



LAB CHRONICLE

OrderID:	P4871	OrderDate:	11/15/2024 9:09:00 AM
Client:	AECOM	Project:	Meeker Ave Plumes Superfund Site RI FS
Contact:	Amit Haryani	Location:	M11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4871-01	WC-10-A-202411	TCLP	TCLP VOA	8260D	11/13/24		11/18/24	11/14/24
P4871-01DL	WC-10-A-202411DL	TCLP	TCLP VOA	8260D	11/13/24		11/19/24	11/14/24

Hit Summary Sheet
SW-846

SDG No.: P4871
Client: AECOM

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	WC-10-A-202411							
P4871-01	WC-10-A-202411	TCLP	Vinyl Chloride	12.6		0.34	5.00	ug/L
P4871-01	WC-10-A-202411	TCLP	Benzene	18.8		0.16	5.00	ug/L
P4871-01	WC-10-A-202411	TCLP	Trichloroethene	220	E	0.32	5.00	ug/L
P4871-01	WC-10-A-202411	TCLP	Tetrachloroethene	2500	E	0.25	5.00	ug/L
			Total Voc :	2750				
			Total Concentration:	2750				
Client ID:	WC-10-A-202411DL							
P4871-01DL	WC-10-A-202411D	TCLP	Trichloroethene	220	JD	32.0	500	ug/L
P4871-01DL	WC-10-A-202411D	TCLP	Tetrachloroethene	2500	D	25.0	500	ug/L
			Total Voc :	2720				
			Total Concentration:	2720				



SAMPLE DATA

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-10-A-202411	SDG No.:	P4871
Lab Sample ID:	P4871-01	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
VN084925.D	1		11/18/24 17:16	VN111824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	12.6		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	5.00	ug/L
71-43-2	Benzene	18.8		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	220	E	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	2500	E	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	48.8		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		75 - 124	93%	SPK: 50
2037-26-5	Toluene-d8	47.6		86 - 113	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.9		77 - 121	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	212000	8.224			
540-36-3	1,4-Difluorobenzene	375000	9.1			
3114-55-4	Chlorobenzene-d5	342000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	177000	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

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-10-A-202411DL	SDG No.:	P4871
Lab Sample ID:	P4871-01DL	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
VN084949.D	100		11/19/24 16:04	VN111924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	34.0	UD	34.0	500	ug/L
75-35-4	1,1-Dichloroethene	26.0	UD	26.0	500	ug/L
78-93-3	2-Butanone	130	UD	130	2500	ug/L
56-23-5	Carbon Tetrachloride	25.0	UD	25.0	500	ug/L
67-66-3	Chloroform	26.0	UD	26.0	500	ug/L
71-43-2	Benzene	16.0	UD	16.0	500	ug/L
107-06-2	1,2-Dichloroethane	24.0	UD	24.0	500	ug/L
79-01-6	Trichloroethene	220	JD	32.0	500	ug/L
127-18-4	Tetrachloroethene	2500	D	25.0	500	ug/L
108-90-7	Chlorobenzene	13.0	UD	13.0	500	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.1		74 - 125	104%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		75 - 124	94%	SPK: 50
2037-26-5	Toluene-d8	45.9		86 - 113	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.9		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	165000	8.218			
540-36-3	1,4-Difluorobenzene	309000	9.1			
3114-55-4	Chlorobenzene-d5	269000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	122000	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

Surrogate Summary

SDG No.: P4871

Client: AECOM

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P4871-01	WC-10-A-202411	1,2-Dichloroethane-d4	50	48.8	98	74	125
		Dibromofluoromethane	50	46.5	93	75	124
		Toluene-d8	50	47.6	95	86	113
		4-Bromofluorobenzene	50	55.9	112	77	121
P4871-01DL	WC-10-A-202411DL	1,2-Dichloroethane-d4	50	52.1	104	74	125
		Dibromofluoromethane	50	47.2	94	75	124
		Toluene-d8	50	45.9	92	86	113
		4-Bromofluorobenzene	50	47.9	96	77	121

