



LAB CHRONICLE

OrderID:	P4475	OrderDate:	10/22/2024 10:05:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	K61,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4475-04	BP-VPB-190-GW-238-240	Water			10/18/24			10/21/24
			SVOC-SIMGroup1	8270-Modified		10/22/24	10/24/24	
P4475-06	BP-VPB-190-GW-278-280	Water			10/21/24			10/21/24
			SVOC-SIMGroup1	8270-Modified		10/22/24	10/24/24	



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

Hit Summary Sheet SW-846

SDG No.: P4475
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : BP-VPB-190-GW-238-240								
P4475-04	BP-VPB-190-GW-238-24 WATER	1,4-Dioxane	0.070	J	0.07	0.2	0.2	ug/L
		Total Svoc :			0.07			
		Total Concentration:			0.07			
Client ID : BP-VPB-190-GW-278-280								
P4475-06	BP-VPB-190-GW-278-28 WATER	1,4-Dioxane	0.410		0.07	0.21	0.21	ug/L
		Total Svoc :			0.41			
		Total Concentration:			0.41			



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/18/24
Project:	CTO WE13	Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-238-240	SDG No.:	P4475
Lab Sample ID:	P4475-04	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
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
BN034697.D	1	10/22/24 11:31	10/24/24 17:54	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.070	J	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.38		30 - 150		94%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.32		53 - 106		80%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		116%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6070	7.712				
1146-65-2	Naphthalene-d8	17800	10.479				
15067-26-2	Acenaphthene-d10	8150	14.329				
1517-22-2	Phenanthrene-d10	14700	17.069				
1719-03-5	Chrysene-d12	9320	21.25				
1520-96-3	Perylene-d12	8560	23.466				

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:	Tetra Tech NUS, Inc.		Date Collected:	10/21/24
Project:	CTO WE13		Date Received:	10/21/24
Client Sample ID:	BP-VPB-190-GW-278-280		SDG No.:	P4475
Lab Sample ID:	P4475-06		Matrix:	Water
Analytical Method:	SW8270SIM		% Solid:	0
Sample Wt/Vol:	960	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
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
BN034698.D	1	10/22/24 11:31	10/24/24 18:30	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.41		0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.49		58 - 132		122%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5960	7.712				
1146-65-2	Naphthalene-d8	17200	10.479				
15067-26-2	Acenaphthene-d10	7850	14.329				
1517-22-2	Phenanthrene-d10	14300	17.069				
1719-03-5	Chrysene-d12	9270	21.25				
1520-96-3	Perylene-d12	8680	23.467				

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

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4475-04	BP-VPB-190-GW-238-240	2-Methylnaphthalene-d10	0.4	0.30	74		30	150
		Fluoranthene-d10	0.4	0.38	94		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.32	80		53	106
		Terphenyl-d14	0.4	0.46	116		58	132
		2-Methylnaphthalene-d10	0.4	0.29	72		30	150
P4475-06	BP-VPB-190-GW-278-280	Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.49	122		58	132
		2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.35	86		30	150
PB164323BL	PB164323BL	Nitrobenzene-d5	0.4	0.34	86		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.39	97		58	132
		2-Methylnaphthalene-d10	0.4	0.47	118		30	150
		Fluoranthene-d10	0.4	0.33	82		30	150
		Nitrobenzene-d5	0.4	0.33	83		55	111
PB164323BS	PB164323BS	2-Fluorobiphenyl	0.4	0.36	89		53	106
		Terphenyl-d14	0.4	0.37	94		58	132
		2-Methylnaphthalene-d10	0.4	0.49	123		30	150
		Fluoranthene-d10	0.4	0.35	86		30	150
		Nitrobenzene-d5	0.4	0.35	86		55	111
		2-Fluorobiphenyl	0.4	0.38	94		53	106
PB164323BSD	PB164323BSD	Terphenyl-d14	0.4	0.39	98		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034708.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB164323BS	1,4-Dioxane	0.4	0.29	ug/L	73				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4475

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN034709.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB164323BSD	1,4-Dioxane	0.4	0.30	ug/L	75	3			70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164323BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4475

SAS No.: P4475 SDG NO.: P4475

Lab File ID: BN034703.D

Lab Sample ID: PB164323BL

Instrument ID: BNA_N

Date Extracted: 10/22/2024

Matrix: (soil/water) Water

Date Analyzed: 10/24/2024

Level: (low/med) LOW

Time Analyzed: 22:14

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164323BS	PB164323BS	BN034708.D	10/25/2024
PB164323BSD	PB164323BSD	BN034709.D	10/25/2024
BP-VPB-190-GW-238-240	P4475-04	BN034697.D	10/24/2024
BP-VPB-190-GW-278-280	P4475-06	BN034698.D	10/24/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4475

