

LAB CHRONICLE

OrderID:	P4934	OrderDate:	11/20/2024 11:23:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L61,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4934-02	BPOW6-11-20241118	Water	SVOC-SIMGroup1	8270-Modified	11/18/24	11/21/24	11/25/24	11/20/24
P4934-03	BPOW6-7-20241118	Water	SVOC-SIMGroup1	8270-Modified	11/18/24	11/21/24	11/21/24	11/20/24
P4934-04	DUP01-20241118	Water	SVOC-SIMGroup1	8270-Modified	11/18/24	11/21/24	11/21/24	11/20/24
P4934-05	BPOW6-10-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/25/24	11/20/24
P4934-08	BPOW6-9-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/21/24	11/20/24
P4934-09	FB01-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/21/24	11/20/24
P4934-10	BPOW6-8-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/21/24	11/20/24
P4934-11	RB01-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/21/24	11/20/24
P4934-12	DUP02-20241119	Water	SVOC-SIMGroup1	8270-Modified	11/19/24	11/21/24	11/21/24	11/20/24



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

Hit Summary Sheet
SW-846

SDG No.: P4934
Client: Tetra Tech NUS, Inc.

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



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/18/24
Project:	CTO WE13		Date Received:	11/20/24
Client Sample ID:	BPOW6-11-20241118		SDG No.:	P4934
Lab Sample ID:	P4934-02		Matrix:	Water
Analytical Method:	SW8270SIM		% 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 :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035286.D	1	11/21/24 08:27	11/25/24 16:20	PB165150

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.21	U	0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.36		30 - 150		89%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.44		30 - 150		109%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.18	*	55 - 111		44%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.25		53 - 106		63%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.62	*	58 - 132		155%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3260	7.315				
1146-65-2	Naphthalene-d8	7990	10.063				
15067-26-2	Acenaphthene-d10	4580	13.976				
1517-22-2	Phenanthrene-d10	10700	16.734				
1719-03-5	Chrysene-d12	870	21.008				
1520-96-3	Perylene-d12	5340	23.078				

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:	11/18/24
Project:	CTO WE13	Date Received:	11/20/24
Client Sample ID:	BPOW6-7-20241118	SDG No.:	P4934
Lab Sample ID:	P4934-03	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
BN035228.D	1	11/21/24 08:27	11/21/24 18:48	PB165150

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	0.29		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		96%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.21	*	55 - 111		52%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.086	*	53 - 106		22%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.63	*	58 - 132		657%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2650	7.322				
1146-65-2	Naphthalene-d8	6010	10.073				
15067-26-2	Acenaphthene-d10	3780	13.987				
1517-22-2	Phenanthrene-d10	8220	16.746				
1719-03-5	Chrysene-d12	1600	21.008				
1520-96-3	Perylene-d12	7370	23.098				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/18/24	
Project:	CTO WE13		Date Received:	11/20/24	
Client Sample ID:	DUP01-20241118		SDG No.:	P4934	
Lab Sample ID:	P4934-04		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
BN035229.D	1	11/21/24 08:27	11/21/24 19:24	PB165150

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	0.28		30 - 150		69%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.18	*	55 - 111		45%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.061	*	53 - 106		15%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.81	*	58 - 132		702%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2750		7.322			
1146-65-2	Naphthalene-d8	6690		10.073			
15067-26-2	Acenaphthene-d10	4330		13.976			
1517-22-2	Phenanthrene-d10	8620		16.746			
1719-03-5	Chrysene-d12	1170		21.008			
1520-96-3	Perylene-d12	5970		23.095			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/19/24
Project:	CTO WE13	Date Received:	11/20/24
Client Sample ID:	BPOW6-10-20241119	SDG No.:	P4934
Lab Sample ID:	P4934-05	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
BN035287.D	1	11/21/24 08:27	11/25/24 16:56	PB165150

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	UM	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.41		30 - 150		101%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.19	*	55 - 111		48%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.27		53 - 106		68%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.76	*	58 - 132		189%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3380	7.315				
1146-65-2	Naphthalene-d8	8190	10.063				
15067-26-2	Acenaphthene-d10	4840	13.966				
1517-22-2	Phenanthrene-d10	10300	16.734				
1719-03-5	Chrysene-d12	824	21.008				
1520-96-3	Perylene-d12	5050	23.081				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/19/24
Project:	CTO WE13	Date Received:	11/20/24
Client Sample ID:	BPOW6-9-20241119	SDG No.:	P4934
Lab Sample ID:	P4934-08	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
BN035230.D	1	11/21/24 08:27	11/21/24 20:00	PB165150

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	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.19	*	55 - 111		47%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.072	*	53 - 106		18%	SPK: 0.4
1718-51-0	Terphenyl-d14	2.67	*	58 - 132		668%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2760	7.322				
1146-65-2	Naphthalene-d8	6460	10.073				
15067-26-2	Acenaphthene-d10	4130	13.976				
1517-22-2	Phenanthrene-d10	8430	16.746				
1719-03-5	Chrysene-d12	1400	21.008				
1520-96-3	Perylene-d12	6100	23.095				

