



LAB CHRONICLE

OrderID:	P5374	OrderDate:	12/20/2024 3:07:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5374-03	BP-VPB-190A-GW-718 -720	Water	SVOC-SIMGroup1	8270-Modified	12/18/24	12/23/24	12/26/24	12/20/24



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

Hit Summary Sheet SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	BP-VPB-190A-GW-718-720							
P5374-03	BP-VPB-190A-GW-718- WATER	1,4-Dioxane	0.520		0.07	0.21	0.21	ug/L
		Total Svoc :		0.52				
		Total Concentration:		0.52				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/18/24
Project:	CTO WE13		Date Received:	12/20/24
Client Sample ID:	BP-VPB-190A-GW-718-720		SDG No.:	P5374
Lab Sample ID:	P5374-03		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	970	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 :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035850.D	1	12/23/24 13:29	12/26/24 13:07	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.52		0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		70%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.22		30 - 150		55%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		55 - 111		60%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.21		53 - 106		53%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.29		58 - 132		73%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3720	7.257				
1146-65-2	Naphthalene-d8	9840	9.999				
15067-26-2	Acenaphthene-d10	7030	13.914				
1517-22-2	Phenanthrene-d10	14700	16.686				
1719-03-5	Chrysene-d12	12500	20.938				
1520-96-3	Perylene-d12	12300	23.018				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P5374-03	BP-VPB-190A-GW-718-720	2-Methylnaphthalene-d10	0.4	0.28	70		30	150
		Fluoranthene-d10	0.4	0.22	55		30	150
		Nitrobenzene-d5	0.4	0.24	60		55	111
		2-Fluorobiphenyl	0.4	0.21	53		53	106
		Terphenyl-d14	0.4	0.29	73		58	132
P5376-08MS	RW10-MW01S-20241218MS	2-Methylnaphthalene-d10	0.4	0.43	107		30	150
		Fluoranthene-d10	0.4	0.43	106		30	150
		Nitrobenzene-d5	0.4	0.42	106		55	111
		2-Fluorobiphenyl	0.4	0.38	94		53	106
		Terphenyl-d14	0.4	0.49	122		58	132
P5376-09MSD	RW10-MW01S-20241218MSD	2-Methylnaphthalene-d10	0.4	0.43	108		30	150
		Fluoranthene-d10	0.4	0.43	108		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.51	128		58	132
PB165828BL	PB165828BL	2-Methylnaphthalene-d10	0.4	0.34	86		30	150
		Fluoranthene-d10	0.4	0.40	100		30	150
		Nitrobenzene-d5	0.4	0.42	105		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.48	120		58	132
PB165828BS	PB165828BS	2-Methylnaphthalene-d10	0.4	0.47	116		30	150
		Fluoranthene-d10	0.4	0.34	85		30	150
		Nitrobenzene-d5	0.4	0.49	122	*	55	111
		2-Fluorobiphenyl	0.4	0.39	98		53	106
		Terphenyl-d14	0.4	0.48	119		58	132



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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.
Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	P5376-08MS	Client Sample ID:	RW10-MW01S-20241218MS					DataFile:	BN035821.D		
1,4-Dioxane	0.4	0.10	0.31	ug/L	53	*			70	130	



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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.
Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	P5376-09MSD	Client Sample ID:	RW10-MW01S-20241218MSD					DataFile:	BN035822.D		
1,4-Dioxane	0.41	0.10	0.31	ug/L	51	*	4		70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN035852.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB165828BS	1,4-Dioxane	0.4	0.35	ug/L	88				70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165828BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P5374

SAS No.: P5374 SDG NO.: P5374

Lab File ID: BN035812.D

Lab Sample ID: PB165828BL

Instrument ID: BNA_N

Date Extracted: 12/23/2024

Matrix: (soil/water) Water

Date Analyzed: 12/24/2024

Level: (low/med) LOW

Time Analyzed: 09:35

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BP-VPB-190A-GW-718-720	P5374-03	BN035850.D	12/26/2024
PB165828BS	PB165828BS	BN035852.D	12/26/2024
RW10-MW01S-20241218MS	P5376-08MS	BN035821.D	12/24/2024
RW10-MW01S-20241218MSD	P5376-09MSD	BN035822.D	12/24/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374

SDG NO.: P5374

Lab File ID: BN035349.D

DFTPP Injection Date: 11/27/2024

Instrument ID: BNA_N

DFTPP Injection Time: 14:55

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	28.9
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	39.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.9
365	Greater than 1% of mass 198	4.6
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14 (19.7) 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	BN035350.D	11/27/2024	15:34
SSTDICC0.2	SSTDICC0.2	BN035351.D	11/27/2024	16:10
SSTDICCC0.4	SSTDICCC0.4	BN035352.D	11/27/2024	16:46
SSTDICC0.8	SSTDICC0.8	BN035353.D	11/27/2024	17:21
SSTDICC1.6	SSTDICC1.6	BN035354.D	11/27/2024	17:57
SSTDICC3.2	SSTDICC3.2	BN035355.D	11/27/2024	18:33
SSTDICC5.0	SSTDICC5.0	BN035356.D	11/27/2024	19:09