SDG NO.: P4475

Lab File ID: BN034683.D

DFTPP Injection Date: 10/24/2024

Instrument ID: BNA_N

DFTPP Injection Time: 07:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	66.1
68	Less than 2.0% of mass 69	0.9 (1.7) 1
69	Mass 69 relative abundance	54.4
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	60.3
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	6.5
275	10.0 - 60.0% of mass 198	20.6
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	7.8
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.1 (18.6) 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
SSTDICC0.1	SSTDICC0.1	BN034684.D	10/24/2024	09:11
SSTDICC0.2	SSTDICC0.2	BN034685.D	10/24/2024	09:47
SSTDICCC0.4	SSTDICCC0.4	BN034686.D	10/24/2024	10:23
SSTDICC0.8	SSTDICC0.8	BN034687.D	10/24/2024	10:59
SSTDICC1.6	SSTDICC1.6	BN034688.D	10/24/2024	11:35
SSTDICC3.2	SSTDICC3.2	BN034689.D	10/24/2024	12:11
SSTDICC5.0	SSTDICC5.0	BN034690.D	10/24/2024	12:48
BP-VPB-190-GW-238-240	P4475-04	BN034697.D	10/24/2024	17:54
BP-VPB-190-GW-278-280	P4475-06	BN034698.D	10/24/2024	18:30
SSTDCCC0.4EC	SSTDCCC0.4	BN034699.D	10/24/2024	19:06

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4475

SDG NO.: P4475

Lab File ID: BN034700.D

DFTPP Injection Date: 10/24/2024

Instrument ID: BNA_N

DFTPP Injection Time: 20:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	73.1
68	Less than 2.0% of mass 69	0.9 (1.6) 1
69	Mass 69 relative abundance	59.5
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	65.2
197	Less than 2.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 60.0% of mass 198	20.7
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	7.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.2 (21.6) 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
SSTDCCC0.4	SSTDCCC0.4	BN034701.D	10/24/2024	21:01
PB164323BL	PB164323BL	BN034703.D	10/24/2024	22:14
PB164323BS	PB164323BS	BN034708.D	10/25/2024	01:14
PB164323BSD	PB164323BSD	BN034709.D	10/25/2024	01:50
SSTDCCC0.4EC	SSTDCCC0.4	BN034719.D	10/25/2024	07:51

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034686.D Time Analyzed: 10:23

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	6324	7.712	18497	10.48	9311	14.33
UPPER LIMIT	12648	8.212	36994	10.979	18622	14.829
LOWER LIMIT	3162	7.212	9248.5	9.979	4655.5	13.829
EPA SAMPLE NO.						
01 BP-VPB-190-GW-238-240	6066	7.71	17751	10.48	8148	14.33
02 BP-VPB-190-GW-278-280	5957	7.71	17174	10.48	7846	14.33

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034686.D Time Analyzed: 10:23

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	18185	17.069	10628	21.25	9595	23.467
UPPER LIMIT	36370	17.569	21256	21.75	19190	23.967
LOWER LIMIT	9092.5	16.569	5314	20.75	4797.5	22.967
EPA SAMPLE NO.						
01 BP-VPB-190-GW-238-240	14702	17.07	9316	21.25	8560	23.47
02 BP-VPB-190-GW-278-280	14328	17.07	9271	21.25	8678	23.47

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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034701.D Time Analyzed: 21:01

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	5885	7.712	17350	10.48	8078	14.33
UPPER LIMIT	11770	8.212	34700	10.979	16156	14.825
LOWER LIMIT	2942.5	7.212	8675	9.979	4039	13.825
EPA SAMPLE NO.						
01 PB164323BL	5922	7.71	16459	10.48	7081	14.33
02 PB164323BS	5858	7.71	16234	10.48	6999	14.33
03 PB164323BSD	6013	7.71	16515	10.48	7014	14.33

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG NO.: P4475

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 10/24/2024

Lab File ID: BN034701.D Time Analyzed: 21:01

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	14577	17.064	8841	21.248	8336	23.464
UPPER LIMIT	29154	17.564	17682	21.748	16672	23.964
LOWER LIMIT	7288.5	16.564	4420.5	20.748	4168	22.964
EPA SAMPLE NO.						
01 PB164323BL	12571	17.06	6974	21.25	6412	23.46
02 PB164323BS	12898	17.06	7136	21.24	5990	23.46
03 PB164323BSD	12765	17.06	7084	21.24	5993	23.46