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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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/19/24
Project:	CTO WE13		Date Received:	11/20/24
Client Sample ID:	FB01-20241119		SDG No.:	P4934
Lab Sample ID:	P4934-09		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
BN035231.D	1	11/21/24 08:27	11/21/24 20:36	PB165150

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	0.40		30 - 150		100%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.21	*	55 - 111		53%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.070	*	53 - 106		17%	SPK: 0.4
1718-51-0	Terphenyl-d14	4.71	*	58 - 132		1178%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2670		7.322			
1146-65-2	Naphthalene-d8	6150		10.073			
15067-26-2	Acenaphthene-d10	3900		13.976			
1517-22-2	Phenanthrene-d10	8030		16.746			
1719-03-5	Chrysene-d12	1050		21.008			
1520-96-3	Perylene-d12	5730		23.098			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/19/24
Project:	CTO WE13		Date Received:	11/20/24
Client Sample ID:	BPOW6-8-20241119		SDG No.:	P4934
Lab Sample ID:	P4934-10		Matrix:	Water
Analytical Method:	SW8270SIM		% 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 :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035233.D	1	11/21/24 08:27	11/21/24 21:49	PB165150

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	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		84%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.19	*	55 - 111		48%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.083	*	53 - 106		21%	SPK: 0.4
1718-51-0	Terphenyl-d14	3.68	*	58 - 132		919%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2750		7.322			
1146-65-2	Naphthalene-d8	6710		10.073			
15067-26-2	Acenaphthene-d10	4350		13.983			
1517-22-2	Phenanthrene-d10	9380		16.753			
1719-03-5	Chrysene-d12	1390		21.006			
1520-96-3	Perylene-d12	5770		23.096			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/19/24
Project:	CTO WE13		Date Received:	11/20/24
Client Sample ID:	RB01-20241119		SDG No.:	P4934
Lab Sample ID:	P4934-11		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
BN035232.D	1	11/21/24 08:27	11/21/24 21:12	PB165150

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	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		88%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.20	*	55 - 111		49%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.063	*	53 - 106		16%	SPK: 0.4
1718-51-0	Terphenyl-d14	4.19	*	58 - 132		1048%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2950		7.322			
1146-65-2	Naphthalene-d8	7120		10.073			
15067-26-2	Acenaphthene-d10	4660		13.976			
1517-22-2	Phenanthrene-d10	9460		16.746			
1719-03-5	Chrysene-d12	1180		21.008			
1520-96-3	Perylene-d12	6120		23.095			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/19/24
Project:	CTO WE13		Date Received:	11/20/24
Client Sample ID:	DUP02-20241119		SDG No.:	P4934
Lab Sample ID:	P4934-12		Matrix:	Water
Analytical Method:	SW8270SIM		% 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 :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035234.D	1	11/21/24 08:27	11/21/24 22:25	PB165150

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	0.27		30 - 150		68%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.19	*	55 - 111		47%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.063	*	53 - 106		16%	SPK: 0.4
1718-51-0	Terphenyl-d14	4.65	*	58 - 132		1163%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2770		7.322			
1146-65-2	Naphthalene-d8	6430		10.073			
15067-26-2	Acenaphthene-d10	3950		13.976			
1517-22-2	Phenanthrene-d10	8350		16.746			
1719-03-5	Chrysene-d12	946		21.008			
1520-96-3	Perylene-d12	7190		23.095			

