7
Aroclor-1248-4	(4)	36032257	36205659	39041408	42885656	39979000	38828796	7
Aroclor-1248-5	(5)	34550039	34918980	36548116	40687028	38637220	37068277	7
Decachlorobiphenyl		1075259530	1103159067	1175200200	1246394680	1231284200	1166259535	7
Tetrachloro-m-xylene		950224170	961311800	990959620	1038390440	915281600	971233526	5
Aroclor-1254-1	(1)	54665587	57402907	60611942	70904972	59624080	60641898	10
Aroclor-1254-2	(2)	47820782	49399019	52999540	61073956	52383280	52735315	10
Aroclor-1254-3	(3)	78076384	79594720	83715772	92115228	82804080	83261237	7
Aroclor-1254-4	(4)	45870471	47148891	49237464	53498856	47382280	48627592	6
Aroclor-1254-5	(5)	70292397	70911040	73701438	76415732	81847640	74633649	6
Decachlorobiphenyl		1101361650	1125516760	1206565780	1266510680	1278915800	1195774134	7
Tetrachloro-m-xylene		981660810	970989867	1008018320	1038763400	859285200	971743519	7
Aroclor-1268-1	(1)	151267885	153313264	156262812	163758576	154047820	155730071	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Aroclor-1268-2	(2)	137742491	139526981	142805908	148619888	139099220	141558898	3
Aroclor-1268-3	(3)	120301473	122381172	125911066	131464304	122515640	124514731	4
Aroclor-1268-4	(4)	53869021	55184383	57264704	57620508	49083040	54604331	6
Aroclor-1268-5	(5)	373667244	376833208	381941254	387550036	362884280	376575204	2
Decachlorobiphenyl		1822479100	1863575213	1915658760	2051852880	2001053000	1930923791	5
Tetrachloro-m-xylene		973469740	966812560	1002294360	1022455760	875332800	968073044	6

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Date(s) Analyzed:** 11/08/2024 11/08/2024

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.96	4.86	5.06	13562200
		2	5.05	4.95	5.15	10085600
		3	5.13	5.03	5.23	30259800
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	5.12	5.02	5.22	23319600
		2	5.66	5.56	5.76	14954700
		3	5.94	5.84	6.04	25054000
		4	6.11	6.01	6.21	12378200
		5	6.19	6.09	6.29	9944800
Aroclor-1262	500	1	8.38	8.28	8.48	74132800
		2	8.71	8.61	8.81	128999000
		3	9.05	8.95	9.15	95681000
		4	9.15	9.05	9.25	76386800
		5	9.85	9.75	9.95	53482800

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Instrument ID: ECD_P **Date(s) Analyzed:** 11/08/2024 11/08/2024

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

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.27	4.17	4.37	12610400
		2	4.35	4.25	4.45	9772940
		3	4.43	4.33	4.53	30490800
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.43	4.33	4.53	23601600
		2	5.18	5.08	5.28	21785200
		3	5.36	5.26	5.46	11210600
		4	5.44	5.34	5.54	10956500
		5	5.62	5.52	5.72	12320000
Aroclor-1262	500	1	7.21	7.11	7.31	77596600
		2	7.48	7.38	7.58	70694600
		3	8.00	7.90	8.10	58847400
		4	8.06	7.96	8.16	103602000
		5	8.59	8.49	8.69	50691400

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/15/2024 **Initial Calibration Date(s):** 11/08/2024 11/08/2024

Continuing Calib Time: 20:24 **Initial Calibration Time(s):** 02:45 10:39

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)	5.92	5.92	5.82	6.02	0.00
Aroclor-1016-2	(2)	5.94	5.94	5.84	6.04	0.00
Aroclor-1016-3	(3)	6.01	6.01	5.91	6.11	0.00
Aroclor-1016-4	(4)	6.11	6.11	6.01	6.21	0.00
Aroclor-1016-5	(5)	6.40	6.40	6.30	6.50	0.00
Aroclor-1260-1	(1)	7.52	7.52	7.42	7.62	0.00
Aroclor-1260-2	(2)	7.78	7.78	7.68	7.88	0.00
Aroclor-1260-3	(3)	8.14	8.14	8.04	8.24	0.00
Aroclor-1260-4	(4)	8.39	8.38	8.28	8.48	-0.01
Aroclor-1260-5	(5)	8.71	8.71	8.61	8.81	0.00
Tetrachloro-m-xylene		4.76	4.76	4.66	4.86	0.00
Decachlorobiphenyl		10.67	10.67	10.57	10.77	0.00

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

CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/15/2024 **Initial Calibration Date(s):** 11/08/2024 11/08/2024

Continuing Calib Time: 20:24 **Initial Calibration Time(s):** 02:45 10:39

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.16	5.16	5.06	5.26	0.00
Aroclor-1016-2	(2)	5.18	5.18	5.08	5.28	0.00
Aroclor-1016-3	(3)	5.36	5.36	5.26	5.46	0.00
Aroclor-1016-4	(4)	5.40	5.40	5.30	5.50	0.00
Aroclor-1016-5	(5)	5.62	5.62	5.52	5.72	0.01
Aroclor-1260-1	(1)	6.66	6.66	6.56	6.76	0.00
Aroclor-1260-2	(2)	6.84	6.85	6.75	6.95	0.01
Aroclor-1260-3	(3)	7.00	7.01	6.91	7.11	0.01
Aroclor-1260-4	(4)	7.48	7.48	7.38	7.58	0.00
Aroclor-1260-5	(5)	7.72	7.72	7.62	7.82	0.00
Tetrachloro-m-xylene		4.05	4.05	3.95	4.15	0.00
Decachlorobiphenyl		9.21	9.21	9.11	9.31	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 11/08/2024 11/08/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/15/2024

Lab Sample No.: AR1660CCC500 **Data File :** PP068510.D **Time Analyzed:** 20:24

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.922	5.821	6.021	472.500	500.000	-5.5
Aroclor-1016-2	5.944	5.844	6.044	472.860	500.000	-5.4
Aroclor-1016-3	6.007	5.908	6.108	479.160	500.000	-4.2
Aroclor-1016-4	6.106	6.005	6.205	489.700	500.000	-2.1
Aroclor-1016-5	6.400	6.299	6.499	458.100	500.000	-8.4
Aroclor-1260-1	7.523	7.423	7.623	430.710	500.000	-13.9
Aroclor-1260-2	7.777	7.676	7.876	424.670	500.000	-15.1
Aroclor-1260-3	8.138	8.038	8.238	418.710	500.000	-16.3
Aroclor-1260-4	8.386	8.276	8.476	511.700	500.000	2.3
Aroclor-1260-5	8.714	8.613	8.813	416.630	500.000	-16.7
Decachlorobiphenyl	10.672	10.572	10.772	43.290	50.000	-13.4
Tetrachloro-m-xylene	4.758	4.657	4.857	49.020	50.000	-2.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 11/08/2024 11/08/2024

Client Sample No.: CCAL01 **Date Analyzed:** 11/15/2024

Lab Sample No.: AR1660CCC500 **Data File :** PP068510.D **Time Analyzed:** 20:24

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.156	5.058	5.258	493.060	500.000	-1.4
Aroclor-1016-2	5.176	5.079	5.279	483.510	500.000	-3.3
Aroclor-1016-3	5.356	5.259	5.459	468.000	500.000	-6.4
Aroclor-1016-4	5.396	5.298	5.498	477.230	500.000	-4.6
Aroclor-1016-5	5.615	5.517	5.717	486.010	500.000	-2.8
Aroclor-1260-1	6.658	6.560	6.760	461.540	500.000	-7.7
Aroclor-1260-2	6.844	6.747	6.947	449.250	500.000	-10.2
Aroclor-1260-3	7.002	6.905	7.105	455.620	500.000	-8.9
Aroclor-1260-4	7.476	7.378	7.578	461.480	500.000	-7.7
Aroclor-1260-5	7.715	7.617	7.817	440.080	500.000	-12.0
Decachlorobiphenyl	9.207	9.110	9.310	43.820	50.000	-12.4
Tetrachloro-m-xylene	4.050	3.951	4.151	50.120	50.000	0.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/16/2024 **Initial Calibration Date(s):** 11/08/2024 11/08/2024

