

LAB CHRONICLE

OrderID:	Q2436	OrderDate:	6/26/2025 3:41:00 PM
Client:	CDM Smith	Project:	South River WM Replacement
Contact:	Marcie Ann Encinas	Location:	D51,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2436-01	TP-70	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	06/30/25	06/26/25
Q2436-02	TP-69	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	06/30/25	06/26/25
Q2436-03	TP-85	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	07/01/25	06/26/25
Q2436-04	TP-86	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	06/30/25	06/26/25
Q2436-05	TP-84	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	06/30/25	06/26/25
Q2436-06	TP-83	SOIL	SVOC-TCL BNA -20	8270E	06/25/25	06/27/25	06/30/25	06/26/25
Q2436-07	TP-87	SOIL	SVOC-TCL BNA -20	8270E	06/26/25	06/27/25	06/30/25	06/26/25
Q2436-08	TP-100	SOIL	SVOC-TCL BNA -20	8270E	06/26/25	06/27/25	06/30/25	06/26/25
Q2436-09	TP-99	SOIL	SVOC-TCL BNA -20	8270E	06/26/25	06/27/25	06/30/25	06/26/25
Q2436-10	TP-82	SOIL	SVOC-TCL BNA -20	8270E	06/26/25	06/27/25	06/30/25	06/26/25

Hit Summary Sheet SW-846

SDG No.: Q2436
Client: CDM Smith

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2436-06	TP-83	SOIL	17-Pentatriacontene	*	150.000	J 0	0	ug/Kg
Q2436-06	TP-83	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	210.000	AB 0	0	ug/Kg
Q2436-06	TP-83	SOIL	Benzophenone	*	160.000	J 0	0	ug/Kg
Q2436-06	TP-83	SOIL	Heptadecyl trifluoroacetate	*	79.300	J 0	0	ug/Kg
Total Tics :				599.30				
Total Concentration:				599.30				
Client ID : TP-87								
Q2436-07	TP-87	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	230.000	AB 0	0	ug/Kg
Q2436-07	TP-87	SOIL	Benzophenone	*	170.000	J 0	0	ug/Kg
Q2436-07	TP-87	SOIL	Pentafluoropropionic acid, heptad	*	120.000	J 0	0	ug/Kg
Total Tics :				520.00				
Total Concentration:				520.00				
Client ID : TP-100								
Q2436-08	TP-100	SOIL	Fluoranthene		78.800	J 35	200	ug/Kg
Q2436-08	TP-100	SOIL	Pyrene		81.800	J 42	200	ug/Kg
Q2436-08	TP-100	SOIL	Bis(2-ethylhexyl)phthalate		150.000	J 69	200	ug/Kg
Total Svoc :				310.60				
Q2436-08	TP-100	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	220.000	AB 0	0	ug/Kg
Q2436-08	TP-100	SOIL	Benzophenone	*	130.000	J 0	0	ug/Kg
Q2436-08	TP-100	SOIL	Trifluoroacetoxy hexadecane	*	100.000	J 0	0	ug/Kg
Q2436-08	TP-100	SOIL	n-Hexadecanoic acid	*	89.800	J 0	0	ug/Kg
Total Tics :				539.80				
Total Concentration:				850.40				
Client ID : TP-99								
Q2436-09	TP-99	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	230.000	AB 0	0	ug/Kg
Q2436-09	TP-99	SOIL	Benzophenone	*	130.000	J 0	0	ug/Kg
Q2436-09	TP-99	SOIL	Tricosyl heptafluorobutyrate	*	120.000	J 0	0	ug/Kg
Total Tics :				480.00				
Total Concentration:				480.00				
Client ID : TP-82								
Q2436-10	TP-82	SOIL	2-Pentanone, 4-hydroxy-4-methyl	*	220.000	AB 0	0	ug/Kg
Q2436-10	TP-82	SOIL	Benzophenone	*	120.000	J 0	0	ug/Kg
Q2436-10	TP-82	SOIL	Octadecyl trifluoroacetate	*	120.000	J 0	0	ug/Kg
Q2436-10	TP-82	SOIL	Triphenylphosphine oxide	*	130.000	J 0	0	ug/Kg
Total Tics :				590.00				
Total Concentration:				590.00				