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QC SUMMARY

Surrogate Summary

SW-846

SDG No.: P4934

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4934-02	BPOW6-11-20241118	2-Methylnaphthalene-d10	0.4	0.36	89		30	150
		Fluoranthene-d10	0.4	0.44	109		30	150
		Nitrobenzene-d5	0.4	0.18	44	*	55	111
		2-Fluorobiphenyl	0.4	0.25	63		53	106
		Terphenyl-d14	0.4	0.62	155	*	58	132
P4934-03	BPOW6-7-20241118	2-Methylnaphthalene-d10	0.4	0.29	74		30	150
		Fluoranthene-d10	0.4	0.39	96		30	150
		Nitrobenzene-d5	0.4	0.21	52	*	55	111
		2-Fluorobiphenyl	0.4	0.086	22	*	53	106
		Terphenyl-d14	0.4	2.63	657	*	58	132
P4934-04	DUP01-20241118	2-Methylnaphthalene-d10	0.4	0.28	69		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.18	45	*	55	111
		2-Fluorobiphenyl	0.4	0.061	15	*	53	106
		Terphenyl-d14	0.4	2.81	702	*	58	132
P4934-05	BPOW6-10-20241119	2-Methylnaphthalene-d10	0.4	0.41	101		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		Nitrobenzene-d5	0.4	0.19	48	*	55	111
		2-Fluorobiphenyl	0.4	0.27	68		53	106
		Terphenyl-d14	0.4	0.76	189	*	58	132
P4934-06MS	BPOW6-10-20241119MS	2-Methylnaphthalene-d10	0.4	0.39	97		30	150
		Fluoranthene-d10	0.4	0.38	95		30	150
		Nitrobenzene-d5	0.4	0.20	50	*	55	111
		2-Fluorobiphenyl	0.4	0.15	36	*	53	106
		Terphenyl-d14	0.4	0.77	192	*	58	132
P4934-07MSD	BPOW6-10-20241119MSD	2-Methylnaphthalene-d10	0.4	0.41	101		30	150
		Fluoranthene-d10	0.4	0.43	106		30	150
		Nitrobenzene-d5	0.4	0.21	51	*	55	111
		2-Fluorobiphenyl	0.4	0.26	65		53	106
		Terphenyl-d14	0.4	0.87	216	*	58	132
P4934-08	BPOW6-9-20241119	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.19	47	*	55	111
		2-Fluorobiphenyl	0.4	0.072	18	*	53	106
		Terphenyl-d14	0.4	2.67	668	*	58	132
P4934-09	FB01-20241119	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.40	100		30	150
		Nitrobenzene-d5	0.4	0.21	53	*	55	111
		2-Fluorobiphenyl	0.4	0.070	17	*	53	106
		Terphenyl-d14	0.4	4.71	1178	*	58	132
P4934-10	BPOW6-8-20241119	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.34	84		30	150
		Nitrobenzene-d5	0.4	0.19	48	*	55	111
		2-Fluorobiphenyl	0.4	0.083	21	*	53	106
		Terphenyl-d14	0.4	3.68	919	*	58	132
P4934-11	RB01-20241119	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.35	88		30	150
		Nitrobenzene-d5	0.4	0.20	49	*	55	111
		2-Fluorobiphenyl	0.4	0.063	16	*	53	106
		Terphenyl-d14	0.4	4.19	1048	*	58	132
P4934-12	DUP02-20241119	2-Methylnaphthalene-d10	0.4	0.27	68		30	150

Surrogate Summary

SW-846

SDG No.: P4934

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4934-12	DUP02-20241119	Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.19	47	*	55	111
		2-Fluorobiphenyl	0.4	0.063	16	*	53	106
		Terphenyl-d14	0.4	4.65	1163	*	58	132
PB165150BL	PB165150BL	2-Methylnaphthalene-d10	0.4	0.38	94		30	150
		Fluoranthene-d10	0.4	0.33	81		30	150
		Nitrobenzene-d5	0.4	0.20	50	*	55	111
		2-Fluorobiphenyl	0.4	0.73	183	*	53	106
PB165150BS	PB165150BS	Terphenyl-d14	0.4	0.32	79		58	132
		2-Methylnaphthalene-d10	0.4	0.48	121		30	150
		Fluoranthene-d10	0.4	0.35	87		30	150
		Nitrobenzene-d5	0.4	0.23	57		55	111
		2-Fluorobiphenyl	0.4	0.27	68		53	106
		Terphenyl-d14	0.4	0.46	115		58	132



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

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: P4934
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:	P4934-06MS	Client Sample ID:	BPOW6-10-20241119MS					DataFile:	BN035288.D		
1,4-Dioxane	0.4	0	0.20	ug/L	50	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: P4934
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:	P4934-07MSD	Client Sample ID:	BPOW6-10-20241119MSD					DataFile:	BN035289.D		
1,4-Dioxane	0.41	0	0.22	ug/L	54	*	8		70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4934

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN035290.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB165150BS	1,4-Dioxane	0.4	0.45	ug/L	113				70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165150BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4934

SAS No.: P4934 SDG NO.: P4934

Lab File ID: BN035285.D

Lab Sample ID: PB165150BL

Instrument ID: BNA_N

Date Extracted: 11/21/2024

Matrix: (soil/water) Water

Date Analyzed: 11/25/2024

Level: (low/med) LOW

Time Analyzed: 15:44

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BPOW6-11-20241118	P4934-02	BN035286.D	11/25/2024
BPOW6-10-20241119	P4934-05	BN035287.D	11/25/2024
BPOW6-10-20241119MS	P4934-06MS	BN035288.D	11/25/2024
BPOW6-10-20241119MSD	P4934-07MSD	BN035289.D	11/25/2024
PB165150BS	PB165150BS	BN035290.D	11/25/2024
BPOW6-7-20241118	P4934-03	BN035228.D	11/21/2024
DUP01-20241118	P4934-04	BN035229.D	11/21/2024
BPOW6-9-20241119	P4934-08	BN035230.D	11/21/2024
FB01-20241119	P4934-09	BN035231.D	11/21/2024
RB01-20241119	P4934-11	BN035232.D	11/21/2024
BPOW6-8-20241119	P4934-10	BN035233.D	11/21/2024
DUP02-20241119	P4934-12	BN035234.D	11/21/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4934