Continuing Calib Time: 00:45 **Initial Calibration Time(s):** 02:45 10:39

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)	5.92	5.92	5.82	6.02	0.00
Aroclor-1016-2	(2)	5.95	5.94	5.84	6.04	-0.01
Aroclor-1016-3	(3)	6.01	6.01	5.91	6.11	0.00
Aroclor-1016-4	(4)	6.11	6.11	6.01	6.21	0.00
Aroclor-1016-5	(5)	6.40	6.40	6.30	6.50	0.00
Aroclor-1260-1	(1)	7.53	7.52	7.42	7.62	-0.01
Aroclor-1260-2	(2)	7.78	7.78	7.68	7.88	0.00
Aroclor-1260-3	(3)	8.14	8.14	8.04	8.24	0.00
Aroclor-1260-4	(4)	8.38	8.38	8.28	8.48	0.00
Aroclor-1260-5	(5)	8.72	8.71	8.61	8.81	-0.01
Tetrachloro-m-xylene		4.76	4.76	4.66	4.86	0.00
Decachlorobiphenyl		10.68	10.67	10.57	10.77	-0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

Continuing Calib Date: 11/16/2024 **Initial Calibration Date(s):** 11/08/2024 11/08/2024

Continuing Calib Time: 00:45 **Initial Calibration Time(s):** 02:45 10:39

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

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.16	5.16	5.06	5.26	0.00
Aroclor-1016-2	(2)	5.18	5.18	5.08	5.28	0.00
Aroclor-1016-3	(3)	5.36	5.36	5.26	5.46	0.00
Aroclor-1016-4	(4)	5.40	5.40	5.30	5.50	0.00
Aroclor-1016-5	(5)	5.62	5.62	5.52	5.72	0.00
Aroclor-1260-1	(1)	6.66	6.66	6.56	6.76	0.00
Aroclor-1260-2	(2)	6.85	6.85	6.75	6.95	0.00
Aroclor-1260-3	(3)	7.00	7.01	6.91	7.11	0.01
Aroclor-1260-4	(4)	7.48	7.48	7.38	7.58	0.00
Aroclor-1260-5	(5)	7.72	7.72	7.62	7.82	0.00
Tetrachloro-m-xylene		4.05	4.05	3.95	4.15	0.00
Decachlorobiphenyl		9.21	9.21	9.11	9.31	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 11/08/2024 11/08/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/16/2024

Lab Sample No.: AR1660CCC500 **Data File :** PP068524.D **Time Analyzed:** 00:45

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.924	5.821	6.021	467.470	500.000	-6.5
Aroclor-1016-2	5.946	5.844	6.044	474.360	500.000	-5.1
Aroclor-1016-3	6.010	5.908	6.108	481.730	500.000	-3.7
Aroclor-1016-4	6.108	6.005	6.205	487.190	500.000	-2.6
Aroclor-1016-5	6.402	6.299	6.499	471.960	500.000	-5.6
Aroclor-1260-1	7.526	7.423	7.623	449.420	500.000	-10.1
Aroclor-1260-2	7.779	7.676	7.876	443.760	500.000	-11.2
Aroclor-1260-3	8.141	8.038	8.238	440.350	500.000	-11.9
Aroclor-1260-4	8.379	8.276	8.476	430.390	500.000	-13.9
Aroclor-1260-5	8.717	8.613	8.813	426.140	500.000	-14.8
Decachlorobiphenyl	10.676	10.572	10.772	44.620	50.000	-10.8
Tetrachloro-m-xylene	4.760	4.657	4.857	49.160	50.000	-1.7

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CALIBRATION VERIFICATION SUMMARY

Contract: AECO02

Lab Code: CHEM **Case No.:** P4861 **SAS No.:** P4861 **SDG NO.:** P4861

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 11/08/2024 11/08/2024

Client Sample No.: CCAL02 **Date Analyzed:** 11/16/2024

Lab Sample No.: AR1660CCC500 **Data File :** PP068524.D **Time Analyzed:** 00:45

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.157	5.058	5.258	503.140	500.000	0.6
Aroclor-1016-2	5.177	5.079	5.279	488.860	500.000	-2.2
Aroclor-1016-3	5.357	5.259	5.459	503.750	500.000	0.8
Aroclor-1016-4	5.397	5.298	5.498	504.320	500.000	0.9
Aroclor-1016-5	5.616	5.517	5.717	479.000	500.000	-4.2
Aroclor-1260-1	6.659	6.560	6.760	463.200	500.000	-7.4
Aroclor-1260-2	6.846	6.747	6.947	450.770	500.000	-9.8
Aroclor-1260-3	7.003	6.905	7.105	458.030	500.000	-8.4
Aroclor-1260-4	7.477	7.378	7.578	463.390	500.000	-7.3
Aroclor-1260-5	7.717	7.617	7.817	444.670	500.000	-11.1
Decachlorobiphenyl	9.209	9.110	9.310	45.170	50.000	-9.7
Tetrachloro-m-xylene	4.051	3.951	4.151	49.890	50.000	-0.2

Alliance TECHNICAL GROUP
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Analytical Sequence

Client: AECOM **SDG No.:** P4861

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

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 11/08/2024 11/08/2024

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	11/08/2024	02:29	PP068360.D	10.67	4.76
AR1660ICC1000	AR1660ICC1000	11/08/2024	02:45	PP068361.D	10.67	4.76
AR1660ICC750	AR1660ICC750	11/08/2024	03:02	PP068362.D	10.68	4.76
AR1660ICC500	AR1660ICC500	11/08/2024	03:18	PP068363.D	10.67	4.76
AR1660ICC250	AR1660ICC250	11/08/2024	03:34	PP068364.D	10.68	4.76
AR1660ICC050	AR1660ICC050	11/08/2024	03:51	PP068365.D	10.67	4.76
AR1221ICC500	AR1221ICC500	11/08/2024	04:07	PP068366.D	10.68	4.76
AR1232ICC500	AR1232ICC500	11/08/2024	04:23	PP068367.D	10.67	4.76
AR1242ICC1000	AR1242ICC1000	11/08/2024	04:40	PP068368.D	10.67	4.76
AR1242ICC750	AR1242ICC750	11/08/2024	04:56	PP068369.D	10.67	4.76
AR1242ICC500	AR1242ICC500	11/08/2024	05:12	PP068370.D	10.67	4.76
AR1242ICC250	AR1242ICC250	11/08/2024	05:29	PP068371.D	10.67	4.76
AR1242ICC050	AR1242ICC050	11/08/2024	05:45	PP068372.D	10.68	4.76
AR1248ICC1000	AR1248ICC1000	11/08/2024	06:01	PP068373.D	10.67	4.76
AR1248ICC750	AR1248ICC750	11/08/2024	06:18	PP068374.D	10.68	4.76
AR1248ICC500	AR1248ICC500	11/08/2024	06:34	PP068375.D	10.67	4.76
AR1248ICC250	AR1248ICC250	11/08/2024	06:50	PP068376.D	10.67	4.76
AR1248ICC050	AR1248ICC050	11/08/2024	07:07	PP068377.D	10.67	4.76
AR1254ICC1000	AR1254ICC1000	11/08/2024	07:23	PP068378.D	10.67	4.76
AR1254ICC750	AR1254ICC750	11/08/2024	07:39	PP068379.D	10.67	4.76
AR1254ICC500	AR1254ICC500	11/08/2024	07:56	PP068380.D	10.67	4.76
AR1254ICC250	AR1254ICC250	11/08/2024	08:12	PP068381.D	10.67	4.76
AR1254ICC050	AR1254ICC050	11/08/2024	08:28	PP068382.D	10.67	4.76
AR1262ICC500	AR1262ICC500	11/08/2024	08:45	PP068383.D	10.67	4.76
AR1268ICC1000	AR1268ICC1000	11/08/2024	09:01	PP068384.D	10.67	4.76
AR1268ICC750	AR1268ICC750	11/08/2024	09:17	PP068385.D	10.67	4.76
AR1268ICC500	AR1268ICC500	11/08/2024	09:34	PP068386.D	10.67	4.76
AR1268ICC250	AR1268ICC250	11/08/2024	09:50	PP068387.D	10.67	4.76
AR1268ICC050	AR1268ICC050	11/08/2024	10:39	PP068388.D	10.67	4.76
AR1660CCC500	AR1660CCC500	11/15/2024	20:24	PP068510.D	10.67	4.76
I.BLK	I.BLK	11/15/2024	21:29	PP068514.D	10.68	4.76
PB164990BL	PB164990BL	11/15/2024	21:46	PP068515.D	10.68	4.76
PB164990BS	PB164990BS	11/15/2024	22:02	PP068516.D	10.68	4.76
PB164990BSD	PB164990BSD	11/15/2024	22:18	PP068517.D	10.68	4.76
WC-11-A-202411	P4861-01	11/15/2024	22:51	PP068519.D	10.68	4.76
AR1660CCC500	AR1660CCC500	11/16/2024	00:45	PP068524.D	10.68	4.76
I.BLK	I.BLK	11/16/2024	01:51	PP068528.D	10.68	4.76