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-70	SDG No.:	Q2436
Lab Sample ID:	Q2436-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82.1
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142923.D	1	06/27/25 11:20	06/30/25 19:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	190	U	190	400	ug/Kg
108-95-2	Phenol	26.8	U	26.8	210	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	29.5	U	29.5	210	ug/Kg
95-57-8	2-Chlorophenol	29.6	U	29.6	210	ug/Kg
95-48-7	2-Methylphenol	36.3	U	36.3	210	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	45.6	U	45.6	210	ug/Kg
98-86-2	Acetophenone	35.8	U	35.8	210	ug/Kg
65794-96-9	3+4-Methylphenols	49.9	U	49.9	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	57.6	U	57.6	97.2	ug/Kg
67-72-1	Hexachloroethane	21.4	U	21.4	210	ug/Kg
98-95-3	Nitrobenzene	22.2	U	22.2	210	ug/Kg
78-59-1	Isophorone	39.8	U	39.8	210	ug/Kg
88-75-5	2-Nitrophenol	70.7	U	70.7	210	ug/Kg
105-67-9	2,4-Dimethylphenol	78.7	U	78.7	210	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	37.4	U	37.4	210	ug/Kg
120-83-2	2,4-Dichlorophenol	34.4	U	34.4	210	ug/Kg
91-20-3	Naphthalene	27.6	U	27.6	210	ug/Kg
106-47-8	4-Chloroaniline	43.0	U	43.0	210	ug/Kg
87-68-3	Hexachlorobutadiene	30.7	U	30.7	210	ug/Kg
105-60-2	Caprolactam	63.3	U	63.3	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	34.9	U	34.9	210	ug/Kg
91-57-6	2-Methylnaphthalene	31.1	U	31.1	210	ug/Kg
77-47-4	Hexachlorocyclopentadiene	140	U	140	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	24.1	U	24.1	210	ug/Kg
95-95-4	2,4,5-Trichlorophenol	35.4	U	35.4	210	ug/Kg
92-52-4	1,1-Biphenyl	26.5	U	26.5	210	ug/Kg
91-58-7	2-Chloronaphthalene	27.3	U	27.3	210	ug/Kg
88-74-4	2-Nitroaniline	58.4	U	58.4	210	ug/Kg
131-11-3	Dimethylphthalate	32.9	U	32.9	210	ug/Kg

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Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
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Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142923.D	1	06/27/25 11:20	06/30/25 19:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	35.1	U	35.1	210	ug/Kg
606-20-2	2,6-Dinitrotoluene	40.8	U	40.8	210	ug/Kg
99-09-2	3-Nitroaniline	55.9	U	55.9	210	ug/Kg
83-32-9	Acenaphthene	25.9	U	25.9	210	ug/Kg
51-28-5	2,4-Dinitrophenol	280	U	280	400	ug/Kg
100-02-7	4-Nitrophenol	130	U	130	400	ug/Kg
132-64-9	Dibenzofuran	27.6	U	27.6	210	ug/Kg
121-14-2	2,4-Dinitrotoluene	60.9	U	60.9	210	ug/Kg
84-66-2	Diethylphthalate	34.4	U	34.4	210	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	32.4	U	32.4	210	ug/Kg
86-73-7	Fluorene	30.7	U	30.7	210	ug/Kg
100-01-6	4-Nitroaniline	78.0	U	78.0	210	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	130	U	130	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	40.0	U	40.0	210	ug/Kg
101-55-3	4-Bromophenyl-phenylether	33.8	U	33.8	210	ug/Kg
118-74-1	Hexachlorobenzene	30.7	U	30.7	210	ug/Kg
1912-24-9	Atrazine	41.3	U	41.3	210	ug/Kg
87-86-5	Pentachlorophenol	62.3	U	62.3	400	ug/Kg
85-01-8	Phenanthrene	25.4	U	25.4	210	ug/Kg
120-12-7	Anthracene	40.5	U	40.5	210	ug/Kg
86-74-8	Carbazole	37.9	U	37.9	210	ug/Kg
84-74-2	Di-n-butylphthalate	58.2	U	58.2	210	ug/Kg
206-44-0	Fluoranthene	36.4	U	36.4	210	ug/Kg
129-00-0	Pyrene	43.7	U	43.7	210	ug/Kg
85-68-7	Butylbenzylphthalate	86.7	U	86.7	210	ug/Kg
91-94-1	3,3-Dichlorobenzidine	44.6	U	44.6	400	ug/Kg
56-55-3	Benzo(a)anthracene	27.9	U	27.9	210	ug/Kg
218-01-9	Chrysene	24.2	U	24.2	210	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	71.9	U	71.9	210	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	110	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	23.1	U	23.1	210	ug/Kg