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164323BL		SDG No.:	P4475	
Lab Sample ID:	PB164323BL		Matrix:	Water	
Analytical Method:	SW8270SIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
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
BN034703.D	1	10/22/24 11:31	10/24/24 22:14	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.39		58 - 132		97%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5920	7.712				
1146-65-2	Naphthalene-d8	16500	10.479				
15067-26-2	Acenaphthene-d10	7080	14.325				
1517-22-2	Phenanthrene-d10	12600	17.064				
1719-03-5	Chrysene-d12	6970	21.248				
1520-96-3	Perylene-d12	6410	23.461				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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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

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB164323BS		SDG No.:	P4475
Lab Sample ID:	PB164323BS		Matrix:	Water
Analytical Method:	SW8270SIM		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
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
BN034708.D	1	10/22/24 11:31	10/25/24 01:14	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.29		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		118%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		82%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		55 - 111		83%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		89%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		58 - 132		94%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5860	7.712				
1146-65-2	Naphthalene-d8	16200	10.479				
15067-26-2	Acenaphthene-d10	7000	14.329				
1517-22-2	Phenanthrene-d10	12900	17.057				
1719-03-5	Chrysene-d12	7140	21.241				
1520-96-3	Perylene-d12	5990	23.461				

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:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB164323BSD		SDG No.:	P4475
Lab Sample ID:	PB164323BSD		Matrix:	Water
Analytical Method:	SW8270SIM		% Solid:	0
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
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
BN034709.D	1	10/22/24 11:31	10/25/24 01:50	PB164323

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.49		30 - 150		123%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		94%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.39		58 - 132		98%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6010	7.712				
1146-65-2	Naphthalene-d8	16500	10.479				
15067-26-2	Acenaphthene-d10	7010	14.329				
1517-22-2	Phenanthrene-d10	12800	17.057				
1719-03-5	Chrysene-d12	7080	21.241				
1520-96-3	Perylene-d12	5990	23.464				

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

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
 Method File : 8270-SIM-BN102424.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Thu Oct 24 13:17:02 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN034684.D 0.2 =BN034685.D 0.4 =BN034686.D 0.8 =BN034687.D 1.6 =BN034688.D 3.2 =BN034689.D 5.0 =BN034690.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD

1) I	1,4-Dichlorobenzen...	-----ISTD-----								
2)	1,4-Dioxane	0.621	0.564	0.485	0.545	0.530	0.503	0.479	0.532	9.40
3)	n-Nitrosodimet...	0.775	0.766	0.704	0.842	0.827	0.761	0.749	0.775	6.06
4) S	2-Fluorophenol	1.188	1.202	1.070	1.268	1.253	1.168	1.177	1.189	5.46
5) S	Phenol-d6	1.556	1.554	1.386	1.658	1.657	1.569	1.597	1.568	5.85
6)	bis(2-Chloroet...	1.306	1.281	1.140	1.380	1.346	1.243	1.220	1.274	6.37
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.345	0.323	0.294	0.354	0.349	0.337	0.348	0.336	6.27
9)	Naphthalene	1.126	1.100	0.987	1.182	1.157	1.094	1.101	1.107	5.61
10)	Hexachlorobuta...	0.175	0.169	0.149	0.178	0.170	0.160	0.159	0.166	6.23
11) SURR	2-Methylnaphth...	0.542	0.534	0.481	0.583	0.586	0.557	0.566	0.550	6.53
12)	2-Methylnaphth...	0.675	0.670	0.600	0.729	0.730	0.697	0.705	0.687	6.50
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.110	0.118	0.096	0.127	0.133	0.136	0.146	0.124	13.66
15) S	2-Fluorobiphenyl	1.661	1.577	1.379	1.703	1.666	1.540	1.601	1.590	6.84
16)	Acenaphthylene	1.900	1.860	1.581	2.040	2.038	1.964	2.064	1.921	8.76
17)	Acenaphthene	1.318	1.286	1.122	1.435	1.407	1.329	1.370	1.324	7.79
18)	Fluorene	1.598	1.609	1.388	1.764	1.750	1.663	1.663	1.634	7.68
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.048	0.043	0.055	0.059	0.063	0.067	0.056		16.66
21)	4-Bromophenyl-...	0.217	0.211	0.190	0.224	0.221	0.212	0.219	0.213	5.22
22)	Hexachlorobenzene	0.238	0.234	0.211	0.243	0.238	0.226	0.229	0.231	4.55
23)	Atrazine	0.151	0.158	0.140	0.183	0.181	0.181	0.179	0.168	10.55
24)	Pentachlorophenol	0.065	0.064	0.083	0.087	0.092	0.100	0.082		17.73
25)	Phenanthrene	1.214	1.208	1.065	1.273	1.244	1.191	1.215	1.202	5.49
26)	Anthracene	1.006	1.043	0.931	1.124	1.127	1.102	1.131	1.067	7.17
27) SURR	Fluoranthene-d10	0.870	0.885	0.784	0.994	0.951	0.913	0.910	0.901	7.35
28)	Fluoranthene	1.188	1.222	1.092	1.380	1.333	1.290	1.269	1.253	7.66
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	2.066	2.035	1.880	2.152	2.164	2.039	2.048	2.055	4.57
31) S	Terphenyl-d14	0.813	0.797	0.740	0.867	0.865	0.820	0.820	0.817	5.27
32)	Benzo(a)anthra...	1.502	1.445	1.373	1.640	1.613	1.553	1.570	1.528	6.19
33)	Chrysene	1.642	1.568	1.442	1.709	1.643	1.533	1.531	1.581	5.68
34)	Bis(2-ethylhex...	0.901	0.779	0.722	0.843	0.878	0.915	1.030	0.867	11.48
35) I	Perylene-d12	-----ISTD-----								