Alliance TECHNICAL GROUP
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Analytical Sequence

Client: AECOM **SDG No.:** P4861

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

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Inst. Calib. Date(s):** 11/08/2024 11/08/2024

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	11/08/2024	02:29	PP068360.D	9.21	4.05
AR1660ICC1000	AR1660ICC1000	11/08/2024	02:45	PP068361.D	9.21	4.05
AR1660ICC750	AR1660ICC750	11/08/2024	03:02	PP068362.D	9.21	4.05
AR1660ICC500	AR1660ICC500	11/08/2024	03:18	PP068363.D	9.21	4.05
AR1660ICC250	AR1660ICC250	11/08/2024	03:34	PP068364.D	9.21	4.05
AR1660ICC050	AR1660ICC050	11/08/2024	03:51	PP068365.D	9.21	4.05
AR1221ICC500	AR1221ICC500	11/08/2024	04:07	PP068366.D	9.21	4.05
AR1232ICC500	AR1232ICC500	11/08/2024	04:23	PP068367.D	9.21	4.05
AR1242ICC1000	AR1242ICC1000	11/08/2024	04:40	PP068368.D	9.21	4.05
AR1242ICC750	AR1242ICC750	11/08/2024	04:56	PP068369.D	9.21	4.05
AR1242ICC500	AR1242ICC500	11/08/2024	05:12	PP068370.D	9.21	4.05
AR1242ICC250	AR1242ICC250	11/08/2024	05:29	PP068371.D	9.21	4.05
AR1242ICC050	AR1242ICC050	11/08/2024	05:45	PP068372.D	9.21	4.05
AR1248ICC1000	AR1248ICC1000	11/08/2024	06:01	PP068373.D	9.21	4.05
AR1248ICC750	AR1248ICC750	11/08/2024	06:18	PP068374.D	9.21	4.05
AR1248ICC500	AR1248ICC500	11/08/2024	06:34	PP068375.D	9.21	4.05
AR1248ICC250	AR1248ICC250	11/08/2024	06:50	PP068376.D	9.21	4.05
AR1248ICC050	AR1248ICC050	11/08/2024	07:07	PP068377.D	9.21	4.05
AR1254ICC1000	AR1254ICC1000	11/08/2024	07:23	PP068378.D	9.21	4.05
AR1254ICC750	AR1254ICC750	11/08/2024	07:39	PP068379.D	9.21	4.05
AR1254ICC500	AR1254ICC500	11/08/2024	07:56	PP068380.D	9.21	4.05
AR1254ICC250	AR1254ICC250	11/08/2024	08:12	PP068381.D	9.21	4.05
AR1254ICC050	AR1254ICC050	11/08/2024	08:28	PP068382.D	9.21	4.05
AR1262ICC500	AR1262ICC500	11/08/2024	08:45	PP068383.D	9.21	4.05
AR1268ICC1000	AR1268ICC1000	11/08/2024	09:01	PP068384.D	9.21	4.05
AR1268ICC750	AR1268ICC750	11/08/2024	09:17	PP068385.D	9.21	4.05
AR1268ICC500	AR1268ICC500	11/08/2024	09:34	PP068386.D	9.21	4.05
AR1268ICC250	AR1268ICC250	11/08/2024	09:50	PP068387.D	9.21	4.05
AR1268ICC050	AR1268ICC050	11/08/2024	10:39	PP068388.D	9.21	4.05
AR1660CCC500	AR1660CCC500	11/15/2024	20:24	PP068510.D	9.21	4.05
I.BLK	I.BLK	11/15/2024	21:29	PP068514.D	9.21	4.05
PB164990BL	PB164990BL	11/15/2024	21:46	PP068515.D	9.21	4.05
PB164990BS	PB164990BS	11/15/2024	22:02	PP068516.D	9.21	4.05
PB164990BSD	PB164990BSD	11/15/2024	22:18	PP068517.D	9.21	4.05
WC-11-A-202411	P4861-01	11/15/2024	22:51	PP068519.D	9.21	4.05
AR1660CCC500	AR1660CCC500	11/16/2024	00:45	PP068524.D	9.21	4.05
I.BLK	I.BLK	11/16/2024	01:51	PP068528.D	9.21	4.05

QC SAMPLE DATA

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

Client:	AECOM	Date Collected:	
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	
Client Sample ID:	PB164990BL	SDG No.:	P4861
Lab Sample ID:	PB164990BL	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
PP068515.D	1	11/15/24 08:21	11/15/24 21:46	PB164990

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	20.1		10 - 157	100%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.1		10 - 173	100%	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:	11/08/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/08/24
Client Sample ID:	PIBLK-PP068360.D	SDG No.:	P4861
Lab Sample ID:	I.BLK-PP068360.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
PP068360.D	1		11/08/24	PP110724

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	23.4		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:	11/15/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/15/24
Client Sample ID:	PIBLK-PP068514.D	SDG No.:	P4861
Lab Sample ID:	I.BLK-PP068514.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
PP068514.D	1		11/15/24	PP111524

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	20.5		60 - 140	103%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.3		60 - 140	101%	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:	11/16/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/16/24
Client Sample ID:	PIBLK-PP068528.D	SDG No.:	P4861
Lab Sample ID:	I.BLK-PP068528.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
PP068528.D	1		11/16/24	PP111524

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	20.3		60 - 140	102%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.5		60 - 140	108%	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:	PB164990BS	SDG No.:	P4861
Lab Sample ID:	PB164990BS	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
PP068516.D	1	11/15/24 08:21	11/15/24 22:02	PB164990

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	4.40		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	4.20		0.15	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.7		10 - 157	104%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.4		10 - 173	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:	
Client Sample ID:	PB164990BSD	SDG No.:	P4861
Lab Sample ID:	PB164990BSD	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
PP068517.D	1	11/15/24 08:21	11/15/24 22:18	PB164990

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	4.40		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	4.10		0.15	0.50	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	20.2		10 - 157	101%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.1		10 - 173	101%	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:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**TCLP**			**11/13/24**			**11/14/24**
			TCLP ICP Metals	6010D		11/18/24	11/18/24	
			TCLP Mercury	7470A		11/19/24	11/19/24	

