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LAB CHRONICLE

OrderID:	P5021	**OrderDate:**	11/27/2024 10:41:00 AM
Client:	LiRo Engineers, Inc.	**Project:**	RFK Bridge
Contact:	Martin Wesolowski	**Location:**	L41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5021-01	**MW-06**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/02/24	
P5021-02	**MW-08**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/03/24	
P5021-03	**MW-10**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/03/24	
P5021-04	**MW-11**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/02/24	
P5021-05	**MW-13**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/02/24	
P5021-06	**MW-12**	**Water**			**11/26/24**			**11/27/24**
			SVOCMS Group1	8270E		11/27/24	12/03/24	

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Hit Summary Sheet
SW-846

SDG No.: P5021

Client: LiRo Engineers, Inc.

Sample ID	Client ID		Parameter	Concentration	C	MDL	RDL	Units
Client ID : MW-06								
P5021-01	MW-06	WATER	Acenaphthene	11.800		0.83	5.1	ug/L
P5021-01	MW-06	WATER	Fluorene	5.200		0.98	5.1	ug/L
P5021-01	MW-06	WATER	Anthracene	2.700	J	1.1	5.1	ug/L
P5021-01	MW-06	WATER	Fluoranthene	8.900		1.3	5.1	ug/L
P5021-01	MW-06	WATER	Pyrene	6.800	Q	1.1	5.1	ug/L
			Total Svoc :		**35.40**			
			Total Concentration:		**35.40**			

SAMPLE DATA

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-06	SDG No.:	P5021
Lab Sample ID:	P5021-01	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140691.D	1	11/27/24 08:40	12/02/24 16:21	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	11.8		0.83	5.10	ug/L
86-73-7	Fluorene	5.20		0.98	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.91	5.10	ug/L
120-12-7	Anthracene	2.70	J	1.10	5.10	ug/L
206-44-0	Fluoranthene	8.90		1.30	5.10	ug/L
129-00-0	Pyrene	6.80	Q	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.96	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.88	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	89.8		49 - 133	90%	SPK: 100
321-60-8	2-Fluorobiphenyl	83.0		52 - 132	83%	SPK: 100
1718-51-0	Terphenyl-d14	80.1		48 - 125	80%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	83000	6.869			
1146-65-2	Naphthalene-d8	310000	8.151			
15067-26-2	Acenaphthene-d10	187000	9.904			
1517-22-2	Phenanthrene-d10	344000	11.398			
1719-03-5	Chrysene-d12	220000	14.045			
1520-96-3	Perylene-d12	187000	15.551			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-06			SDG No.:	P5021
Lab Sample ID:	P5021-01			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140691.D	1	11/27/24 08:40	12/02/24 16:21	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-08	SDG No.:	P5021
Lab Sample ID:	P5021-02	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140710.D	1	11/27/24 08:40	12/03/24 14:59	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	5.10	U	0.82	5.10	ug/L
86-73-7	Fluorene	5.10	U	0.97	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.90	5.10	ug/L
120-12-7	Anthracene	5.10	U	1.10	5.10	ug/L
206-44-0	Fluoranthene	5.10	U	1.30	5.10	ug/L
129-00-0	Pyrene	5.10	UQ	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.95	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.87	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	75.9		49 - 133	76%	SPK: 100
321-60-8	2-Fluorobiphenyl	76.6		52 - 132	77%	SPK: 100
1718-51-0	Terphenyl-d14	80.7		48 - 125	81%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	83400	6.869			
1146-65-2	Naphthalene-d8	299000	8.151			
15067-26-2	Acenaphthene-d10	175000	9.904			
1517-22-2	Phenanthrene-d10	305000	11.398			
1719-03-5	Chrysene-d12	169000	14.051			
1520-96-3	Perylene-d12	158000	15.563			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-08			SDG No.:	P5021
Lab Sample ID:	P5021-02			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140710.D	1	11/27/24 08:40	12/03/24 14:59	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
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LOD = Limit of Detection
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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-10	SDG No.:	P5021
Lab Sample ID:	P5021-03	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140711.D	1	11/27/24 08:40	12/03/24 15:24	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	5.10	U	0.83	5.10	ug/L
86-73-7	Fluorene	5.10	U	0.98	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.91	5.10	ug/L
120-12-7	Anthracene	5.10	U	1.10	5.10	ug/L
206-44-0	Fluoranthene	5.10	U	1.30	5.10	ug/L
129-00-0	Pyrene	5.10	UQ	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.96	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.88	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	91.8		49 - 133	92%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.2		52 - 132	94%	SPK: 100
1718-51-0	Terphenyl-d14	93.7		48 - 125	94%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	71000	6.869			
1146-65-2	Naphthalene-d8	270000	8.151			
15067-26-2	Acenaphthene-d10	150000	9.904			
1517-22-2	Phenanthrene-d10	272000	11.398			
1719-03-5	Chrysene-d12	165000	14.051			
1520-96-3	Perylene-d12	152000	15.574			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-10			SDG No.:	P5021
Lab Sample ID:	P5021-03			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140711.D	1	11/27/24 08:40	12/03/24 15:24	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-11	SDG No.:	P5021
Lab Sample ID:	P5021-04	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140689.D	1	11/27/24 08:40	12/02/24 15:29	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	5.10	U	0.82	5.10	ug/L
86-73-7	Fluorene	5.10	U	0.97	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.90	5.10	ug/L
120-12-7	Anthracene	5.10	U	1.10	5.10	ug/L
206-44-0	Fluoranthene	5.10	U	1.30	5.10	ug/L
129-00-0	Pyrene	5.10	UQ	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.95	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.87	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	95.6		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.4		52 - 132	94%	SPK: 100
1718-51-0	Terphenyl-d14	91.0		48 - 125	91%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	79000	6.869			
1146-65-2	Naphthalene-d8	302000	8.151			
15067-26-2	Acenaphthene-d10	171000	9.904			
1517-22-2	Phenanthrene-d10	322000	11.398			
1719-03-5	Chrysene-d12	192000	14.051			
1520-96-3	Perylene-d12	157000	15.574			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-11			SDG No.:	P5021
Lab Sample ID:	P5021-04			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140689.D	1	11/27/24 08:40	12/02/24 15:29	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-13	SDG No.:	P5021
Lab Sample ID:	P5021-05	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140688.D	1	11/27/24 08:40	12/02/24 15:03	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	5.10	U	0.82	5.10	ug/L
86-73-7	Fluorene	5.10	U	0.97	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.90	5.10	ug/L
120-12-7	Anthracene	5.10	U	1.10	5.10	ug/L
206-44-0	Fluoranthene	5.10	U	1.30	5.10	ug/L
129-00-0	Pyrene	5.10	UQ	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.95	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.87	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	96.1		49 - 133	96%	SPK: 100
321-60-8	2-Fluorobiphenyl	94.0		52 - 132	94%	SPK: 100
1718-51-0	Terphenyl-d14	90.8		48 - 125	91%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82100	6.869			
1146-65-2	Naphthalene-d8	307000	8.151			
15067-26-2	Acenaphthene-d10	175000	9.904			
1517-22-2	Phenanthrene-d10	319000	11.398			
1719-03-5	Chrysene-d12	197000	14.051			
1520-96-3	Perylene-d12	158000	15.568			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-13			SDG No.:	P5021
Lab Sample ID:	P5021-05			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	990	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140688.D	1	11/27/24 08:40	12/02/24 15:03	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.	Date Collected:	11/26/24
Project:	RFK Bridge	Date Received:	11/27/24
Client Sample ID:	MW-12	SDG No.:	P5021
Lab Sample ID:	P5021-06	Matrix:	Water
Analytical Method:	SW8270	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
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
BF140712.D	1	11/27/24 08:40	12/03/24 15:50	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.10	UQ	1.10	5.10	ug/L
83-32-9	Acenaphthene	5.10	U	0.83	5.10	ug/L
86-73-7	Fluorene	5.10	U	0.98	5.10	ug/L
85-01-8	Phenanthrene	5.10	U	0.91	5.10	ug/L
120-12-7	Anthracene	5.10	U	1.10	5.10	ug/L
206-44-0	Fluoranthene	5.10	U	1.30	5.10	ug/L
129-00-0	Pyrene	5.10	UQ	1.10	5.10	ug/L
56-55-3	Benzo(a)anthracene	5.10	UQ	0.96	5.10	ug/L
218-01-9	Chrysene	5.10	UQ	0.88	5.10	ug/L
205-99-2	Benzo(b)fluoranthene	5.10	U	1.20	5.10	ug/L
207-08-9	Benzo(k)fluoranthene	5.10	UQ	1.20	5.10	ug/L
50-32-8	Benzo(a)pyrene	5.10	U	1.70	5.10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	U	1.00	5.10	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.10	U	1.20	5.10	ug/L
191-24-2	Benzo(g,h,i)perylene	5.10	U	1.20	5.10	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	93.5		49 - 133	93%	SPK: 100
321-60-8	2-Fluorobiphenyl	88.4		52 - 132	88%	SPK: 100
1718-51-0	Terphenyl-d14	97.2		48 - 125	97%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	67800	6.869			
1146-65-2	Naphthalene-d8	251000	8.151			
15067-26-2	Acenaphthene-d10	156000	9.904			
1517-22-2	Phenanthrene-d10	260000	11.398			
1719-03-5	Chrysene-d12	154000	14.051			
1520-96-3	Perylene-d12	131000	15.563			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	11/26/24
Project:	RFK Bridge			Date Received:	11/27/24
Client Sample ID:	MW-12			SDG No.:	P5021
Lab Sample ID:	P5021-06			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	980	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140712.D	1	11/27/24 08:40	12/03/24 15:50	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: P5021