SDG NO.: P4934

Lab File ID: BN035061.D

DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.6
68	Less than 2.0% of mass 69	0.4 (1.4) 1
69	Mass 69 relative abundance	29.1
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	35.9
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	6.6
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	4.4
441	Present, but less than mass 443	9.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.2 (19) 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	BN035062.D	11/13/2024	12:40
SSTDICC0.2	SSTDICC0.2	BN035063.D	11/13/2024	13:16
SSTDICCC0.4	SSTDICCC0.4	BN035064.D	11/13/2024	13:52
SSTDICC0.8	SSTDICC0.8	BN035065.D	11/13/2024	14:28
SSTDICC1.6	SSTDICC1.6	BN035066.D	11/13/2024	15:04
SSTDICC3.2	SSTDICC3.2	BN035067.D	11/13/2024	15:39
SSTDICC5.0	SSTDICC5.0	BN035068.D	11/13/2024	16:15

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4934

SDG NO.: P4934

Lab File ID: BN035218.D

DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	23.4
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.3
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	6.5
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	11.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	12.7 (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
SSTDCCC0.4	SSTDCCC0.4	BN035219.D	11/21/2024	13:22
BPOW6-7-20241118	P4934-03	BN035228.D	11/21/2024	18:48
DUP01-20241118	P4934-04	BN035229.D	11/21/2024	19:24
BPOW6-9-20241119	P4934-08	BN035230.D	11/21/2024	20:00
FB01-20241119	P4934-09	BN035231.D	11/21/2024	20:36
RB01-20241119	P4934-11	BN035232.D	11/21/2024	21:12
BPOW6-8-20241119	P4934-10	BN035233.D	11/21/2024	21:49
DUP02-20241119	P4934-12	BN035234.D	11/21/2024	22:25
SSTDCCC0.4EC	SSTDCCC0.4	BN035235.D	11/21/2024	23:01

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4934

SDG NO.: P4934

Lab File ID: BN035276.D

DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_N

DFTPP Injection Time: 09:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.2
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.5
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40.9
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	6.7
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	10.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	12.3 (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
SSTDICC0.1	SSTDICC0.1	BN035277.D	11/25/2024	10:16
SSTDICC0.2	SSTDICC0.2	BN035278.D	11/25/2024	10:52
SSTDICCC0.4	SSTDICCC0.4	BN035279.D	11/25/2024	11:28
SSTDICC0.8	SSTDICC0.8	BN035280.D	11/25/2024	12:04
SSTDICC1.6	SSTDICC1.6	BN035281.D	11/25/2024	12:40
SSTDICC3.2	SSTDICC3.2	BN035282.D	11/25/2024	13:16
SSTDICC5.0	SSTDICC5.0	BN035283.D	11/25/2024	13:52
PB165150BL	PB165150BL	BN035285.D	11/25/2024	15:44
BPOW6-11-20241118	P4934-02	BN035286.D	11/25/2024	16:20
BPOW6-10-20241119	P4934-05	BN035287.D	11/25/2024	16:56
BPOW6-10-20241119MS	P4934-06MS	BN035288.D	11/25/2024	17:32
BPOW6-10-20241119MSD	P4934-07MSD	BN035289.D	11/25/2024	18:08
PB165150BS	PB165150BS	BN035290.D	11/25/2024	18:44
SSTDCCC0.4EC	SSTDCCC0.4	BN035291.D	11/25/2024	19:20

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4934 SAS No.: P4934 SDG NO.: P4934

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/21/2024

Lab File ID: BN035219.D Time Analyzed: 13:22

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	3553	7.329	8594	10.07	5839	13.99
UPPER LIMIT	7106	7.829	17188	10.573	11678	14.487
LOWER LIMIT	1776.5	6.829	4297	9.573	2919.5	13.487
EPA SAMPLE NO.						
01 BPOW6-7-20241118	2646	7.32	6014	10.07	3783	13.99
02 DUP01-20241118	2749	7.32	6688	10.07	4330	13.98
03 BPOW6-9-20241119	2756	7.32	6458	10.07	4128	13.98
04 FB01-20241119	2669	7.32	6148	10.07	3898	13.98
05 BPOW6-8-20241119	2753	7.32	6705	10.07	4351	13.98
06 RB01-20241119	2945	7.32	7124	10.07	4659	13.98
07 DUP02-20241119	2771	7.32	6431	10.07	3947	13.98

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.: P4934 SAS No.: P4934 SDG NO.: P4934

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/21/2024

Lab File ID: BN035219.D Time Analyzed: 13:22

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	13132	16.746	2179	21.008	7936	23.104
UPPER LIMIT	26264	17.246	4358	21.508	15872	23.604
LOWER LIMIT	6566	16.246	1089.5	20.508	3968	22.604
EPA SAMPLE NO.						
01 BPOW6-7-20241118	8215	16.75	1596	21.01	7371	23.10
02 DUP01-20241118	8619	16.75	1170	21.01	5974	23.10
03 BPOW6-9-20241119	8432	16.75	1400	21.01	6097	23.10
04 FB01-20241119	8027	16.75	1052 *	21.01	5733	23.10
05 BPOW6-8-20241119	9377	16.75	1394	21.01	5766	23.10
06 RB01-20241119	9464	16.75	1183	21.01	6123	23.10
07 DUP02-20241119	8351	16.75	946 *	21.01	7194	23.10

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.: P4934 SAS No.: P4934 SDG NO.: P4934