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Hit Summary Sheet
SW-846

SDG No.: P4861 **Order ID:** P4861

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								
P4861-01	WC-11-A-202411	TCLP	Chromium	23.7	J	6.60	50.0	ug/L

SAMPLE DATA

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Report of Analysis

Client:	AECOM	Date Collected:	11/13/24
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	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	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7440-39-3	Barium	62.8	U	1	62.8	500	ug/L	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7440-43-9	Cadmium	0.94	U	1	0.94	30.0	ug/L	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7440-47-3	Chromium	23.7	J	1	6.60	50.0	ug/L	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7439-92-1	Lead	35.1	U	1	35.1	60.0	ug/L	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7439-97-6	Mercury	0.81	U	1	0.81	2.00	ug/L	11/19/24 07:53	11/19/24 12:40	SW7470A	
7782-49-2	Selenium	58.8	U	1	58.8	100	ug/L	11/18/24 11:00	11/18/24 17:27	SW6010	SW3050
7440-22-4	Silver	5.80	U	1	5.80	50.0	ug/L	11/18/24 11:00	11/18/24 17:27	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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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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
ICV90	Mercury	3.62	4.0	90	90 - 110	CV	11/19/2024	11:19	LB133509

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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
CCV05	Mercury	5.35	5.0	107	90 - 110	CV	11/19/2024	11:26	LB133509
CCV06	Mercury	5.23	5.0	104	90 - 110	CV	11/19/2024	11:53	LB133509
CCV07	Mercury	5.03	5.0	101	90 - 110	CV	11/19/2024	12:20	LB133509
CCV08	Mercury	5.06	5.0	101	90 - 110	CV	11/19/2024	13:10	LB133509
CCV09	Mercury	5.33	5.0	107	90 - 110	CV	11/19/2024	13:33	LB133509

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	1040	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Barium	533	520	102	90 - 110	P	11/18/2024	12:57	LB133502
	Cadmium	523	510	103	90 - 110	P	11/18/2024	12:57	LB133502
	Chromium	554	520	107	90 - 110	P	11/18/2024	12:57	LB133502
	Lead	1030	1000	104	90 - 110	P	11/18/2024	12:57	LB133502
	Selenium	1070	1000	107	90 - 110	P	11/18/2024	12:57	LB133502
	Silver	264	250	106	90 - 110	P	11/18/2024	12:57	LB133502

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	18.9	20.0	94	80 - 120	P	11/18/2024	13:11	LB133502
	Barium	101	100	101	80 - 120	P	11/18/2024	13:11	LB133502
	Cadmium	6.99	6.0	116	80 - 120	P	11/18/2024	13:11	LB133502
	Chromium	10.5	10.0	105	80 - 120	P	11/18/2024	13:11	LB133502
	Lead	12.1	12.0	101	80 - 120	P	11/18/2024	13:11	LB133502
	Selenium	20.9	20.0	105	80 - 120	P	11/18/2024	13:11	LB133502
	Silver	10.8	10.0	108	80 - 120	P	11/18/2024	13:11	LB133502

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	4990	5000	100	90 - 110	P	11/18/2024	13:52	LB133502
	Barium	9590	10000	96	90 - 110	P	11/18/2024	13:52	LB133502
	Cadmium	2460	2500	98	90 - 110	P	11/18/2024	13:52	LB133502
	Chromium	1020	1000	102	90 - 110	P	11/18/2024	13:52	LB133502
	Lead	4930	5000	99	90 - 110	P	11/18/2024	13:52	LB133502
	Selenium	5110	5000	102	90 - 110	P	11/18/2024	13:52	LB133502
	Silver	1250	1250	100	90 - 110	P	11/18/2024	13:52	LB133502
CCV02	Arsenic	5030	5000	101	90 - 110	P	11/18/2024	14:31	LB133502
	Barium	9540	10000	95	90 - 110	P	11/18/2024	14:31	LB133502
	Cadmium	2490	2500	100	90 - 110	P	11/18/2024	14:31	LB133502
	Chromium	1030	1000	103	90 - 110	P	11/18/2024	14:31	LB133502
	Lead	4980	5000	100	90 - 110	P	11/18/2024	14:31	LB133502
	Selenium	5160	5000	103	90 - 110	P	11/18/2024	14:31	LB133502
	Silver	1260	1250	100	90 - 110	P	11/18/2024	14:31	LB133502
CCV03	Arsenic	5000	5000	100	90 - 110	P	11/18/2024	15:35	LB133502
	Barium	9430	10000	94	90 - 110	P	11/18/2024	15:35	LB133502
	Cadmium	2450	2500	98	90 - 110	P	11/18/2024	15:35	LB133502
	Chromium	1020	1000	102	90 - 110	P	11/18/2024	15:35	LB133502
	Lead	4910	5000	98	90 - 110	P	11/18/2024	15:35	LB133502
	Selenium	5130	5000	103	90 - 110	P	11/18/2024	15:35	LB133502
	Silver	1240	1250	100	90 - 110	P	11/18/2024	15:35	LB133502
CCV04	Arsenic	5020	5000	100	90 - 110	P	11/18/2024	16:25	LB133502
	Barium	9440	10000	94	90 - 110	P	11/18/2024	16:25	LB133502
	Cadmium	2460	2500	98	90 - 110	P	11/18/2024	16:25	LB133502
	Chromium	1030	1000	103	90 - 110	P	11/18/2024	16:25	LB133502
	Lead	4910	5000	98	90 - 110	P	11/18/2024	16:25	LB133502
	Selenium	5210	5000	104	90 - 110	P	11/18/2024	16:25	LB133502
	Silver	1260	1250	101	90 - 110	P	11/18/2024	16:25	LB133502
CCV05	Arsenic	5120	5000	102	90 - 110	P	11/18/2024	17:01	LB133502
	Barium	9720	10000	97	90 - 110	P	11/18/2024	17:01	LB133502
	Cadmium	2500	2500	100	90 - 110	P	11/18/2024	17:01	LB133502
	Chromium	1040	1000	104	90 - 110	P	11/18/2024	17:01	LB133502
	Lead	5000	5000	100	90 - 110	P	11/18/2024	17:01	LB133502
	Selenium	5040	5000	101	90 - 110	P	11/18/2024	17:01	LB133502

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	1280	1250	102	90 - 110	P	11/18/2024	17:01	LB133502
CCV06	Arsenic	5080	5000	102	90 - 110	P	11/18/2024	18:04	LB133502
	Barium	9550	10000	96	90 - 110	P	11/18/2024	18:04	LB133502
	Cadmium	2490	2500	100	90 - 110	P	11/18/2024	18:04	LB133502
	Chromium	1040	1000	104	90 - 110	P	11/18/2024	18:04	LB133502
	Lead	4980	5000	100	90 - 110	P	11/18/2024	18:04	LB133502
	Selenium	4980	5000	100	90 - 110	P	11/18/2024	18:04	LB133502
	Silver	1270	1250	102	90 - 110	P	11/18/2024	18:04	LB133502
CCV07	Arsenic	5290	5000	106	90 - 110	P	11/18/2024	18:54	LB133502
	Barium	9680	10000	97	90 - 110	P	11/18/2024	18:54	LB133502
	Cadmium	2570	2500	103	90 - 110	P	11/18/2024	18:54	LB133502
	Chromium	1070	1000	107	90 - 110	P	11/18/2024	18:54	LB133502
	Lead	5140	5000	103	90 - 110	P	11/18/2024	18:54	LB133502
	Selenium	5260	5000	105	90 - 110	P	11/18/2024	18:54	LB133502
	Silver	1300	1250	104	90 - 110	P	11/18/2024	18:54	LB133502