Client: LiRo Engineers, Inc.

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P5021-01	MW-06	Nitrobenzene-d5	100	89.8	90		49	133
		2-Fluorobiphenyl	100	83.0	83		52	132
		Terphenyl-d14	100	80.1	80		48	125
P5021-02	MW-08	Nitrobenzene-d5	100	75.9	76		49	133
		2-Fluorobiphenyl	100	76.6	77		52	132
		Terphenyl-d14	100	80.7	81		48	125
P5021-03	MW-10	Nitrobenzene-d5	100	91.8	92		49	133
		2-Fluorobiphenyl	100	94.2	94		52	132
		Terphenyl-d14	100	93.7	94		48	125
P5021-04	MW-11	Nitrobenzene-d5	100	95.6	96		49	133
		2-Fluorobiphenyl	100	94.4	94		52	132
		Terphenyl-d14	100	91.0	91		48	125
P5021-05	MW-13	Nitrobenzene-d5	100	96.1	96		49	133
		2-Fluorobiphenyl	100	94.0	94		52	132
		Terphenyl-d14	100	90.8	91		48	125
P5021-06	MW-12	Nitrobenzene-d5	100	93.5	93		49	133
		2-Fluorobiphenyl	100	88.4	88		52	132
		Terphenyl-d14	100	97.2	97		48	125
PB165296BL	PB165296BL	Nitrobenzene-d5	100	94.5	94		49	133
		2-Fluorobiphenyl	100	96.0	96		52	132
		Terphenyl-d14	100	94.7	95		48	125
PB165296BS	PB165296BS	Nitrobenzene-d5	100	86.7	87		49	133
		2-Fluorobiphenyl	100	87.6	88		52	132
		Terphenyl-d14	100	87.5	87		48	125
PB165296BSD	PB165296BSD	Nitrobenzene-d5	100	96.7	97		49	133
		2-Fluorobiphenyl	100	95.4	95		52	132
		Terphenyl-d14	100	101	101		48	125

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5021

Client: LiRo Engineers, Inc.

Analytical Method: 8270E **DataFile:** BF140683.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165296BS	Acenaphthylene	50	49.7	ug/L	99				79	103	
	Acenaphthene	50	47.6	ug/L	95				59	113	
	Fluorene	50	47.3	ug/L	95				64	107	
	Phenanthrene	50	47.6	ug/L	95				62	109	
	Anthracene	50	49.7	ug/L	99				65	110	
	Fluoranthene	50	50.5	ug/L	101				64	110	
	Pyrene	50	46.0	ug/L	92				71	103	
	Benzo(a)anthracene	50	48.2	ug/L	96				62	107	
	Chrysene	50	48.5	ug/L	97				61	108	
	Benzo(b)fluoranthene	50	47.2	ug/L	94				77	113	
	Benzo(k)fluoranthene	50	48.9	ug/L	98				77	105	
	Benzo(a)pyrene	50	52.4	ug/L	105				72	131	
	Indeno(1,2,3-cd)pyrene	50	47.6	ug/L	95				72	105	
	Dibenz(a,h)anthracene	50	47.4	ug/L	95				78	115	
	Benzo(g,h,i)perylene	50	43.9	ug/L	88				75	118	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5021

Client: LiRo Engineers, Inc.