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/25/2024

Lab File ID: BN035279.D Time Analyzed: 11:28

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	2200	7.315	5326	10.06	2947	13.98
UPPER LIMIT	4400	7.815	10652	10.563	5894	14.476
LOWER LIMIT	1100	6.815	2663	9.563	1473.5	13.476
EPA SAMPLE NO.						
01 BPOW6-11-20241118	3259	7.32	7991	10.06	4583	13.98
02 BPOW6-10-20241119	3377	7.32	8188	10.06	4836	13.97
03 BPOW6-10-20241119MS	3628	7.32	8728	10.06	5209	13.97
04 BPOW6-10-20241119MSD	3339	7.32	8134	10.06	4891	13.97
05 PB165150BL	3592	7.32	7815	10.06	3951	13.98
06 PB165150BS	3630	7.32	8519	10.06	4791	13.97

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.: P4934 SAS No.: P4934 SDG NO.: P4934

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/25/2024

Lab File ID: BN035279.D Time Analyzed: 11:28

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	6895	16.734	586	21.008	4692	23.078
UPPER LIMIT	13790	17.234	1172	21.508	9384	23.578
LOWER LIMIT	3447.5	16.234	293	20.508	2346	22.578
EPA SAMPLE NO.						
01 BPOW6-11-20241118	10715	16.73	870	21.01	5339	23.08
02 BPOW6-10-20241119	10344	16.73	824	21.01	5052	23.08
03 BPOW6-10-20241119MS	11399	16.73	743	21.01	5613	23.08
04 BPOW6-10-20241119MSD	10884	16.74	706	21.01	5495	23.08
05 PB165150BL	8151	16.73	804	21.01	4507	23.08
06 PB165150BS	9614	16.73	730	21.01	5488	23.08

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:	PB165150BL		SDG No.:	P4934
Lab Sample ID:	PB165150BL		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
BN035285.D	1	11/21/24 08:27	11/25/24 15:44	PB165150

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	0.38		30 - 150		94%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		81%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.20	*	55 - 111		50%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.73	*	53 - 106		183%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.32		58 - 132		79%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3590	7.315				
1146-65-2	Naphthalene-d8	7820	10.063				
15067-26-2	Acenaphthene-d10	3950	13.976				
1517-22-2	Phenanthrene-d10	8150	16.734				
1719-03-5	Chrysene-d12	804	21.008				
1520-96-3	Perylene-d12	4510	23.081				

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:	PB165150BS		SDG No.:	P4934	
Lab Sample ID:	PB165150BS		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
BN035290.D	1	11/21/24 08:27	11/25/24 18:44	PB165150

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.45		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.48		30 - 150		121%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		87%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.23		55 - 111		57%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.27		53 - 106		68%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		115%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3630	7.315				
1146-65-2	Naphthalene-d8	8520	10.063				
15067-26-2	Acenaphthene-d10	4790	13.966				
1517-22-2	Phenanthrene-d10	9610	16.734				
1719-03-5	Chrysene-d12	730	21.008				
1520-96-3	Perylene-d12	5490	23.081				

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:	11/19/24
Project:	CTO WE13	Date Received:	11/20/24
Client Sample ID:	BPOW6-10-20241119MS	SDG No.:	P4934
Lab Sample ID:	P4934-06MS	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
BN035288.D	1	11/21/24 08:27	11/25/24 17:32	PB165150

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.39		30 - 150		97%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.38		30 - 150		95%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.20	*	55 - 111		50%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.15	*	53 - 106		36%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.77	*	58 - 132		192%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3630	7.315				
1146-65-2	Naphthalene-d8	8730	10.063				
15067-26-2	Acenaphthene-d10	5210	13.966				
1517-22-2	Phenanthrene-d10	11400	16.734				
1719-03-5	Chrysene-d12	743	21.008				
1520-96-3	Perylene-d12	5610	23.078				

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:	11/19/24
Project:	CTO WE13	Date Received:	11/20/24
Client Sample ID:	BPOW6-10-20241119MSD	SDG No.:	P4934
Lab Sample ID:	P4934-07MSD	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
BN035289.D	1	11/21/24 08:27	11/25/24 18:08	PB165150

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.41		30 - 150		101%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		106%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.21	*	55 - 111		51%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.26		53 - 106		65%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.87	*	58 - 132		216%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3340	7.315				
1146-65-2	Naphthalene-d8	8130	10.063				
15067-26-2	Acenaphthene-d10	4890	13.973				
1517-22-2	Phenanthrene-d10	10900	16.741				
1719-03-5	Chrysene-d12	706	21.006				
1520-96-3	Perylene-d12	5500	23.078				