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\

Method File : 8270-SIM-BN102424.M

36)	Indeno(1,2,3-c...	1.562	1.447	1.418	1.596	1.620	1.517	1.624	1.541	5.39
37)	Benzo(b)fluora...	1.543	1.516	1.481	1.714	1.699	1.614	1.615	1.597	5.57
38)	Benzo(k)fluora...	1.511	1.491	1.386	1.723	1.712	1.596	1.613	1.576	7.75
39) C	Benzo(a)pyrene	1.203	1.188	1.157	1.369	1.383	1.323	1.350	1.282	7.45
40)	Dibenzo(a,h)an...	1.236	1.139	1.113	1.246	1.283	1.201	1.288	1.215	5.58
41)	Benzo(g,h,i)pe...	1.397	1.287	1.262	1.377	1.387	1.290	1.378	1.340	4.28

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: BNA_N Calibration Date/Time: 10/24/2024 19:06

Lab File ID: BN034699.D Init. Calib. Date(s): 10/24/2024 10/24/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:11 12:48

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.482		-12.4	50.0
Fluoranthene-d10	0.901	0.776		-13.9	50.0
2-Fluorophenol	1.189	1.225		3.0	50.0
Phenol-d6	1.568	1.669		6.4	50.0
Nitrobenzene-d5	0.336	0.294		-12.5	50.0
2-Fluorobiphenyl	1.590	1.420		-10.7	50.0
2,4,6-Tribromophenol	0.124	0.099		-20.2	50.0
Terphenyl-d14	0.817	0.703		-14.0	50.0
1,4-Dioxane	0.532	0.488		-8.3	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475

Instrument ID: BNA_N Calibration Date/Time: 10/24/2024 21:01

Lab File ID: BN034701.D Init. Calib. Date(s): 10/24/2024 10/24/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:11 12:48

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.473		-14.0	20.0
Fluoranthene-d10	0.901	0.768		-14.8	20.0
2-Fluorophenol	1.189	1.172		-1.4	20.0
Phenol-d6	1.568	1.616		3.1	20.0
Nitrobenzene-d5	0.336	0.290		-13.7	20.0
2-Fluorobiphenyl	1.590	1.425		-10.4	20.0
2,4,6-Tribromophenol	0.124	0.096		-22.6	20.0
Terphenyl-d14	0.817	0.690		-15.5	20.0
1,4-Dioxane	0.532	0.489		-8.1	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4475 SAS No.: P4475 SDG No.: P4475
Instrument ID: BNA_N Calibration Date/Time: 10/25/2024 07:51
Lab File ID: BN034719.D Init. Calib. Date(s): 10/24/2024 10/24/2024
EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:11 12:48
GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.550	0.486		-11.6	50.0
Fluoranthene-d10	0.901	0.942		4.6	50.0
2-Fluorophenol	1.189	1.294		8.8	50.0
Phenol-d6	1.568	1.736		10.7	50.0
Nitrobenzene-d5	0.336	0.300		-10.7	50.0
2-Fluorobiphenyl	1.590	1.367		-14.0	50.0
2,4,6-Tribromophenol	0.124	0.113		-8.9	50.0
Terphenyl-d14	0.817	0.696		-14.8	50.0
1,4-Dioxane	0.532	0.475		-10.7	50.0

All other compounds must meet a minimum RRF of 0.010.