Analytical Method: 8270E **DataFile:** BF140684.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB165296BSD	Acenaphthylene	50	54.9	ug/L	110	10	*		79	103	20
	Acenaphthene	50	52.4	ug/L	105	10			59	113	20
	Fluorene	50	52.2	ug/L	104	10			64	107	20
	Phenanthrene	50	53.2	ug/L	106	11			62	109	20
	Anthracene	50	54.6	ug/L	109	9			65	110	20
	Fluoranthene	50	46.8	ug/L	94	8			64	110	20
	Pyrene	50	52.5	ug/L	105	13	*		71	103	20
	Benzo(a)anthracene	50	56.0	ug/L	112	15	*		62	107	20
	Chrysene	50	54.9	ug/L	110	12	*		61	108	20
	Benzo(b)fluoranthene	50	55.5	ug/L	111	16			77	113	20
	Benzo(k)fluoranthene	50	54.0	ug/L	108	10	*		77	105	20
	Benzo(a)pyrene	50	62.5	ug/L	125	18			72	131	20
	Indeno(1,2,3-cd)pyrene	50	49.9	ug/L	100	5			72	105	20
	Dibenz(a,h)anthracene	50	49.7	ug/L	99	5			78	115	20
	Benzo(g,h,i)perylene	50	49.2	ug/L	98	11			75	118	20

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165296BL

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG NO.: P5021

Lab File ID: BF140682.D Lab Sample ID: PB165296BL

Instrument ID: BNA_F Date Extracted: 11/27/2024

Matrix: (soil/water) Water Date Analyzed: 12/02/2024

Level: (low/med) LOW Time Analyzed: 10:57

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165296BS	PB165296BS	BF140683.D	12/02/2024
PB165296BSD	PB165296BSD	BF140684.D	12/02/2024
MW-13	P5021-05	BF140688.D	12/02/2024
MW-08	P5021-02	BF140710.D	12/03/2024
MW-10	P5021-03	BF140711.D	12/03/2024
MW-12	P5021-06	BF140712.D	12/03/2024
MW-06	P5021-01	BF140691.D	12/02/2024
MW-11	P5021-04	BF140689.D	12/02/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM SAS No.: P5021 SDG NO.: P5021

Lab File ID: BF140526.D DFTPP Injection Date: 11/21/2024

Instrument ID: BNA_F DFTPP Injection Time: 10:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	35.5
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	48
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	29.2
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	15.7
442	Greater than 50% of mass 198	99.8
443	15.0 - 24.0% of mass 442	18.1 (18.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC2.5	SSTDICC2.5	BF140528.D	11/21/2024	11:13
SSTDICC005	SSTDICC005	BF140529.D	11/21/2024	11:39
SSTDICC010	SSTDICC010	BF140530.D	11/21/2024	12:05
SSTDICC020	SSTDICC020	BF140531.D	11/21/2024	12:32
SSTDICCC040	SSTDICCC040	BF140532.D	11/21/2024	12:58
SSTDICC050	SSTDICC050	BF140533.D	11/21/2024	13:25
SSTDICC060	SSTDICC060	BF140534.D	11/21/2024	13:51
SSTDICC080	SSTDICC080	BF140535.D	11/21/2024	14:18

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM SAS No.: P5021 SDG NO.: P5021

Lab File ID: BF140680.D DFTPP Injection Date: 12/02/2024

Instrument ID: BNA_F DFTPP Injection Time: 09:05

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.7
68	Less than 2.0% of mass 69	0.7 (1.9) 1
69	Mass 69 relative abundance	35
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	45.9
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	29.2
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	15.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.4 (18.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BF140681.D	12/02/2024	10:22
PB165296BL	PB165296BL	BF140682.D	12/02/2024	10:57
PB165296BS	PB165296BS	BF140683.D	12/02/2024	11:23
PB165296BSD	PB165296BSD	BF140684.D	12/02/2024	11:49
MW-13	P5021-05	BF140688.D	12/02/2024	15:03
MW-11	P5021-04	BF140689.D	12/02/2024	15:29
MW-06	P5021-01	BF140691.D	12/02/2024	16:21

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM SAS No.: P5021 SDG NO.: P5021

Lab File ID: BF140701.D DFTPP Injection Date: 12/03/2024

Instrument ID: BNA_F DFTPP Injection Time: 10:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	35
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	46.7
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	6.6
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	15.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.7 (18.7) 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
SSTDCCC040	SSTDCCC040	BF140702.D	12/03/2024	11:24
MW-08	P5021-02	BF140710.D	12/03/2024	14:59
MW-10	P5021-03	BF140711.D	12/03/2024	15:24
MW-12	P5021-06	BF140712.D	12/03/2024	15:50

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG NO.: P5021

EPA Sample No.: SSTDCCC040 Date Analyzed: 12/02/2024

Lab File ID: BF140681.D Time Analyzed: 10:22

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

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	83338	6.869	303615	8.15	170338	9.91
	UPPER LIMIT	166676	7.369	607230	8.651	340676	10.41
	LOWER LIMIT	41669	6.369	151808	7.651	85169	9.41
	EPA SAMPLE NO.						
01	PB165296BL	73230	6.87	279727	8.15	158263	9.90
02	PB165296BS	84060	6.87	323501	8.15	181370	9.91
03	PB165296BSD	80604	6.87	308077	8.15	176945	9.91
04	MW-06	82990	6.87	310195	8.15	187284	9.90
05	MW-11	78955	6.87	302257	8.15	171220	9.90
06	MW-13	82130	6.87	307028	8.15	174760	9.90

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG NO.: P5021

EPA Sample No.: SSTDCCC040 Date Analyzed: 12/02/2024

Lab File ID: BF140681.D Time Analyzed: 10:22

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

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	321182	11.398	183379	14.063	159952	15.58
	UPPER LIMIT	642364	11.898	366758	14.563	319904	16.08
	LOWER LIMIT	160591	10.898	91689.5	13.563	79976	15.08
	EPA SAMPLE NO.						
01	PB165296BL	307927	11.40	198812	14.07	157266	15.60
02	PB165296BS	351850	11.40	225717	14.06	182835	15.58
03	PB165296BSD	364189	11.40	185704	14.06	166131	15.57
04	MW-06	343851	11.40	220062	14.05	186765	15.55
05	MW-11	321567	11.40	192319	14.05	156519	15.57
06	MW-13	319066	11.40	197195	14.05	158239	15.57

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG NO.: P5021

EPA Sample No.: SSTDCCC040 Date Analyzed: 12/03/2024

Lab File ID: BF140702.D Time Analyzed: 11:24

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

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	78577	6.869	287976	8.15	161859	9.91
	UPPER LIMIT	157154	7.369	575952	8.651	323718	10.41
	LOWER LIMIT	39288.5	6.369	143988	7.651	80929.5	9.41
	EPA SAMPLE NO.						
01	MW-08	83408	6.87	298688	8.15	174661	9.90
02	MW-10	70972	6.87	269570	8.15	149746	9.90
03	MW-12	67828	6.87	251382	8.15	155575	9.90