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-BN111324.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 13 17:18:14 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035062.D 0.2 =BN035063.D 0.4 =BN035064.D 0.8 =BN035065.D 1.6 =BN035066.D 3.2 =BN035067.D 5.0 =BN035068.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	0.410	0.382	0.335	0.371	0.367	0.348	0.329	0.363	7.76
3)	n-Nitrosodimet...	0.366	0.328	0.326	0.360	0.347	0.321	0.322	0.339	5.51
4) S	2-Fluorophenol	1.073	1.039	0.949	1.086	1.034	0.966	0.961	1.015	5.54
5) S	Phenol-d6	1.264	1.279	1.159	1.355	1.318	1.255	1.282	1.273	4.79
6)	bis(2-Chloroet...	0.972	0.949	0.893	1.027	0.995	0.925	0.929	0.956	4.77
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.358	0.338	0.320	0.368	0.356	0.344	0.353	0.348	4.53
9)	Naphthalene	1.088	1.009	0.977	1.116	1.085	1.010	1.027	1.044	4.96
10)	Hexachlorobuta...	0.324	0.305	0.293	0.326	0.315	0.289	0.291	0.306	5.12
11) SURR2	Methylnaphth...	0.694	0.683	0.664	0.762	0.753	0.703	0.731	0.713	5.13
12)	2-Methylnaphth...	0.742	0.748	0.711	0.823	0.815	0.765	0.789	0.770	5.29
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.281	0.262	0.240	0.300	0.299	0.308	0.331	0.289	10.57
15) S	2-Fluorobiphenyl	1.701	1.576	1.460	1.735	1.687	1.599	1.614	1.624	5.73
16)	Acenaphthylene	1.715	1.616	1.488	1.822	1.775	1.756	1.795	1.709	6.93
17)	Acenaphthene	1.129	1.079	1.000	1.202	1.157	1.130	1.146	1.120	5.76
18)	Fluorene	1.704	1.591	1.463	1.755	1.708	1.656	1.659	1.648	5.86
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.068	0.067	0.073	0.087	0.088	0.095	0.105	0.083	17.50
21)	4-Bromophenyl-...	0.256	0.240	0.246	0.272	0.267	0.252	0.252	0.255	4.41
22)	Hexachlorobenzene	0.275	0.259	0.253	0.277	0.273	0.258	0.258	0.264	3.79
23)	Atrazine	0.227	0.227	0.217	0.244	0.238	0.223	0.225	0.229	3.95
24)	Pentachlorophenol	0.106	0.101	0.104	0.130	0.130	0.141	0.154	0.124	16.69
25)	Phenanthrene	1.069	1.013	1.004	1.115	1.096	1.034	1.036	1.053	3.97
26)	Anthracene	0.917	0.904	0.920	1.024	1.016	0.986	1.001	0.967	5.32
27) SURR	Fluoranthene-d10	1.196	1.178	1.169	1.288	1.284	1.222	1.240	1.225	3.91
28)	Fluoranthene	1.396	1.376	1.386	1.543	1.527	1.453	1.453	1.448	4.63
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.339	1.290	1.288	1.424	1.367	1.301	1.317	1.332	3.70
31) S	Terphenyl-d14	0.838	0.819	0.810	0.894	0.867	0.817	0.831	0.839	3.63
32)	Benzo(a)anthra...	1.421	1.368	1.328	1.464	1.416	1.355	1.396	1.393	3.31
33)	Chrysene	1.409	1.366	1.332	1.479	1.420	1.331	1.321	1.380	4.27
34)	Bis(2-ethylhex...	0.809	0.753	0.647	0.768	0.702	0.693	0.742	0.731	7.38
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN111324.M

36)	Indeno(1,2,3-c...	1.609	1.515	1.522	1.730	1.659	1.550	1.585	1.596	4.88
37)	Benzo(b)fluora...	1.326	1.272	1.279	1.439	1.418	1.327	1.359	1.346	4.77
38)	Benzo(k)fluora...	1.342	1.288	1.287	1.418	1.410	1.323	1.358	1.347	3.94
39) C	Benzo(a)pyrene	1.172	1.134	1.123	1.247	1.240	1.167	1.207	1.184	4.12
40)	Dibenzo(a,h)an...	1.248	1.195	1.210	1.375	1.322	1.235	1.265	1.264	5.06
41)	Benzo(g,h,i)pe...	1.380	1.288	1.286	1.452	1.386	1.294	1.328	1.345	4.71