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374

SDG NO.: P5374

Lab File ID: BN035810.D

DFTPP Injection Date: 12/24/2024

Instrument ID: BNA_N

DFTPP Injection Time: 07:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.9
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	39.2
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	6.8
275	10.0 - 60.0% of mass 198	29.6
365	Greater than 1% of mass 198	4.5
441	Present, but less than mass 443	13.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.2 (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
SSTDCCC0.4	SSTDCCC0.4	BN035811.D	12/24/2024	08:59
PB165828BL	PB165828BL	BN035812.D	12/24/2024	09:35
RW10-MW01S-20241218MS	P5376-08MS	BN035821.D	12/24/2024	14:55
RW10-MW01S-20241218MSD	P5376-09MSD	BN035822.D	12/24/2024	15:31
SSTDCCC0.4EC	SSTDCCC0.4	BN035828.D	12/24/2024	19:05

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374 SDG NO.: P5374

Lab File ID: BN035844.D

DFTPP Injection Date: 12/26/2024

Instrument ID: BNA_N

DFTPP Injection Time: 09:19

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	24
68	Less than 2.0% of mass 69	0.2 (0.6) 1
69	Mass 69 relative abundance	32.9
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.1 (20.5) 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
SSTDCCC0.4	SSTDCCC0.4	BN035845.D	12/26/2024	09:58
BP-VPB-190A-GW-718-720	P5374-03	BN035850.D	12/26/2024	13:07
PB165828BS	PB165828BS	BN035852.D	12/26/2024	14:19
SSTDCCC0.4EC	SSTDCCC0.4	BN035861.D	12/26/2024	19:41

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/24/2024

Lab File ID: BN035811.D Time Analyzed: 08:59

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	3972	7.264	9483	10.00	5387	13.92
UPPER LIMIT	7944	7.764	18966	10.498	10774	14.424
LOWER LIMIT	1986	6.764	4741.5	9.498	2693.5	13.424
EPA SAMPLE NO.						
01 RW10-MW01S-20241218MS	3131	7.26	7403	10.00	4434	13.91
02 RW10-MW01S-20241218MSD	3187	7.26	7953	10.00	4887	13.91
03 PB165828BL	3197	7.26	6952	10.02	4346	13.94

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.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/24/2024

Lab File ID: BN035811.D Time Analyzed: 08:59

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	10855	16.698	8569	20.947	8879	23.029
UPPER LIMIT	21710	17.198	17138	21.447	17758	23.529
LOWER LIMIT	5427.5	16.198	4284.5	20.447	4439.5	22.529
EPA SAMPLE NO.						
01 RW10-MW01S-20241218MS	9040	16.69	8798	20.95	9479	23.03
02 RW10-MW01S-20241218MSD	10068	16.69	9501	20.94	9990	23.02
03 PB165828BL	8099	16.71	6756	20.96	6747	23.04

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.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/26/2024

Lab File ID: BN035845.D Time Analyzed: 09:58

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	3755	7.257	9322	10.00	5387	13.91
UPPER LIMIT	7510	7.757	18644	10.499	10774	14.414
LOWER LIMIT	1877.5	6.757	4661	9.499	2693.5	13.414
EPA SAMPLE NO.						
01 BP-VPB-190A-GW-718-720	3717	7.26	9841	10.00	7032	13.91
02 PB165828BS	4431	7.26	10905	10.00	6427	13.91

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/26/2024

Lab File ID: BN035845.D Time Analyzed: 09:58

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	11262	16.686	9932	20.938	10817	23.021
UPPER LIMIT	22524	17.186	19864	21.438	21634	23.521
LOWER LIMIT	5631	16.186	4966	20.438	5408.5	22.521
EPA SAMPLE NO.						
01 BP-VPB-190A-GW-718-720	14733	16.69	12545	20.94	12258	23.02
02 PB165828BS	13001	16.69	9257	20.94	9148	23.02

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:	PB165828BL		SDG No.:	P5374	
Lab Sample ID:	PB165828BL		Matrix:	Water	
Analytical Method:	SW8270ESIM		% 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 :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035812.D	1	12/23/24 13:29	12/24/24 09:35	PB165828