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG NO.: P5021

EPA Sample No.: SSTDCCC040 Date Analyzed: 12/03/2024

Lab File ID: BF140702.D Time Analyzed: 11:24

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

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	309121	11.398	178961	14.057	151018	15.568
	UPPER LIMIT	618242	11.898	357922	14.557	302036	16.068
	LOWER LIMIT	154561	10.898	89480.5	13.557	75509	15.068
	EPA SAMPLE NO.						
01	MW-08	305249	11.40	169161	14.05	157526	15.56
02	MW-10	271510	11.40	165452	14.05	151648	15.57
03	MW-12	260123	11.40	154428	14.05	130761	15.56

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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

Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BL			SDG No.:	P5021
Lab Sample ID:	PB165296BL			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units: mL		Final Vol:	1000 uL
Soil Aliquot Vol:		uL		Test:	SVOCMS Group1
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
BF140682.D	1	11/27/24 08:40	12/02/24 10:57	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	5.00	U	1.00	5.00	ug/L
83-32-9	Acenaphthene	5.00	U	0.81	5.00	ug/L
86-73-7	Fluorene	5.00	U	0.96	5.00	ug/L
85-01-8	Phenanthrene	5.00	U	0.89	5.00	ug/L
120-12-7	Anthracene	5.00	U	1.10	5.00	ug/L
206-44-0	Fluoranthene	5.00	U	1.30	5.00	ug/L
129-00-0	Pyrene	5.00	U	1.10	5.00	ug/L
56-55-3	Benzo(a)anthracene	5.00	U	0.94	5.00	ug/L
218-01-9	Chrysene	5.00	U	0.86	5.00	ug/L
205-99-2	Benzo(b)fluoranthene	5.00	U	1.10	5.00	ug/L
207-08-9	Benzo(k)fluoranthene	5.00	U	1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	5.00	U	1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	5.00	U	1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	5.00	U	1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	5.00	U	1.20	5.00	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	94.5		49 - 133	94%	SPK: 100
321-60-8	2-Fluorobiphenyl	96.0		52 - 132	96%	SPK: 100
1718-51-0	Terphenyl-d14	94.7		48 - 125	95%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	73200	6.869			
1146-65-2	Naphthalene-d8	280000	8.151			
15067-26-2	Acenaphthene-d10	158000	9.904			
1517-22-2	Phenanthrene-d10	308000	11.398			
1719-03-5	Chrysene-d12	199000	14.068			
1520-96-3	Perylene-d12	157000	15.598			

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Fax : 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BL			SDG No.:	P5021
Lab Sample ID:	PB165296BL			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140682.D	1	11/27/24 08:40	12/02/24 10:57	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BS			SDG No.:	P5021
Lab Sample ID:	PB165296BS			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140683.D	1	11/27/24 08:40	12/02/24 11:23	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	49.7		1.00	5.00	ug/L
83-32-9	Acenaphthene	47.6		0.81	5.00	ug/L
86-73-7	Fluorene	47.3		0.96	5.00	ug/L
85-01-8	Phenanthrene	47.6		0.89	5.00	ug/L
120-12-7	Anthracene	49.7		1.10	5.00	ug/L
206-44-0	Fluoranthene	50.5		1.30	5.00	ug/L
129-00-0	Pyrene	46.0		1.10	5.00	ug/L
56-55-3	Benzo(a)anthracene	48.2		0.94	5.00	ug/L
218-01-9	Chrysene	48.5		0.86	5.00	ug/L
205-99-2	Benzo(b)fluoranthene	47.2		1.10	5.00	ug/L
207-08-9	Benzo(k)fluoranthene	48.9		1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	52.4		1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	47.6		1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	47.4		1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	43.9		1.20	5.00	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	86.7		49 - 133	87%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.6		52 - 132	88%	SPK: 100
1718-51-0	Terphenyl-d14	87.5		48 - 125	87%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	84100	6.869			
1146-65-2	Naphthalene-d8	324000	8.151			
15067-26-2	Acenaphthene-d10	181000	9.91			
1517-22-2	Phenanthrene-d10	352000	11.398			
1719-03-5	Chrysene-d12	226000	14.063			
1520-96-3	Perylene-d12	183000	15.58			

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Fax : 908 789 8922

Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BS			SDG No.:	P5021
Lab Sample ID:	PB165296BS			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140683.D	1	11/27/24 08:40	12/02/24 11:23	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BSD			SDG No.:	P5021
Lab Sample ID:	PB165296BSD			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units: mL		Final Vol:	1000 uL
Soil Aliquot Vol:		uL		Test:	SVOCMS Group1
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
BF140684.D	1	11/27/24 08:40	12/02/24 11:49	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
208-96-8	Acenaphthylene	54.9		1.00	5.00	ug/L
83-32-9	Acenaphthene	52.4		0.81	5.00	ug/L
86-73-7	Fluorene	52.2		0.96	5.00	ug/L
85-01-8	Phenanthrene	53.2		0.89	5.00	ug/L
120-12-7	Anthracene	54.6		1.10	5.00	ug/L
206-44-0	Fluoranthene	46.8		1.30	5.00	ug/L
129-00-0	Pyrene	52.5		1.10	5.00	ug/L
56-55-3	Benzo(a)anthracene	56.0		0.94	5.00	ug/L
218-01-9	Chrysene	54.9		0.86	5.00	ug/L
205-99-2	Benzo(b)fluoranthene	55.5		1.10	5.00	ug/L
207-08-9	Benzo(k)fluoranthene	54.0		1.20	5.00	ug/L
50-32-8	Benzo(a)pyrene	62.5		1.70	5.00	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	49.9		1.00	5.00	ug/L
53-70-3	Dibenzo(a,h)anthracene	49.7		1.20	5.00	ug/L
191-24-2	Benzo(g,h,i)perylene	49.2		1.20	5.00	ug/L
SURROGATES						
4165-60-0	Nitrobenzene-d5	96.7		49 - 133	97%	SPK: 100
321-60-8	2-Fluorobiphenyl	95.4		52 - 132	95%	SPK: 100
1718-51-0	Terphenyl-d14	101		48 - 125	101%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	80600	6.869			
1146-65-2	Naphthalene-d8	308000	8.151			
15067-26-2	Acenaphthene-d10	177000	9.91			
1517-22-2	Phenanthrene-d10	364000	11.398			
1719-03-5	Chrysene-d12	186000	14.057			
1520-96-3	Perylene-d12	166000	15.574			

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Report of Analysis

Client:	LiRo Engineers, Inc.			Date Collected:	
Project:	RFK Bridge			Date Received:	
Client Sample ID:	PB165296BSD			SDG No.:	P5021
Lab Sample ID:	PB165296BSD			Matrix:	Water
Analytical Method:	SW8270			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
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
BF140684.D	1	11/27/24 08:40	12/02/24 11:49	PB165296