(#) = Out of Range

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
 Method File : 8270-SIM-BN112524.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Nov 26 02:36:08 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035277.D 0.2 =BN035278.D 0.4 =BN035279.D 0.8 =BN035280.D 1.6 =BN035281.D 3.2 =BN035282.D 5.0 =BN035283.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	0.375	0.276	0.287	0.263	0.284	0.262	0.267	0.288	13.80
3)	n-Nitrosodimet...		0.279	0.284	0.306	0.313	0.299	0.306	0.298	4.56
4) S	2-Fluorophenol	0.858	0.793	0.789	0.725	0.730	0.678	0.718	0.756	8.00
5) S	Phenol-d6	1.194	1.125	1.105	1.022	1.025	0.963	0.955	1.056	8.40
6)	bis(2-Chloroet...	0.910	0.870	0.896	0.887	0.914	0.874	0.869	0.889	2.11
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.267	0.272	0.347	0.327	0.356	0.348	0.354	0.324	11.95
9)	Naphthalene	1.085	1.055	1.091	1.075	1.150	1.140	1.174	1.110	4.01
10)	Hexachlorobuta...	0.281	0.289	0.312	0.311	0.339	0.330	0.322	0.312	6.74
11) SURR	2-Methylnaphth...	0.561	0.531	0.539	0.527	0.566	0.580	0.616	0.560	5.61
12)	2-Methylnaphth...	0.690	0.680	0.680	0.675	0.748	0.782	0.829	0.726	8.37
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.174	0.174	0.180	0.186	0.213	0.230	0.272	0.204	17.97
15) S	2-Fluorobiphenyl	0.595	0.424	0.245	0.118	0.082	0.049	0.033	0.221	97.20
16)	Acenaphthylene	1.859	1.869	1.885	1.919	2.117	2.147	2.294	2.013	8.53
17)	Acenaphthene	1.144	1.158	1.176	1.194	1.341	1.386	1.473	1.267	10.33
18)	Fluorene	1.538	1.617	1.634	1.688	1.907	1.985	2.068	1.777	11.63
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...		0.027	0.034	0.039	0.048	0.056		0.041	27.63
21)	4-Bromophenyl-...	0.248	0.236	0.235	0.233	0.252	0.271	0.300	0.254	9.59
22)	Hexachlorobenzene	0.326	0.336	0.352	0.363	0.391	0.381	0.394	0.363	7.33
23)	Atrazine	0.091	0.095	0.100	0.100	0.114	0.117	0.133	0.107	13.85
24)	Pentachlorophenol		0.067	0.079	0.082	0.097	0.112		0.087	19.82
25)	Phenanthrene	1.121	1.103	1.131	1.162	1.271	1.364	1.448	1.229	11.00
26)	Anthracene	0.904	0.899	0.911	0.953	1.100	1.252	1.367	1.055	18.01
27) SURR	Fluoranthene-d10	0.953	0.963	0.967	0.998	1.120	1.224	1.269	1.070	12.46
28)	Fluoranthene	1.248	1.282	1.340	1.453	1.732	1.890	1.907	1.550	18.48
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.357	1.179	1.528	1.271	1.779	1.615		1.455 E1	15.55
31) S	Terphenyl-d14	0.628	0.551	0.726	0.608	0.862	0.764	1.035	0.739 E1	22.66
32)	Benzo(a)anthra...	1.299	1.119	1.382	1.150	1.641	1.439	1.714	1.392 E1	16.32
33)	Chrysene	1.299	1.119	1.382	1.150	1.641	1.439	1.714	1.392 E1	16.32
34)	Bis(2-ethylhex...		1.747	0.910	0.506	0.436	0.229		0.765	78.59
35) I	Perylene-d12	-----ISTD-----								