Surrogate Summary

SDG No.: P4871

Client: AECOM

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	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
VN1119WBL01	VN1119WBL01	1,2-Dichloroethane-d4	50	51.3	103	74	125
		Dibromofluoromethane	50	48.4	97	75	124
		Toluene-d8	50	46.5	93	86	113
		4-Bromofluorobenzene	50	45.9	92	77	121
VN1119WBS01	VN1119WBS01	1,2-Dichloroethane-d4	50	47.8	96	74	125
		Dibromofluoromethane	50	46.5	93	75	124
		Toluene-d8	50	45.6	91	86	113
		4-Bromofluorobenzene	50	48.2	96	77	121

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4871

Client: AECOM

Analytical Method: SW8260-Low

Datafile : VN084919.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
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	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4871

Client: AECOM

Analytical Method: SW8260-Low

Datafile : VN084923.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
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

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4871

Client: AECOM

Analytical Method: SW8260-Low

Datafile : VN084938.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1119WBS01	Vinyl chloride	20	19.4	ug/L	97			65	117	
	1,1-Dichloroethene	20	18.9	ug/L	95			74	110	
	2-Butanone	100	120	ug/L	120			65	122	
	Carbon Tetrachloride	20	19.5	ug/L	98			77	113	
	Chloroform	20	20.7	ug/L	104			79	113	
	Benzene	20	19.3	ug/L	97			82	109	
	1,2-Dichloroethane	20	21.1	ug/L	106			80	115	
	Trichloroethene	20	18.7	ug/L	94			77	113	
	Tetrachloroethene	20	19.2	ug/L	96			67	123	
	Chlorobenzene	20	18.9	ug/L	95			82	109	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1118WBL01

Lab Name: CHEMTECH

Contract: AECO02

Lab Code: CHEM Case No.: P4871

SAS No.: P4871 SDG NO.: P4871

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-10-A-202411	P4871-01	VN084925.D	11/18/2024

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1119WBL01

Lab Name: CHEMTECH

Contract: AECO02

Lab Code: CHEM Case No.: P4871

SAS No.: P4871 SDG NO.: P4871

Lab File ID: VN084937.D

Lab Sample ID: VN1119WBL01

Date Analyzed: 11/19/2024

Time Analyzed: 11:07

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
VN1119WBS01	VN1119WBS01	VN084938.D	11/19/2024
WC-10-A-202411DL	P4871-01DL	VN084949.D	11/19/2024

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
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-10-A-202411	P4871-01	VN084925.D	11/18/2024	17:16

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
Lab File ID: VN084934.D BFB Injection Date: 11/19/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:15
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	18
75	30.0 - 60.0% of mass 95	51.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	1 (1.4) 1
174	50.0 - 100.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.1 (7.1) 1
176	95.0 - 101.0% of mass 174	68.9 (95.3) 1
177	5.0 - 9.0% of mass 176	4.4 (6.4) 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	VN084935.D	11/19/2024	09:27
VN1119WBL01	VN1119WBL01	VN084937.D	11/19/2024	11:07
VN1119WBS01	VN1119WBS01	VN084938.D	11/19/2024	11:40
WC-10-A-202411DL	P4871-01DL	VN084949.D	11/19/2024	16:04

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
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-10-A-202411	212261	8.22	374690	9.10	341618	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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02
 Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
 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-10-A-202411	177257	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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
Lab File ID: VN084935.D Date Analyzed: 11/19/2024
Instrument ID: MSVOA_N Time Analyzed: 09:27
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	191121	8.22	319795	9.09	272380	11.87
UPPER LIMIT	382242	8.718	639590	9.594	544760	12.365
LOWER LIMIT	95560.5	7.718	159898	8.594	136190	11.365
EPA SAMPLE NO.						
WC-10-A-202411DL	165251	8.22	308690	9.10	269378	11.87
VN1119WBL01	193589	8.22	346862	9.10	301411	11.87
VN1119WBS01	167364	8.22	286809	9.10	252679	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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AECO02
Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG NO.: P4871
Lab File ID: VN084935.D Date Analyzed: 11/19/2024
Instrument ID: MSVOA_N Time Analyzed: 09:27
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	140060	13.788				
UPPER LIMIT	280120	14.288				
LOWER LIMIT	70030	13.288				
EPA SAMPLE NO.						
WC-10-A-202411DL	122161	13.79				
VN1119WBL01	128229	13.79				
VN1119WBS01	131165	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