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

CALIBRATION SUMMARY

Response Factor Report BNA_F

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Nov 21 15:23:48 2024
Response Via : Initial Calibration

Calibration Files
2.5 =BF140528.D 5 =BF140529.D 10 =BF140530.D 20 =BF140531.D 40 =BF140532.D 50 =BF140533.D 60 =BF140534.D 80 =BF1405
35.D

		Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------							
2)		1,4-Dioxane		0.501	0.502	0.576	0.489	0.452	0.454	0.477	0.493	8.46
3)		Pyridine		0.981	1.019	1.121	1.192	1.062	1.087	1.128	1.084	6.54
4)		n-Nitrosodimet...		0.616	0.611	0.661	0.648	0.632	0.632	0.660	0.637	3.15
5)	S	2-Fluorophenol		1.261	1.233	1.202	1.174	1.117	1.127	1.091	1.172	5.40
6)		Aniline		1.159	1.195	1.133	1.251	1.042	1.020	0.835	1.091	12.73
7)	S	Phenol-d6		1.729	1.617	1.559	1.602	1.465	1.470	1.407	1.550	7.14
8)		2-Chlorophenol		1.385	1.328	1.278	1.283	1.201	1.208	1.145	1.261	6.51
9)		Benzaldehyde			1.007	0.970	0.738	0.752	0.635		0.820	19.55
10)	C	Phenol		1.723	1.648	1.620	1.667	1.514	1.490	1.417	1.583	6.98
11)		bis(2-Chloroet...		1.292	1.242	1.214	1.246	1.146	1.200	1.138	1.211	4.56
12)		1,3-Dichlorobe...		1.600	1.493	1.433	1.399	1.345	1.361	1.288	1.417	7.31
13)	C	1,4-Dichlorobe...		1.613	1.501	1.456	1.428	1.358	1.372	1.314	1.435	7.04
14)		1,2-Dichlorobe...		1.503	1.434	1.375	1.355	1.268	1.266	1.210	1.344	7.71
15)		Benzyl Alcohol		1.234	1.174	1.161	1.224	1.113	1.090	1.048	1.149	5.98
16)		2,2'-oxybis(1-...		1.650	1.480	1.434	1.463	1.335	1.377	1.276	1.431	8.43
17)		2-Methylphenol		1.121	1.034	1.033	1.042	0.956	0.959	0.922	1.009	6.74
18)		Hexachloroethane		0.598	0.545	0.549	0.537	0.514	0.510	0.499	0.536	6.17
19)	P	n-Nitroso-di-n...	0.972	1.002	0.949	0.916	0.946	0.856	0.857	0.829	0.916	6.82
20)		3+4-Methylphenols		1.495	1.362	1.305	1.347	1.211	1.209	1.154	1.298	8.98
21)	I	Naphthalene-d8	----------	ISTD	----------							
22)		Acetophenone		0.536	0.511	0.494	0.481	0.463	0.460	0.468	0.488	5.75
23)	S	Nitrobenzene-d5		0.409	0.403	0.395	0.392	0.377	0.377	0.383	0.391	3.21
24)		Nitrobenzene		0.439	0.409	0.409	0.401	0.388	0.391	0.392	0.404	4.35
25)		Isophorone		0.694	0.654	0.657	0.662	0.629	0.634	0.635	0.652	3.44
26)	C	2-Nitrophenol		0.178	0.172	0.185	0.180	0.178	0.180	0.180	0.179	2.17
27)		2,4-Dimethylph...		0.221	0.214	0.213	0.224	0.204	0.207	0.218	0.214	3.40
28)		bis(2-Chloroet...		0.428	0.408	0.403	0.397	0.378	0.384	0.383	0.397	4.37
29)	C	2,4-Dichloroph...		0.301	0.291	0.290	0.282	0.277	0.274	0.271	0.284	3.82
30)		1,2,4-Trichlor...		0.342	0.338	0.332	0.317	0.317	0.312	0.312	0.324	3.91
31)		Naphthalene		1.116	1.075	1.062	1.013	0.993	0.983	0.970	1.030	5.32
32)		Benzoic acid			0.101	0.126	0.177	0.185	0.192	0.202	0.164	24.72
33)		4-Chloroaniline		0.308	0.318	0.309	0.325	0.303	0.308	0.289	0.308	3.71
34)	C	Hexachlorobuta...		0.227	0.225	0.219	0.212	0.209	0.207	0.204	0.215	4.15
35)		Caprolactam		0.091	0.091	0.091	0.090	0.085	0.085	0.083	0.088	3.99
36)	C	4-Chloro-3-met...		0.348	0.318	0.317	0.327	0.307	0.307	0.301	0.318	4.95
37)		2-Methylnaphth...		0.724	0.680	0.669	0.650	0.623	0.620	0.615	0.654	6.09
38)		1-Methylnaphth...		0.707	0.665	0.659	0.638	0.611	0.608	0.601	0.641	5.98