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

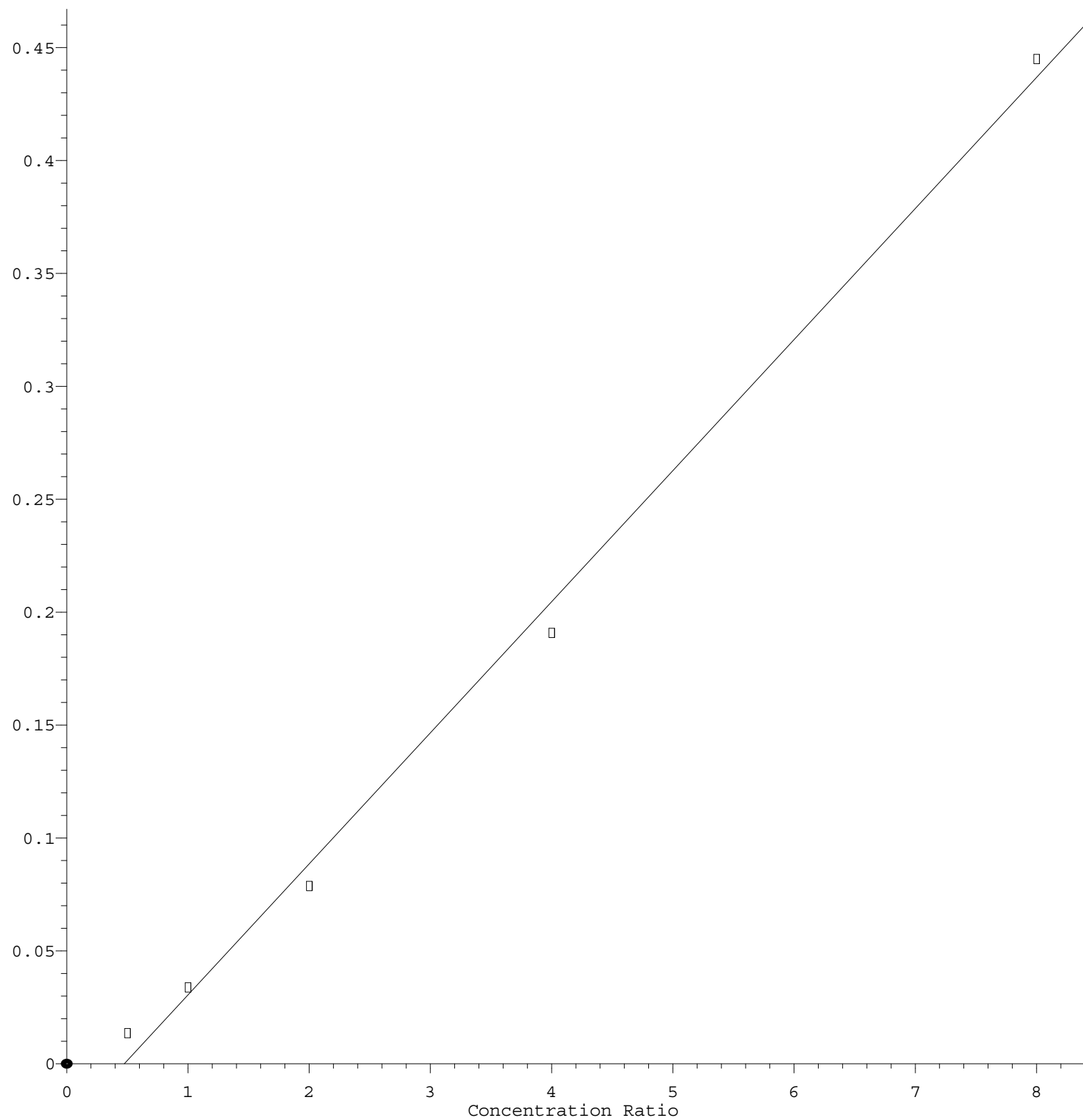
Method File : 8270-SIM-BN112524.M

36)	Indeno(1,2,3-c...	1.377	1.410	1.523	1.574	1.744	1.787	2.049	1.638	14.53
37)	Benzo(b)fluora...	1.505	1.552	1.452	1.714	1.877	2.005	2.064	1.738	14.25
38)	Benzo(k)fluora...	1.567	1.585	1.632	1.796	2.049	2.079	2.165	1.839	13.87
39) C	Benzo(a)pyrene	1.191	1.181	1.143	1.297	1.428	1.476	1.586	1.329	12.80
40)	Dibenzo(a,h)an...	0.961	1.028	1.107	1.202	1.353	1.402	1.612	1.238	18.62
41)	Benzo(g,h,i)pe...	1.296	1.311	1.241	1.412	1.508	1.517	1.737	1.432	11.97

(#) = Out of Range

4,6-Dinitro-2-methylphenol

Response Ratio



Response = $5.804 \times 10^{-2} \times \text{Amt} - 2.756 \times 10^{-2}$
Coef of Det (r^2) = 0.995953 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA N\Methods\8270-SIM-BN112524.M
Calibration Table Last Updated: Tue Nov 26 02:36:08 2024

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4934 SAS No.: P4934 SDG No.: P4934

Instrument ID: BNA_N Calibration Date/Time: 11/21/2024 13:22

Lab File ID: BN035219.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.604		-15.3	20.0
Fluoranthene-d10	1.225	0.956		-22.0	20.0
2-Fluorophenol	1.015	1.174		15.7	20.0
Phenol-d6	1.273	1.472		15.6	20.0
Nitrobenzene-d5	0.348	0.208		-40.2	20.0
2-Fluorobiphenyl	1.624	0.299		-81.6	20.0
2,4,6-Tribromophenol	0.289	0.331		14.5	20.0
Terphenyl-d14	0.839	3.629		332.5	20.0
1,4-Dioxane	0.363	0.403		11.0	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.: P4934 SAS No.: P4934 SDG No.: P4934

Instrument ID: BNA_N Calibration Date/Time: 11/21/2024 23:01

Lab File ID: BN035235.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.581		-18.5	50.0
Fluoranthene-d10	1.225	0.987		-19.4	50.0
2-Fluorophenol	1.015	1.087		7.1	50.0
Phenol-d6	1.273	1.273		0.0	50.0
Nitrobenzene-d5	0.348	0.189		-45.7	50.0
2-Fluorobiphenyl	1.624	0.255		-84.3	50.0
2,4,6-Tribromophenol	0.289	0.242		-16.3	50.0
Terphenyl-d14	0.839	6.857		717.3	50.0
1,4-Dioxane	0.363	0.381		5.0	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.: P4934 SAS No.: P4934 SDG No.: P4934

Instrument ID: BNA_N Calibration Date/Time: 11/25/2024 19:20

Lab File ID: BN035291.D Init. Calib. Date(s): 11/25/2024 11/25/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 10:16 13:52

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.560	0.573		2.3	50.0
Fluoranthene-d10	1.070	0.869		-18.8	50.0
2-Fluorophenol	0.756	0.966		27.8	50.0
Phenol-d6	1.056	1.244		17.8	50.0
Nitrobenzene-d5	0.324	0.194		-40.1	50.0
2-Fluorobiphenyl	0.221	0.144		-34.8	50.0
2,4,6-Tribromophenol	0.204	0.172		-15.7	50.0
Terphenyl-d14	7.392	8.425		14.0	50.0
1,4-Dioxane	0.288	0.380		31.9	50.0

All other compounds must meet a minimum RRF of 0.010.