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	1020	1000	102	90 - 110	P	11/19/2024	11:25	LB133524
	Barium	542	520	104	90 - 110	P	11/19/2024	11:25	LB133524
	Cadmium	526	510	103	90 - 110	P	11/19/2024	11:25	LB133524
	Chromium	551	520	106	90 - 110	P	11/19/2024	11:25	LB133524
	Lead	1040	1000	104	90 - 110	P	11/19/2024	11:25	LB133524
	Selenium	1040	1000	104	90 - 110	P	11/19/2024	11:25	LB133524
	Silver	261	250	105	90 - 110	P	11/19/2024	11:25	LB133524

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	20.5	20.0	102	80 - 120	P	11/19/2024	11:34	LB133524
	Barium	104	100	104	80 - 120	P	11/19/2024	11:34	LB133524
	Cadmium	5.89	6.0	98	80 - 120	P	11/19/2024	11:34	LB133524
	Chromium	10.7	10.0	107	80 - 120	P	11/19/2024	11:34	LB133524
	Lead	12.4	12.0	103	80 - 120	P	11/19/2024	11:34	LB133524
	Selenium	20.6	20.0	103	80 - 120	P	11/19/2024	11:34	LB133524
	Silver	10.1	10.0	101	80 - 120	P	11/19/2024	11:34	LB133524

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	4970	5000	99	90 - 110	P	11/19/2024	12:43	LB133524
	Barium	10000	10000	100	90 - 110	P	11/19/2024	12:43	LB133524
	Cadmium	2490	2500	100	90 - 110	P	11/19/2024	12:43	LB133524
	Chromium	996	1000	100	90 - 110	P	11/19/2024	12:43	LB133524
	Lead	4990	5000	100	90 - 110	P	11/19/2024	12:43	LB133524
	Selenium	4950	5000	99	90 - 110	P	11/19/2024	12:43	LB133524
	Silver	1230	1250	98	90 - 110	P	11/19/2024	12:43	LB133524
CCV02	Arsenic	5320	5000	106	90 - 110	P	11/19/2024	13:34	LB133524
	Barium	10300	10000	103	90 - 110	P	11/19/2024	13:34	LB133524
	Cadmium	2610	2500	104	90 - 110	P	11/19/2024	13:34	LB133524
	Chromium	1070	1000	107	90 - 110	P	11/19/2024	13:34	LB133524
	Lead	5240	5000	105	90 - 110	P	11/19/2024	13:34	LB133524
	Selenium	5340	5000	107	90 - 110	P	11/19/2024	13:34	LB133524
	Silver	1320	1250	106	90 - 110	P	11/19/2024	13:34	LB133524
CCV03	Arsenic	5110	5000	102	90 - 110	P	11/19/2024	14:24	LB133524
	Barium	10300	10000	102	90 - 110	P	11/19/2024	14:24	LB133524
	Cadmium	2590	2500	104	90 - 110	P	11/19/2024	14:24	LB133524
	Chromium	1040	1000	104	90 - 110	P	11/19/2024	14:24	LB133524
	Lead	5200	5000	104	90 - 110	P	11/19/2024	14:24	LB133524
	Selenium	5080	5000	102	90 - 110	P	11/19/2024	14:24	LB133524
	Silver	1280	1250	102	90 - 110	P	11/19/2024	14:24	LB133524
CCV04	Arsenic	5260	5000	105	90 - 110	P	11/19/2024	15:31	LB133524
	Barium	10500	10000	105	90 - 110	P	11/19/2024	15:31	LB133524
	Cadmium	2610	2500	104	90 - 110	P	11/19/2024	15:31	LB133524
	Chromium	1050	1000	105	90 - 110	P	11/19/2024	15:31	LB133524
	Lead	5230	5000	105	90 - 110	P	11/19/2024	15:31	LB133524
	Selenium	5280	5000	106	90 - 110	P	11/19/2024	15:31	LB133524
	Silver	1290	1250	103	90 - 110	P	11/19/2024	15:31	LB133524
CCV05	Arsenic	5210	5000	104	90 - 110	P	11/19/2024	16:18	LB133524
	Barium	10300	10000	103	90 - 110	P	11/19/2024	16:18	LB133524
	Cadmium	2580	2500	103	90 - 110	P	11/19/2024	16:18	LB133524
	Chromium	1050	1000	105	90 - 110	P	11/19/2024	16:18	LB133524
	Lead	5170	5000	104	90 - 110	P	11/19/2024	16:18	LB133524
	Selenium	5240	5000	105	90 - 110	P	11/19/2024	16:18	LB133524

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	1290	1250	103	90 - 110	P	11/19/2024	16:18	LB133524
CCV06	Arsenic	5270	5000	105	90 - 110	P	11/19/2024	17:19	LB133524
	Barium	10400	10000	104	90 - 110	P	11/19/2024	17:19	LB133524
	Cadmium	2610	2500	104	90 - 110	P	11/19/2024	17:19	LB133524
	Chromium	1060	1000	106	90 - 110	P	11/19/2024	17:19	LB133524
	Lead	5240	5000	105	90 - 110	P	11/19/2024	17:19	LB133524
	Selenium	5310	5000	106	90 - 110	P	11/19/2024	17:19	LB133524
	Silver	1310	1250	105	90 - 110	P	11/19/2024	17:19	LB133524
CCV07	Arsenic	5070	5000	101	90 - 110	P	11/19/2024	18:01	LB133524
	Barium	10600	10000	106	90 - 110	P	11/19/2024	18:01	LB133524
	Cadmium	2490	2500	99	90 - 110	P	11/19/2024	18:01	LB133524
	Chromium	1020	1000	102	90 - 110	P	11/19/2024	18:01	LB133524
	Lead	5020	5000	100	90 - 110	P	11/19/2024	18:01	LB133524
	Selenium	5100	5000	102	90 - 110	P	11/19/2024	18:01	LB133524
	Silver	1270	1250	101	90 - 110	P	11/19/2024	18:01	LB133524

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Metals

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CRDL STANDARD FOR AA & ICP

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	19.8	20.0	99	40 - 160	P	11/18/2024	13:20	LB133502
	Barium	98.9	100	99	40 - 160	P	11/18/2024	13:20	LB133502
	Cadmium	7.02	6.0	117	40 - 160	P	11/18/2024	13:20	LB133502
	Chromium	10.5	10.0	105	40 - 160	P	11/18/2024	13:20	LB133502
	Lead	11.7	12.0	97	40 - 160	P	11/18/2024	13:20	LB133502
	Selenium	21.8	20.0	109	40 - 160	P	11/18/2024	13:20	LB133502
	Silver	11.0	10.0	110	40 - 160	P	11/18/2024	13:20	LB133502
CRA	Mercury	0.17	0.2	87	40 - 160	CV	11/19/2024	11:30	LB133509
CRI01	Arsenic	19.4	20.0	97	40 - 160	P	11/19/2024	11:43	LB133524
	Barium	105	100	105	40 - 160	P	11/19/2024	11:43	LB133524
	Cadmium	5.78	6.0	96	40 - 160	P	11/19/2024	11:43	LB133524
	Chromium	10.2	10.0	102	40 - 160	P	11/19/2024	11:43	LB133524
	Lead	12.1	12.0	101	40 - 160	P	11/19/2024	11:43	LB133524
	Selenium	18.1	20.0	90	40 - 160	P	11/19/2024	11:43	LB133524
	Silver	10.1	10.0	101	40 - 160	P	11/19/2024	11:43	LB133524

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB90	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	11:21	LB133509

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	11:28	LB133509
CCB06	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	11:55	LB133509
CCB07	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	12:23	LB133509
CCB08	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	13:12	LB133509
CCB09	Mercury	0.20	+/-0.20	U	0.20	CV	11/19/2024	13:35	LB133509

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/18/2024	13:15	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	13:15	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	13:15	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	13:15	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	13:15	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	13:15	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	13:15	LB133502