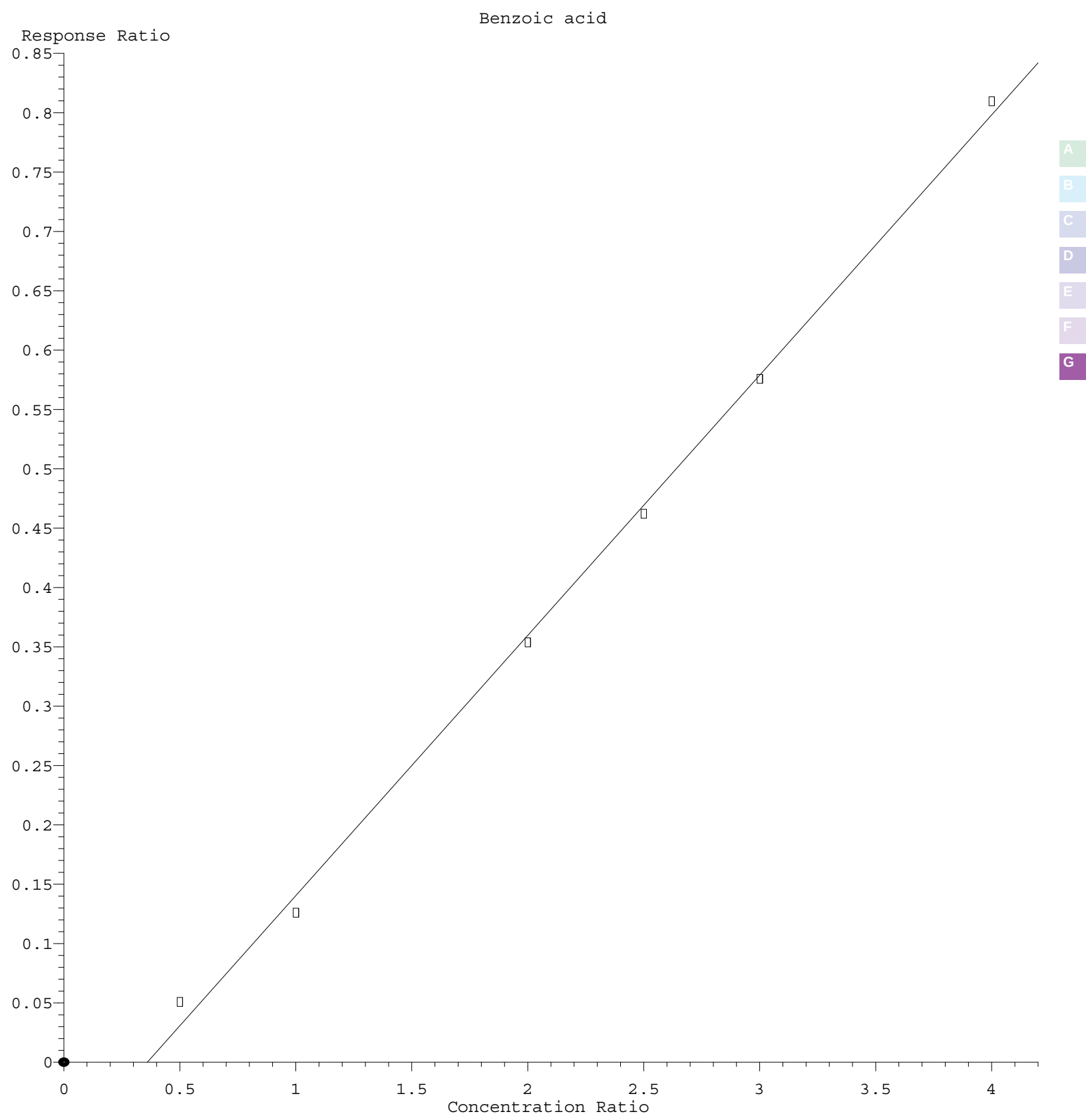
Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

39)	I	Acenaphthene-d10	----------ISTD----------								
40)		1,2,4,5-Tetrac...	0.635	0.604	0.606	0.563	0.561	0.565	0.565	0.586	5.02
41)	P	Hexachlorocycl...		0.055	0.090	0.114	0.121	0.129	0.133	0.107	27.80
42)	S	2,4,6-Tribromo...	0.222	0.209	0.220	0.216	0.210	0.210	0.211	0.214	2.52
43)	C	2,4,6-Trichlor...	0.384	0.358	0.375	0.366	0.364	0.360	0.365	0.367	2.45
44)		2,4,5-Trichlor...	0.402	0.396	0.410	0.404	0.390	0.397	0.392	0.399	1.80
45)	S	2-Fluorobiphenyl	1.550	1.402	1.423	1.291	1.255	1.240	1.235	1.342	8.90
46)		1,1'-Biphenyl	1.666	1.530	1.563	1.447	1.427	1.418	1.403	1.493	6.50
47)		2-Chloronaphth...	1.251	1.145	1.162	1.106	1.082	1.084	1.091	1.131	5.39
48)		2-Nitroaniline	0.367	0.351	0.379	0.367	0.363	0.357	0.359	0.363	2.50
49)		Acenaphthylene	1.890	1.765	1.808	1.662	1.628	1.623	1.590	1.710	6.58
50)		Dimethylphthalate	1.455	1.329	1.346	1.299	1.267	1.270	1.254	1.317	5.28
51)		2,6-Dinitrotol...	0.314	0.299	0.307	0.301	0.291	0.293	0.286	0.299	3.24
52)	C	Acenaphthene	1.182	1.110	1.134	1.063	1.052	1.037	1.026	1.086	5.29
53)		3-Nitroaniline	0.307	0.297	0.309	0.300	0.289	0.281	0.262	0.292	5.71
54)	P	2,4-Dinitrophenol		0.057	0.089	0.140	0.145	0.150	0.154	0.122	32.70
55)		Dibenzofuran	1.898	1.739	1.739	1.622	1.559	1.531	1.509	1.657	8.53
56)	P	4-Nitrophenol		0.160	0.195	0.207	0.212	0.214	0.208	0.199	10.31
57)		2,4-Dinitrotol...	0.403	0.403	0.416	0.404	0.386	0.389	0.379	0.397	3.24
58)		Fluorene	1.509	1.409	1.399	1.295	1.263	1.224	1.210	1.330	8.37
59)		2,3,4,6-Tetrac...	0.307	0.296	0.308	0.312	0.305	0.305	0.312	0.306	1.72
60)		Diethylphthalate	1.495	1.375	1.393	1.311	1.292	1.268	1.234	1.338	6.66
61)		4-Chlorophenyl...	0.739	0.682	0.685	0.639	0.619	0.605	0.599	0.653	7.90
62)		4-Nitroaniline	0.307	0.301	0.315	0.312	0.310	0.309	0.291	0.306	2.67
63)		Azobenzene	1.406	1.320	1.320	1.235	1.205	1.206	1.179	1.267	6.55
64)	I	Phenanthrene-d10	----------ISTD----------								
65)		4,6-Dinitro-2-...		0.073	0.090	0.110	0.110	0.117	0.113	0.102	16.74
66)	c	n-Nitrosodiphe...	0.632	0.618	0.597	0.578	0.577	0.580	0.558	0.591	4.39
67)		4-Bromophenyl-...	0.218	0.215	0.206	0.200	0.200	0.205	0.198	0.206	3.79
68)		Hexachlorobenzene	0.257	0.240	0.239	0.233	0.232	0.236	0.232	0.238	3.65
69)		Atrazine	0.181	0.171	0.131	0.140	0.147	0.196	0.198	0.166	16.37
70)	C	Pentachlorophenol		0.071	0.090	0.116	0.115	0.121	0.118	0.105	19.24
71)		Phenanthrene	1.074	1.020	0.970	0.944	0.925	0.916	0.881	0.961	6.87
72)		Anthracene	1.038	0.994	0.958	0.925	0.905	0.904	0.859	0.940	6.47
73)		Carbazole	1.004	0.949	0.930	0.889	0.876	0.862	0.821	0.905	6.75
74)		Di-n-butylphth...	1.144	1.075	1.074	1.023	1.021	1.007	0.967	1.044	5.56
75)	C	Fluoranthene	1.186	1.111	1.114	1.014	0.999	0.962	0.921	1.044	9.11
76)	I	Chrysene-d12	----------ISTD----------								
77)		Benzidine	0.268	0.422	0.296	0.575	0.734	1.025	0.751	0.581	47.31
78)		Pyrene	1.905	1.801	1.897	1.853	1.791	1.898	1.799	1.849	2.79
79)	S	Terphenyl-d14	1.351	1.254	1.308	1.283	1.228	1.313	1.254	1.284	3.31
80)		Butylbenzylpht...	0.676	0.644	0.694	0.679	0.655	0.674	0.641	0.666	2.96
81)		Benzo(a)anthra...	1.409	1.319	1.379	1.286	1.295	1.338	1.242	1.324	4.30
82)		3,3'-Dichlorob...	0.375	0.383	0.393	0.413	0.406	0.419	0.394	0.397	4.03
83)		Chrysene	1.354	1.263	1.218	1.201	1.137	1.173	1.128	1.211	6.50
84)		Bis(2-ethylhex...	0.904	0.828	0.862	0.833	0.824	0.841	0.797	0.841	4.00
85)	c	Di-n-octyl pht...	1.198	1.133	1.147	1.132	1.147	1.169	1.121	1.150	2.29