Report of Analysis

Client:	AECOM		Date Collected:		
Project:	Meeker Ave Plumes Superfund Site RI FS		Date Received:		
Client Sample ID:	VN1118WBL01		SDG No.:	P4871	
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

Report of Analysis

Client:	AECOM		Date Collected:		
Project:	Meeker Ave Plumes Superfund Site RI FS		Date Received:		
Client Sample ID:	VN1119WBL01		SDG No.:	P4871	
Lab Sample ID:	VN1119WBL01		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
VN084937.D	1		11/19/24 11:07	VN111924

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	51.3		74 - 125	103%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	46.5		86 - 113	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.9		77 - 121	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	194000	8.218			
540-36-3	1,4-Difluorobenzene	347000	9.1			
3114-55-4	Chlorobenzene-d5	301000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.788			

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* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	AECOM		Date Collected:		
Project:	Meeker Ave Plumes Superfund Site RI FS		Date Received:		
Client Sample ID:	VN1118WBS01		SDG No.:	P4871	
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			

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D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	AECOM		Date Collected:		
Project:	Meeker Ave Plumes Superfund Site RI FS		Date Received:		
Client Sample ID:	VN1119WBS01		SDG No.:	P4871	
Lab Sample ID:	VN1119WBS01		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
VN084938.D	1		11/19/24 11:40	VN111924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	19.4		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.9		0.26	1.00	ug/L
78-93-3	2-Butanone	120		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.5		0.25	1.00	ug/L
67-66-3	Chloroform	20.7		0.26	1.00	ug/L
71-43-2	Benzene	19.3		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.1		0.24	1.00	ug/L
79-01-6	Trichloroethene	18.7		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.25	1.00	ug/L
108-90-7	Chlorobenzene	18.9		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		75 - 124	93%	SPK: 50
2037-26-5	Toluene-d8	45.6		86 - 113	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	167000	8.218			
540-36-3	1,4-Difluorobenzene	287000	9.1			
3114-55-4	Chlorobenzene-d5	253000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	131000	13.788			

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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

Report of Analysis

Client:	AECOM		Date Collected:		
Project:	Meeker Ave Plumes Superfund Site RI FS		Date Received:		
Client Sample ID:	VN1118WBSD01		SDG No.:	P4871	
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			

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LOQ = Limit of Quantitation

MDL = Method Detection Limit

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J = Estimated Value

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* = Values outside of QC limits

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AECO02
 Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG No.: P4871
 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	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.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG No.: P4871

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.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AECO02

Lab Code: CHEM Case No.: P4871 SAS No.: P4871 SDG No.: P4871

Instrument ID: MSVOA_N Calibration Date/Time: 11/19/2024 09:27

Lab File ID: VN084935.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	0.560		-9.39	20
1,1-Dichloroethene	0.569	0.508		-10.72	20
2-Butanone	0.337	0.360		6.82	20
Carbon Tetrachloride	0.525	0.510		-2.86	20
Chloroform	1.121	1.094		-2.41	20
Benzene	1.507	1.411		-6.37	20
1,2-Dichloroethane	0.488	0.486		-0.41	20
Trichloroethene	0.348	0.317		-8.91	20
Tetrachloroethene	0.333	0.320		-3.9	20
Chlorobenzene	1.119	1.066	0.3	-4.74	20
1,2-Dichloroethane-d4	0.722	0.672		-6.93	20
Dibromofluoromethane	0.338	0.314		-7.1	20
Toluene-d8	1.247	1.131		-9.3	20
4-Bromofluorobenzene	0.466	0.444		-4.72	20

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