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/18/2024	14:02	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	14:02	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	14:02	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	14:02	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	14:02	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	14:02	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	14:02	LB133502
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	14:35	LB133502
	Barium	18.0	+/-100	J	100	P	11/18/2024	14:35	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	14:35	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	14:35	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	14:35	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	14:35	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	14:35	LB133502
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	15:39	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	15:39	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	15:39	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	15:39	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	15:39	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	15:39	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	15:39	LB133502
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	16:29	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	16:29	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	16:29	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	16:29	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	16:29	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	16:29	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	16:29	LB133502
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	17:06	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	17:06	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	17:06	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	17:06	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	17:06	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	17:06	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	17:06	LB133502
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	18:08	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	18:08	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	18:08	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	18:08	LB133502

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/18/2024	18:08	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	18:08	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	18:08	LB133502
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	11/18/2024	18:58	LB133502
	Barium	100	+/-100	U	100	P	11/18/2024	18:58	LB133502
	Cadmium	6.00	+/-6.00	U	6.00	P	11/18/2024	18:58	LB133502
	Chromium	10.0	+/-10.0	U	10.0	P	11/18/2024	18:58	LB133502
	Lead	12.0	+/-12.0	U	12.0	P	11/18/2024	18:58	LB133502
	Selenium	20.0	+/-20.0	U	20.0	P	11/18/2024	18:58	LB133502
	Silver	10.0	+/-10.0	U	10.0	P	11/18/2024	18:58	LB133502

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/19/2024	11:38	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	11:38	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	11:38	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	11:38	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	11:38	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	11:38	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	11:38	LB133524

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/19/2024	12:48	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	12:48	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	12:48	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	12:48	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	12:48	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	12:48	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	12:48	LB133524
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	13:38	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	13:38	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	13:38	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	13:38	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	13:38	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	13:38	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	13:38	LB133524
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	14:28	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	14:28	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	14:28	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	14:28	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	14:28	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	14:28	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	14:28	LB133524
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	15:36	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	15:36	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	15:36	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	15:36	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	15:36	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	15:36	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	15:36	LB133524
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	16:22	LB133524
	Barium	100	+/-100	U	100	P	11/19/2024	16:22	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	16:22	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	16:22	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	16:22	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	16:22	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	16:22	LB133524
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	17:24	LB133524
	Barium	22.0	+/-100	J	100	P	11/19/2024	17:24	LB133524
	Cadmium	6.00	+/-6.00	U	6.00	P	11/19/2024	17:24	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	17:24	LB133524

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	11/19/2024	17:24	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	17:24	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	17:24	LB133524
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	11/19/2024	18:05	LB133524
	Barium	25.8	+/-100	J	100	P	11/19/2024	18:05	LB133524
	Cadmium	0.62	+/-6.00	J	6.00	P	11/19/2024	18:05	LB133524
	Chromium	10.0	+/-10.0	U	10.0	P	11/19/2024	18:05	LB133524
	Lead	12.0	+/-12.0	U	12.0	P	11/19/2024	18:05	LB133524
	Selenium	20.0	+/-20.0	U	20.0	P	11/19/2024	18:05	LB133524
	Silver	10.0	+/-10.0	U	10.0	P	11/19/2024	18:05	LB133524

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Metals
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PREPARATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165019TB		**WATER**		**Batch Number:**	**PB165080**		**Prep Date:**	**11/19/2024**	
	Mercury	2.00	<2.00	U	2.00	CV	11/19/2024	13:21	LB133509

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165080BL		**WATER**		**Batch Number:**	**PB165080**		**Prep Date:**	**11/19/2024**	
	Mercury	0.20	<0.20	U	0.20	CV	11/19/2024	12:29	LB133509

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Metals
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PREPARATION BLANK SUMMARY

Client: AECOM **SDG No.:** P4861

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165019TB		**WATER**		**Batch Number:**	**PB165049**		**Prep Date:**	**11/18/2024**	
	Arsenic	100	<100	U	100	P	11/19/2024	15:00	LB133524
	Barium	500	<500	U	500	P	11/19/2024	15:00	LB133524
	Cadmium	30.0	<30.0	U	30.0	P	11/19/2024	15:00	LB133524
	Chromium	38.4	<50.0	J	50.0	P	11/19/2024	15:00	LB133524
	Lead	60.0	<60.0	U	60.0	P	11/19/2024	15:00	LB133524
	Selenium	100	<100	U	100	P	11/19/2024	15:00	LB133524
	Silver	50.0	<50.0	U	50.0	P	11/19/2024	15:00	LB133524

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB165049BL		**WATER**		**Batch Number:**	**PB165049**		**Prep Date:**	**11/18/2024**	
	Arsenic	100	<100	U	100	P	11/19/2024	15:44	LB133524
	Barium	500	<500	U	500	P	11/19/2024	15:44	LB133524
	Cadmium	30.0	<30.0	U	30.0	P	11/19/2024	15:44	LB133524
	Chromium	50.0	<50.0	U	50.0	P	11/19/2024	15:44	LB133524
	Lead	60.0	<60.0	U	60.0	P	11/19/2024	15:44	LB133524
	Selenium	100	<100	U	100	P	11/19/2024	15:44	LB133524
	Silver	50.0	<50.0	U	50.0	P	11/19/2024	15:44	LB133524

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Metals
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INTERFERENCE CHECK SAMPLE

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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	6.18			-20	20	11/18/2024	13:30	LB133502
	Barium	2.50	6.0	42	-94	106	11/18/2024	13:30	LB133502
	Cadmium	4.50	1.0	450	-5	7	11/18/2024	13:30	LB133502
	Chromium	56.3	52.0	108	42	62	11/18/2024	13:30	LB133502
	Lead	8.39			-12	12	11/18/2024	13:30	LB133502
	Selenium	-16.2			-20	20	11/18/2024	13:30	LB133502
	Silver	-0.11			-10	10	11/18/2024	13:30	LB133502
ICSAB01	Arsenic	116	104	112	88.4	120	11/18/2024	13:42	LB133502
	Barium	493	537	92	437	637	11/18/2024	13:42	LB133502
	Cadmium	1020	972	105	826	1120	11/18/2024	13:42	LB133502
	Chromium	579	542	107	460	624	11/18/2024	13:42	LB133502
	Lead	57.7	49.0	118	37	61	11/18/2024	13:42	LB133502
	Selenium	32.7	46.0	71	26	66	11/18/2024	13:42	LB133502
	Silver	202	201	100	170	232	11/18/2024	13:42	LB133502
ICSA01	Arsenic	3.30			-20	20	11/19/2024	11:47	LB133524
	Barium	5.39	6.0	90	-94	106	11/19/2024	11:47	LB133524
	Cadmium	3.48	1.0	348	-5	7	11/19/2024	11:47	LB133524
	Chromium	57.2	52.0	110	42	62	11/19/2024	11:47	LB133524
	Lead	8.06			-12	12	11/19/2024	11:47	LB133524
	Selenium	-17.4			-20	20	11/19/2024	11:47	LB133524
	Silver	-0.45			-10	10	11/19/2024	11:47	LB133524
ICSAB01	Arsenic	116	104	112	88.4	120	11/19/2024	11:51	LB133524
	Barium	525	537	98	437	637	11/19/2024	11:51	LB133524
	Cadmium	832	972	86	826	1120	11/19/2024	11:51	LB133524
	Chromium	571	542	105	460	624	11/19/2024	11:51	LB133524
	Lead	57.8	49.0	118	37	61	11/19/2024	11:51	LB133524
	Selenium	31.5	46.0	68	26	66	11/19/2024	11:51	LB133524
	Silver	201	201	100	170	232	11/19/2024	11:51	LB133524

METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client: AECOM **level:** low **sdg no.:** P4861

contract: AECO02 **lab code:** CHEM **case no.:** P4861 **sas no.:** P4861

matrix: Water **sample id:** P4861-01 **client id:** WC-11-A-202411MS

Percent Solids for Sample: NA **Spiked ID:** P4861-01MS **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	3960		100	U	4000	99		P
Barium	ug/L	75 - 125	1010		500	U	1000	101		P
Cadmium	ug/L	75 - 125	939		30.0	U	1000	94		P
Chromium	ug/L	75 - 125	2080		23.7	J	2000	103		P
Lead	ug/L	75 - 125	4570		60.0	U	5000	91		P
Mercury	ug/L	75 - 125	44.7		2.00	U	40.0	112		CV
Selenium	ug/L	75 - 125	9400		100	U	10000	94		P
Silver	ug/L	75 - 125	355		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.:** P4861

contract: AECO02 **lab code:** CHEM **case no.:** P4861 **sas no.:** P4861

matrix: Water **sample id:** P4861-01 **client id:** WC-11-A-202411MSD

Percent Solids for Sample: NA **Spiked ID:** P4861-01MSD **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	3910		100	U	4000	98		P
Barium	ug/L	75 - 125	991		500	U	1000	99		P
Cadmium	ug/L	75 - 125	929		30.0	U	1000	93		P
Chromium	ug/L	75 - 125	2060		23.7	J	2000	102		P
Lead	ug/L	75 - 125	4520		60.0	U	5000	90		P
Mercury	ug/L	75 - 125	44.3		2.00	U	40.0	111		CV
Selenium	ug/L	75 - 125	9290		100	U	10000	93		P
Silver	ug/L	75 - 125	355		50.0	U	380	93		P

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Metals
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Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Matrix: Water **Sample ID:** P4861-01 **Client ID:** WC-11-A-202411DUP

Percent Solids for Sample: NA **Duplicate ID** P4861-01DUP **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	500	U	500	U			P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	23.7	J	24.0	J	1		P
Lead	ug/L	20	60.0	U	60.0	U			P
Mercury	ug/L	20	2.00	U	2.00	U			CV
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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Matrix: Water **Sample ID:** P4861-01MS **Client ID:** WC-11-A-202411MSD

Percent Solids for Sample: NA **Duplicate ID** P4861-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3960		3910		1		P
Barium	ug/L	20	1010		991		2		P
Cadmium	ug/L	20	939		929		1		P
Chromium	ug/L	20	2080		2060		1		P
Lead	ug/L	20	4570		4520		1		P
Mercury	ug/L	20	44.7		44.3		1		CV
Selenium	ug/L	20	9400		9290		1		P
Silver	ug/L	20	355		355		0		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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165049BS							
Arsenic	ug/L	4000	4010		100	80 - 120	P
Barium	ug/L	1000	1070		107	80 - 120	P
Cadmium	ug/L	1000	1020		102	80 - 120	P
Chromium	ug/L	2000	2120		106	80 - 120	P
Lead	ug/L	5000	5120		102	80 - 120	P
Selenium	ug/L	10000	10100		101	80 - 120	P
Silver	ug/L	380	390		103	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165080BS							
Mercury	ug/L	4.0	3.49		87	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.:** lb133502 **Lab Sample ID :** P4861-01L **SDG No.:** P4861

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	500	U	2500	U			P
Cadmium	30.0	U	150	U			P
Chromium	23.7	J	250	U	100.0		P
Lead	60.0	U	300	U			P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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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ICP INTERELEMENT CORRECTION FACTORS

Client: AECOM **SDG No.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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.:** P4861

Contract: AECO02 **Lab Code:** CHEM **Case No.:** P4861 **SAS No.:** P4861

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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SAMPLE PREPARATION SUMMARY

Client: AECOM **SDG No.:** P4861

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

Case No.: P4861 **SAS No.:** P4861

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165049**						
P4861-01	WC-11-A-202411	SAM	WATER	11/18/2024	5.0	25.0	
P4861-01DUP	WC-11-A-202411DUP	DUP	WATER	11/18/2024	5.0	25.0	
P4861-01MS	WC-11-A-202411MS	MS	WATER	11/18/2024	5.0	25.0	
P4861-01MSD	WC-11-A-202411MSD	MSD	WATER	11/18/2024	5.0	25.0	
PB165019TB	PB165019TB	MB	WATER	11/18/2024	5.0	25.0	
PB165049BL	PB165049BL	MB	WATER	11/18/2024	5.0	25.0	
PB165049BS	PB165049BS	LCS	WATER	11/18/2024	5.0	25.0	

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Metals
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SAMPLE PREPARATION SUMMARY

Client: AECOM **SDG No.:** P4861

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

Case No.: P4861 **SAS No.:** P4861

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165080**						
P4861-01	WC-11-A-202411	SAM	WATER	11/19/2024	3.0	30.0	
P4861-01DUP	WC-11-A-202411DUP	DUP	WATER	11/19/2024	3.0	30.0	
P4861-01MS	WC-11-A-202411MS	MS	WATER	11/19/2024	3.0	30.0	
P4861-01MSD	WC-11-A-202411MSD	MSD	WATER	11/19/2024	3.0	30.0	
PB165019TB	PB165019TB	MB	WATER	11/19/2024	3.0	30.0	
PB165080BL	PB165080BL	MB	WATER	11/19/2024	30.0	30.0	
PB165080BS	PB165080BS	LCS	WATER	11/19/2024	30.0	30.0	

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ANALYSIS RUN LOG

Client: AECOM **Contract:** AECO02

Lab code: CHEM **Case no.:** P4861 **Sas no.:** P4861 **Sdg no.:** P4861

Instrument id number: **Method:** **Run number:** LB133502

Start date: 11/18/2024 **End date:** 11/18/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1231	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1236	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1240	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1244	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1249	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1253	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1257	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1311	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1315	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1320	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1330	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1342	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1352	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1402	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1431	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1435	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1535	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1539	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1625	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1629	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1701	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1706	Ag,As,Ba,Cd,Cr,Pb,Se
P4861-01	WC-11-A-202411	1	1727	Ag,As,Ba,Cd,Cr,Pb,Se
P4861-01DUP	WC-11-A-202411DUP	1	1731	Ag,As,Ba,Cd,Cr,Pb,Se
P4861-01L	WC-11-A-202411L	5	1735	Ag,As,Ba,Cd,Cr,Pb,Se
P4861-01MS	WC-11-A-202411MS	1	1740	Ag,As,Ba,Cd,Cr,Pb,Se
P4861-01MSD	WC-11-A-202411MSD	1	1744	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1804	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1808	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1854	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1858	Ag,As,Ba,Cd,Cr,Pb,Se

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ANALYSIS RUN LOG

Client: AECOM **Contract:** AECO02

Lab code: CHEM **Case no.:** P4861 **Sas no.:** P4861 **Sdg no.:** P4861

Instrument id number: **Method:** **Run number:** LB133509

Start date: 11/19/2024 **End date:** 11/19/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1105	HG
S0.2	S0.2	1	1107	HG
S2.5	S2.5	1	1109	HG
S5	S5	1	1111	HG
S7.5	S7.5	1	1114	HG
S10	S10	1	1116	HG
ICV90	ICV90	1	1119	HG
ICB90	ICB90	1	1121	HG
CCV05	CCV05	1	1126	HG
CCB05	CCB05	1	1128	HG
CRA	CRA	1	1130	HG
CCV06	CCV06	1	1153	HG
CCB06	CCB06	1	1155	HG
CCV07	CCV07	1	1220	HG
CCB07	CCB07	1	1223	HG
PB165080BL	PB165080BL	1	1229	HG
PB165080BS	PB165080BS	1	1238	HG
P4861-01	WC-11-A-202411	1	1240	HG
P4861-01DUP	WC-11-A-202411DUP	1	1243	HG
P4861-01MS	WC-11-A-202411MS	1	1301	HG
P4861-01MSD	WC-11-A-202411MSD	1	1303	HG
CCV08	CCV08	1	1310	HG
CCB08	CCB08	1	1312	HG
PB165019TB	PB165019TB	1	1321	HG
P4861-01L	WC-11-A-202411L	5	1328	HG
CCV09	CCV09	1	1333	HG
CCB09	CCB09	1	1335	HG