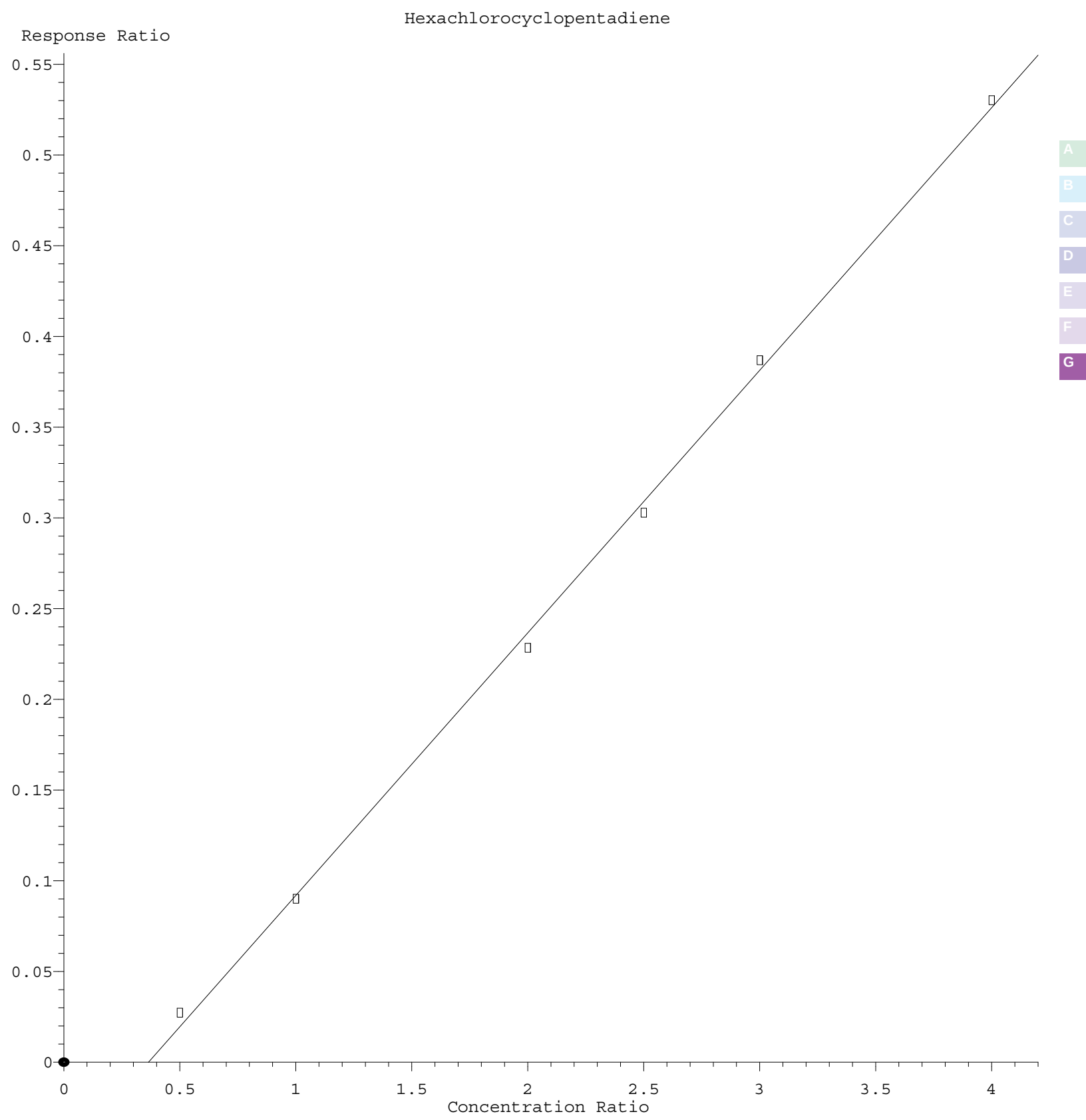
Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF112124.M

86)	I	Perylene-d12	----------ISTD----------							
87)		Indeno(1,2,3-c...	1.209	1.283	1.299	1.304	1.306	1.409	1.313	1.303	4.51
88)		Benzo(b)fluora...	1.347	1.256	1.380	1.186	1.248	1.207	1.168	1.256	6.41
89)		Benzo(k)fluora...	1.243	1.236	1.059	1.101	1.022	1.055	0.980	1.099	9.34
90)	C	Benzo(a)pyrene	1.062	1.050	1.063	1.007	0.998	1.014	0.957	1.021	3.81
91)		Dibenzo(a,h)an...	1.015	1.038	1.063	1.068	1.075	1.149	1.064	1.067	3.90
92)		Benzo(g,h,i)pe...	1.033	1.090	1.078	1.085	1.094	1.161	1.083	1.089	3.48