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	0.34		30 - 150		86%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		100%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		105%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		120%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3200	7.264				
1146-65-2	Naphthalene-d8	6950	10.02				
15067-26-2	Acenaphthene-d10	4350	13.935				
1517-22-2	Phenanthrene-d10	8100	16.711				
1719-03-5	Chrysene-d12	6760	20.956				
1520-96-3	Perylene-d12	6750	23.038				

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:	PB165828BS		SDG No.:	P5374	
Lab Sample ID:	PB165828BS		Matrix:	Water	
Analytical Method:	SW8270ESIM		% 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 :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035852.D	1	12/23/24 13:29	12/26/24 14:19	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.35		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		116%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		85%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.49	*	55 - 111		122%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		98%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		119%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4430	7.257				
1146-65-2	Naphthalene-d8	10900	9.998				
15067-26-2	Acenaphthene-d10	6430	13.914				
1517-22-2	Phenanthrene-d10	13000	16.686				
1719-03-5	Chrysene-d12	9260	20.938				
1520-96-3	Perylene-d12	9150	23.023				

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:	12/18/24
Project:	CTO WE13	Date Received:	12/20/24
Client Sample ID:	RW10-MW01S-20241218MS	SDG No.:	P5374
Lab Sample ID:	P5376-08MS	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	990 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 :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035821.D	1	12/23/24 13:29	12/24/24 14:55	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		107%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		106%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		106%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		94%	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	3130	7.257				
1146-65-2	Naphthalene-d8	7400	9.998				
15067-26-2	Acenaphthene-d10	4430	13.914				
1517-22-2	Phenanthrene-d10	9040	16.686				
1719-03-5	Chrysene-d12	8800	20.947				
1520-96-3	Perylene-d12	9480	23.026				

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:	12/18/24
Project:	CTO WE13	Date Received:	12/20/24
Client Sample ID:	RW10-MW01S-20241218MSD	SDG No.:	P5374
Lab Sample ID:	P5376-09MSD	Matrix:	Water
Analytical Method:	SW8270ESIM	% 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 :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035822.D	1	12/23/24 13:29	12/24/24 15:31	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		108%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		108%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		128%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3190	7.257				
1146-65-2	Naphthalene-d8	7950	9.998				
15067-26-2	Acenaphthene-d10	4890	13.914				
1517-22-2	Phenanthrene-d10	10100	16.686				
1719-03-5	Chrysene-d12	9500	20.938				
1520-96-3	Perylene-d12	9990	23.02				

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-BN112724.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 27 23:03:24 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035350.D 0.2 =BN035351.D 0.4 =BN035352.D 0.8 =BN035353.D 1.6 =BN035354.D 3.2 =BN035355.D 5.0 =BN035356.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	0.406	0.417	0.376	0.380	0.392	0.357	0.348	0.382	6.52
3)	n-Nitrosodimet...	0.334	0.302	0.326	0.315	0.332	0.310	0.309	0.319	3.92
4) S	2-Fluorophenol	1.025	1.112	1.018	0.958	0.998	0.954	0.942	1.001	5.88
5) S	Phenol-d6	1.227	1.186	1.193	1.143	1.235	1.215	1.229	1.204	2.69
6)	bis(2-Chloroet...	1.035	1.021	0.992	0.993	1.051	0.997	0.991	1.012	2.39
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.227	0.232	0.235	0.248	0.257	0.251	0.261	0.244	5.31
9)	Naphthalene	1.062	1.029	1.047	1.032	1.096	1.049	1.070	1.055	2.22
10)	Hexachlorobuta...	0.245	0.242	0.247	0.241	0.255	0.236	0.238	0.243	2.60
11) SURR2	Methylnaphth...	0.591	0.603	0.619	0.615	0.659	0.639	0.656	0.626	4.16
12)	2-Methylnaphth...	0.724	0.716	0.740	0.747	0.795	0.771	0.795	0.755	4.25
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.273	0.258	0.257	0.268	0.293	0.311	0.328	0.284	9.67
15) S	2-Fluorobiphenyl	1.489	1.491	1.510	1.508	1.566	1.511	1.511	1.512	1.68
16)	Acenaphthylene	1.643	1.600	1.595	1.638	1.737	1.763	1.781	1.680	4.68
17)	Acenaphthene	1.121	1.084	1.086	1.108	1.145	1.122	1.140	1.115	2.17
18)	Fluorene	1.589	1.549	1.543	1.600	1.652	1.614	1.625	1.596	2.47
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.038	0.031	0.036	0.041	0.051			0.039	19.30
21)	4-Bromophenyl-...	0.226	0.218	0.226	0.233	0.249	0.242	0.244	0.234	4.85
22)	Hexachlorobenzene	0.265	0.266	0.273	0.276	0.288	0.278	0.277	0.275	2.82
23)	Atrazine	0.155	0.155	0.154	0.156	0.175	0.179	0.191	0.167	8.98
24)	Pentachlorophenol	0.140	0.090	0.095	0.103	0.121	0.136	0.150	0.120	19.86
25)	Phenanthrene	1.092	1.046	1.067	1.092	1.148	1.121	1.125	1.099	3.20
26)	Anthracene	0.964	0.923	0.940	0.973	1.050	1.042	1.064	0.994	5.76
27) SURR	Fluoranthene-d10	1.203	1.086	1.077	1.105	1.165	1.138	1.164	1.134	4.10
28)	Fluoranthene	1.538	1.396	1.416	1.456	1.539	1.497	1.526	1.481	3.99
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.583	1.445	1.475	1.443	1.519	1.440	1.431	1.477	3.79
31) S	Terphenyl-d14	0.832	0.777	0.791	0.771	0.812	0.772	0.769	0.789	3.08
32)	Benzo(a)anthra...	1.431	1.343	1.355	1.375	1.451	1.411	1.429	1.399	2.98
33)	Chrysene	1.463	1.452	1.441	1.415	1.487	1.422	1.420	1.443	1.84
34)	Bis(2-ethylhex...	0.710	0.558	0.516	0.505	0.520	0.516	0.544	0.553	12.96
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN112724.M