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ANALYSIS RUN LOG

Client: AECOM **Contract:** AECO02

Lab code: CHEM **Case no.:** P4861 **Sas no.:** P4861 **Sdg no.:** P4861

Instrument id number: **Method:** **Run number:** LB133524

Start date: 11/19/2024 **End date:** 11/19/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1055	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1100	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1104	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1108	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1113	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1117	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1125	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1134	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1138	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1143	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1147	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1151	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1243	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1248	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1334	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1338	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1424	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1428	Ag,As,Ba,Cd,Cr,Pb,Se
PB165019TB	PB165019TB	1	1500	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1531	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1536	Ag,As,Ba,Cd,Cr,Pb,Se
PB165049BL	PB165049BL	1	1544	Ag,As,Ba,Cd,Cr,Pb,Se
PB165049BS	PB165049BS	1	1549	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1618	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1622	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1719	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1724	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1801	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1805	Ag,As,Ba,Cd,Cr,Pb,Se

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LAB CHRONICLE

OrderID:	P4861	**OrderDate:**	11/14/2024 1:44:00 PM
Client:	AECOM	**Project:**	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4861-01	**WC-11-A-202411**	**WATER**			**11/13/24 15:00**			**11/14/24**
			Cyanide	9012B		11/18/24	11/18/24 13:12	
			Flash Point	1010B			11/15/24 14:25	
			pH	9040C			11/15/24 17:29	
			Reactive Cyanide	9012B		11/15/24	11/15/24 12:59	
			Reactive Sulfide	9034		11/18/24	11/19/24 10:03	

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	AECOM	Date Collected:	11/13/24 15:00
Project:	Meeker Ave Plumes Superfund Site RI FS	Date Received:	11/14/24
Client Sample ID:	WC-11-A-202411	SDG No.:	P4861
Lab Sample ID:	P4861-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.18		1	0.00099	0.0050	mg/L	11/18/24 08:30	11/18/24 13:12	9012B
Flash Point	>212		1	0	0	o F		11/15/24 14:25	1010B
pH	7.37	H	1	0	0	pH		11/15/24 17:29	9040C
Reactive Cyanide	0.00099	U	1	0.00099	0.0050	mg/L	11/15/24 10:20	11/15/24 12:59	9012B
Reactive Sulfide	0.43	U	1	0.43	1.00	mg/L	11/18/24 16:35	11/19/24 10:03	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.:** P4861

Project: Meeker Ave Plumes Superfund Site RI FS **RunNo.:** LB133474

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Flash Point	o F	82.1	81	101	78-84	11/15/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4861
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133475

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Reactive Cyanide	mg/L	0.095	0.099	96	85-115	11/15/2024
Sample ID: CCV1						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	11/15/2024
Sample ID: CCV2						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	11/15/2024
Sample ID: CCV3						
Reactive Cyanide	mg/L	0.24	0.25	96	90-110	11/15/2024
Sample ID: CCV4						
Reactive Cyanide	mg/L	0.26	0.25	104	90-110	11/15/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4861
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133477

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: **ICV**						
pH	pH	7.00	7	100	90-110	11/15/2024
Sample ID: **CCV1**						
pH	pH	2.01	2.00	101	90-110	11/15/2024
Sample ID: **CCV2**						
pH	pH	12.02	12.00	100	90-110	11/15/2024

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Initial and Continuing Calibration Verification

Client:	AECOM	**SDG No.:**	P4861
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133498

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**ICV1**						
Cyanide		mg/L	0.095	0.099	96	90-110	11/18/2024
Sample ID:	**CCV1**						
Cyanide		mg/L	0.24	0.25	96	90-110	11/18/2024
Sample ID:	**CCV2**						
Cyanide		mg/L	0.24	0.25	96	90-110	11/18/2024
Sample ID:	**CCV3**						
Cyanide		mg/L	0.26	0.25	104	90-110	11/18/2024

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Initial and Continuing Calibration Blank Summary

Client: AECOM **SDG No.:** P4861

Project: Meeker Ave Plumes Superfund Site RI FS **RunNo.:** LB133475

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1							
Reactive Cyanide	mg/L	0.001	0.0025	J	0.00099	0.005	11/15/2024
Sample ID: CCB1							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/15/2024
Sample ID: CCB2							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/15/2024
Sample ID: CCB3							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/15/2024
Sample ID: CCB4							
Reactive Cyanide	mg/L	0.0011	0.0025	J	0.00099	0.005	11/15/2024

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Initial and Continuing Calibration Blank Summary

Client:	AECOM	**SDG No.:**	P4861
Project:	Meeker Ave Plumes Superfund Site RI FS	**RunNo.:**	LB133498

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	11/18/2024
Sample ID:	CCB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/18/2024
Sample ID:	CCB2							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/18/2024
Sample ID:	CCB3							
Cyanide		mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/18/2024

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Preparation Blank Summary

Client: AECOM **SDG No.:** P4861

Project: Meeker Ave Plumes Superfund Site RI FS

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB165009BL							
Reactive Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/15/2024
Sample ID: PB165017BL							
Cyanide	mg/L	< 0.0025	0.0025	U	0.00099	0.005	11/18/2024
Sample ID: PB165069BL							
Reactive Sulfide	mg/L	< 0.5000	0.5000	U	0.43	1	11/19/2024

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Matrix Spike Summary

Client: AECOM
SDG No.: P4861
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4871-01
Client ID: WC-10-A-202411MS
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	0.048		0.0034	J	0.04	1	112		11/18/2024

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Matrix Spike Summary

Client: AECOM
SDG No.: P4861
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4871-01
Client ID: WC-10-A-202411MSD
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	0.047		0.0034	J	0.04	1	109		11/18/2024

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Duplicate Sample Summary

Client: AECOM
SDG No.: P4861
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4812-03
Client ID: 270DUP
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
Reactive Cyanide	mg/L	+/-20	0.00099	U	0.00099	U	1	0		11/15/2024

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Duplicate Sample Summary

Client: AECOM
SDG No.: P4861
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4861-01
Client ID: WC-11-A-202411DUP
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	7.37		7.38		1	0.14		11/15/2024
Reactive Sulfide	mg/L	+/-20	0.43	U	0.43	U	1	0		11/19/2024

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Duplicate Sample Summary

Client: AECOM
SDG No.: P4861
Project: Meeker Ave Plumes Superfund Site RI FS
Sample ID: P4871-01
Client ID: WC-10-A-202411DUP
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		11/15/2024
Cyanide	mg/L	+/-20	0.0034	J	0.0025	J	1	31	*	11/18/2024

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

Duplicate Sample Summary

Client: AECOM
Project: Meeker Ave Plumes Superfund Site RI FS
Client ID: WC-10-A-202411MSD
SDG No.: P4861
Sample ID: P4871-01
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
Cyanide	mg/L	+/-20	0.048		0.047		1	2		11/18/2024

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

Laboratory Control Sample Summary

Client:	AECOM	**SDG No.:**	P4861
Project:	Meeker Ave Plumes Superfund Site RI FS	**Run No.:**	LB133498

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID **PB165017BS**								
Cyanide	mg/L	0.1	0.095		95	1	85-115	11/18/2024

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. P4861
QUOTE NO.
COC Number 2041712

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:
CITY → SAME 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 ☐ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1 TCLP VOA
2 TCLP BNA
3 TCLP ICP Metals TCLP Mercury
4 Paint Filter
5 Reactive Cyanide
6 Reactive Sulfide
7 pH
8 TCLP Pesticide
9 PCB + Flashpoint

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1 B2406004	WC-11-A-202411	GW	X		11/13/24	1500	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Hannah Dwyer	11/14/24 1200	1. 1326 11-14-24
2.		2.
3.	11-14-24 1832	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.3 °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