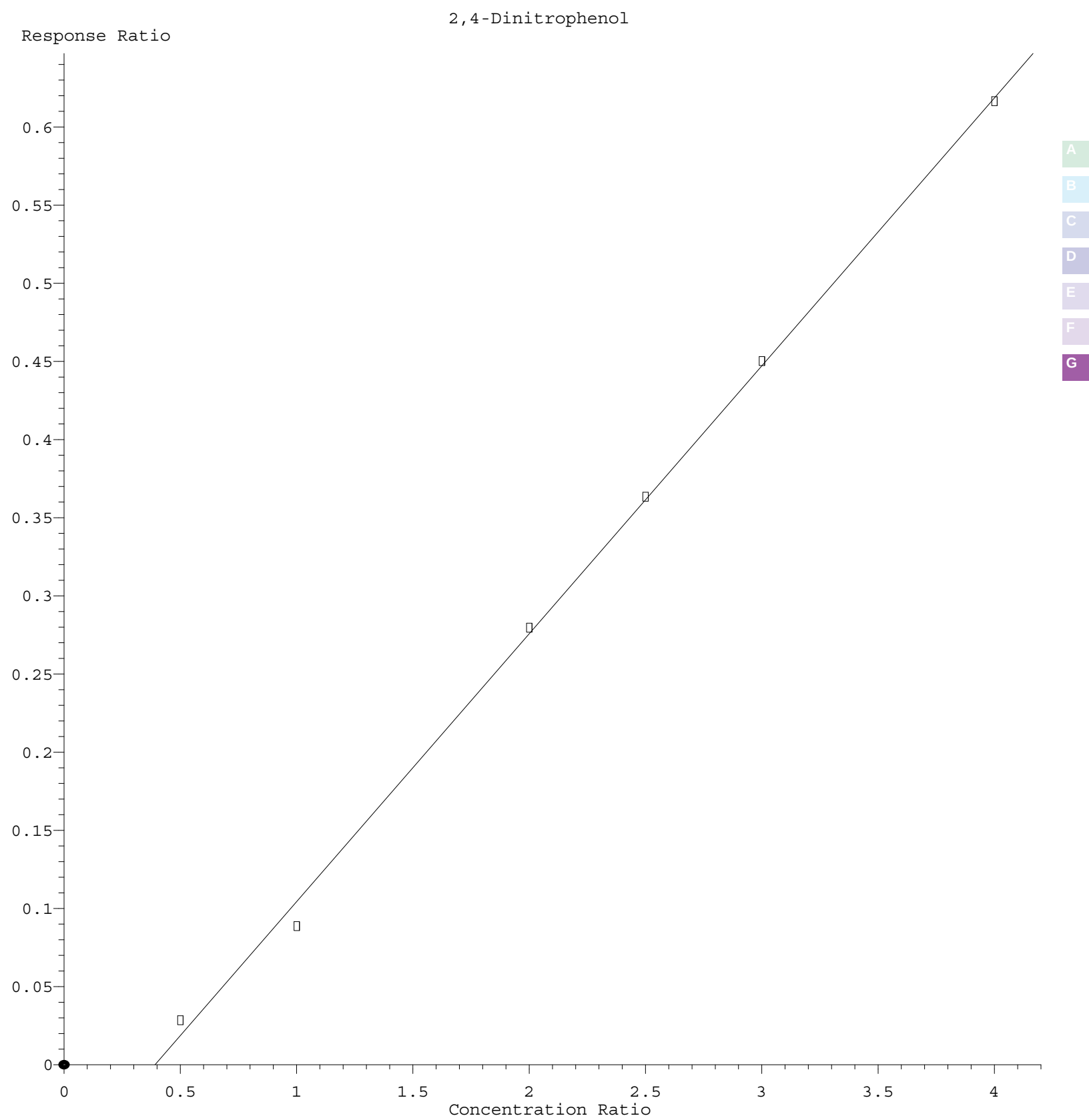
(#) = Out of Range



Response = 2.193e-001 * Amt - 7.887e-002
Coef of Det (r^2) = 0.997922 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024



Response = 1.448e-001 * Amt - 5.280e-002
Coef of Det (r^2) = 0.998763 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024



Response = 1.715e-001 * Amt - 6.708e-002
Coef of Det (r^2) = 0.998475 Curve Fit: Linear
Method Name: Z:\svoasrv\HPCHEM1\BNA F\Methods\8270-BF112124.M
Calibration Table Last Updated: Thu Nov 21 15:23:48 2024

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG No.: P5021

Instrument ID: BNA_F Calibration Date/Time: 12/02/2024 10:22

Lab File ID: BF140681.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.172	1.148		-2.0	
Phenol-d6	1.550	1.511		-2.5	
Nitrobenzene-d5	0.391	0.381		-2.6	
2-Fluorobiphenyl	1.342	1.303		-2.9	
Acenaphthylene	1.710	1.674		-2.1	
Acenaphthene	1.086	1.073		-1.2	20.0
Fluorene	1.330	1.312		-1.4	
2,4,6-Tribromophenol	0.214	0.211		-1.4	
Phenanthrene	0.961	0.947		-1.5	
Anthracene	0.940	0.935		-0.5	
Fluoranthene	1.044	1.053		0.9	20.0
Pyrene	1.849	1.875		1.4	
Terphenyl-d14	1.284	1.262		-1.7	
Benzo(a)anthracene	1.324	1.320		-0.3	
Chrysene	1.211	1.200		-0.9	
Benzo(b)fluoranthene	1.256	1.244		-1.0	
Benzo(k)fluoranthene	1.099	1.048		-4.6	
Benzo(a)pyrene	1.021	1.000		-2.1	20.0
Indeno(1,2,3-cd)pyrene	1.303	1.265		-2.9	
Dibenzo(a,h)anthracene	1.067	1.025		-3.9	
Benzo(g,h,i)perylene	1.089	1.064		-2.3	

All other compounds must meet a minimum RRF of 0.010.

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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: LIRO01

Lab Code: CHEM Case No.: P5021 SAS No.: P5021 SDG No.: P5021

Instrument ID: BNA_F Calibration Date/Time: 12/03/2024 11:24

Lab File ID: BF140702.D Init. Calib. Date(s): 11/21/2024 11/21/2024

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:13 14:18

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.172	1.135		-3.2	
Phenol-d6	1.550	1.481		-4.5	
Nitrobenzene-d5	0.391	0.372		-4.9	
2-Fluorobiphenyl	1.342	1.315		-2.0	
Acenaphthylene	1.710	1.655		-3.2	
Acenaphthene	1.086	1.031		-5.1	20.0
Fluorene	1.330	1.306		-1.8	
2,4,6-Tribromophenol	0.214	0.209		-2.3	
Phenanthrene	0.961	0.921		-4.2	
Anthracene	0.940	0.906		-3.6	
Fluoranthene	1.044	1.025		-1.8	20.0
Pyrene	1.849	1.786		-3.4	
Terphenyl-d14	1.284	1.295		0.9	
Benzo(a)anthracene	1.324	1.330		0.5	
Chrysene	1.211	1.133		-6.4	
Benzo(b)fluoranthene	1.256	1.178		-6.2	
Benzo(k)fluoranthene	1.099	1.085		-1.3	
Benzo(a)pyrene	1.021	0.989		-3.1	20.0
Indeno(1,2,3-cd)pyrene	1.303	1.389		6.6	
Dibenzo(a,h)anthracene	1.067	1.149		7.7	
Benzo(g,h,i)perylene	1.089	1.195		9.7	

All other compounds must meet a minimum RRF of 0.010.