36)	Indeno(1,2,3-c...	1.411	1.489	1.532	1.554	1.660	1.615	1.685	1.564	6.22
37)	Benzo(b)fluora...	1.305	1.348	1.313	1.378	1.827	1.463	1.608	1.463	13.12
38)	Benzo(k)fluora...	1.444	1.376	1.402	1.419	1.527	1.447	1.468	1.440	3.39
39) C	Benzo(a)pyrene	1.204	1.156	1.146	1.171	1.256	1.232	1.271	1.205	4.11
40)	Dibenzo(a,h)an...	1.104	1.187	1.194	1.226	1.315	1.280	1.332	1.234	6.55
41)	Benzo(g,h,i)pe...	1.188	1.238	1.248	1.269	1.360	1.330	1.394	1.289	5.71

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/24/2024 08:59

Lab File ID: BN035811.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.541		-13.6	20.0
Fluoranthene-d10	1.134	0.953		-16.0	20.0
2-Fluorophenol	1.001	0.931		-7.0	20.0
Phenol-d6	1.204	1.289		7.1	20.0
Nitrobenzene-d5	0.244	0.285		16.8	20.0
2-Fluorobiphenyl	1.512	1.523		0.7	20.0
2,4,6-Tribromophenol	0.284	0.214		-24.6	20.0
Terphenyl-d14	0.789	0.804		1.9	20.0
1,4-Dioxane	0.382	0.457		19.6	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/24/2024 19:05

Lab File ID: BN035828.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.533		-14.9	50.0
Fluoranthene-d10	1.134	0.931		-17.9	50.0
2-Fluorophenol	1.001	0.895		-10.6	50.0
Phenol-d6	1.204	1.524		26.6	50.0
Nitrobenzene-d5	0.244	0.319		30.7	50.0
2-Fluorobiphenyl	1.512	1.565		3.5	50.0
2,4,6-Tribromophenol	0.284	0.194		-31.7	50.0
Terphenyl-d14	0.789	0.809		2.5	50.0
1,4-Dioxane	0.382	0.501		31.2	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/26/2024 09:58

Lab File ID: BN035845.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.545		-12.9	20.0
Fluoranthene-d10	1.134	0.991		-12.6	20.0
2-Fluorophenol	1.001	1.006		0.5	20.0
Phenol-d6	1.204	1.112		-7.6	20.0
Nitrobenzene-d5	0.244	0.298		22.1	20.0
2-Fluorobiphenyl	1.512	1.504		-0.5	20.0
2,4,6-Tribromophenol	0.284	0.248		-12.7	20.0
Terphenyl-d14	0.789	0.784		-0.6	20.0
1,4-Dioxane	0.382	0.405		6.0	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/26/2024 19:41

Lab File ID: BN035861.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.551		-12.0	50.0
Fluoranthene-d10	1.134	0.922		-18.7	50.0
2-Fluorophenol	1.001	0.931		-7.0	50.0
Phenol-d6	1.204	1.022		-15.1	50.0
Nitrobenzene-d5	0.244	0.306		25.4	50.0
2-Fluorobiphenyl	1.512	1.480		-2.1	50.0
2,4,6-Tribromophenol	0.284	0.225		-20.8	50.0
Terphenyl-d14	0.789	0.898		13.8	50.0
1,4-Dioxane	0.382	0.394		3.1	50.0

All other compounds must meet a minimum RRF of 0.010.