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Lab Sample ID:	Q2436-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82.1
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142923.D	1	06/27/25 11:20	06/30/25 19:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	27.2	U	27.2	210	ug/Kg
50-32-8	Benzo(a)pyrene	35.8	U	35.8	210	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.4	U	35.4	210	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	33.3	U	33.3	210	ug/Kg
191-24-2	Benzo(g,h,i)perylene	31.2	U	31.2	210	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	31.1	U	31.1	210	ug/Kg
123-91-1	1,4-Dioxane	54.9	U	54.9	210	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	33.3	U	33.3	210	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	64.5		18 - 112	43%	SPK: 150
13127-88-3	Phenol-d6	64.0		15 - 107	43%	SPK: 150
4165-60-0	Nitrobenzene-d5	40.1		18 - 107	40%	SPK: 100
321-60-8	2-Fluorobiphenyl	37.5		20 - 109	37%	SPK: 100
118-79-6	2,4,6-Tribromophenol	55.2		10 - 116	37%	SPK: 150
1718-51-0	Terphenyl-d14	32.2		10 - 105	32%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	67100	6.869
1146-65-2	Naphthalene-d8	252000	8.157
15067-26-2	Acenaphthene-d10	129000	9.91
1517-22-2	Phenanthrene-d10	206000	11.404
1719-03-5	Chrysene-d12	122000	14.045
1520-96-3	Perylene-d12	140000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	190	AB	5.08	ug/Kg
000119-61-9	Benzophenone	130	J	10.6	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-70	SDG No.:	Q2436
Lab Sample ID:	Q2436-01	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82.1
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup :
		N	PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142923.D	1	06/27/25 11:20	06/30/25 19:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-69	SDG No.:	Q2436
Lab Sample ID:	Q2436-02	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142932.D	1	06/27/25 11:20	06/30/25 23:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	190	U	190	400	ug/Kg
108-95-2	Phenol	26.9	U	26.9	210	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	29.6	U	29.6	210	ug/Kg
95-57-8	2-Chlorophenol	29.7	U	29.7	210	ug/Kg
95-48-7	2-Methylphenol	36.4	U	36.4	210	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	45.7	U	45.7	210	ug/Kg
98-86-2	Acetophenone	36.0	U	36.0	210	ug/Kg
65794-96-9	3+4-Methylphenols	50.1	U	50.1	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	57.8	U	57.8	97.5	ug/Kg
67-72-1	Hexachloroethane	21.4	U	21.4	210	ug/Kg
98-95-3	Nitrobenzene	22.3	U	22.3	210	ug/Kg
78-59-1	Isophorone	40.0	U	40.0	210	ug/Kg
88-75-5	2-Nitrophenol	70.9	U	70.9	210	ug/Kg
105-67-9	2,4-Dimethylphenol	79.0	U	79.0	210	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	37.5	U	37.5	210	ug/Kg
120-83-2	2,4-Dichlorophenol	34.5	U	34.5	210	ug/Kg
91-20-3	Naphthalene	27.7	U	27.7	210	ug/Kg
106-47-8	4-Chloroaniline	43.1	U	43.1	210	ug/Kg
87-68-3	Hexachlorobutadiene	30.8	U	30.8	210	ug/Kg
105-60-2	Caprolactam	63.5	U	63.5	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	35.0	U	35.0	210	ug/Kg
91-57-6	2-Methylnaphthalene	31.2	U	31.2	210	ug/Kg
77-47-4	Hexachlorocyclopentadiene	140	U	140	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	24.1	U	24.1	210	ug/Kg
95-95-4	2,4,5-Trichlorophenol	35.5	U	35.5	210	ug/Kg
92-52-4	1,1-Biphenyl	26.6	U	26.6	210	ug/Kg
91-58-7	2-Chloronaphthalene	27.4	U	27.4	210	ug/Kg
88-74-4	2-Nitroaniline	58.6	U	58.6	210	ug/Kg
131-11-3	Dimethylphthalate	33.0	U	33.0	210	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-69	SDG No.:	Q2436
Lab Sample ID:	Q2436-02	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142932.D	1	06/27/25 11:20	06/30/25 23:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	35.2	U	35.2	210	ug/Kg
606-20-2	2,6-Dinitrotoluene	40.9	U	40.9	210	ug/Kg
99-09-2	3-Nitroaniline	56.1	U	56.1	210	ug/Kg
83-32-9	Acenaphthene	26.0	U	26.0	210	ug/Kg
51-28-5	2,4-Dinitrophenol	280	U	280	400	ug/Kg
100-02-7	4-Nitrophenol	130	U	130	400	ug/Kg
132-64-9	Dibenzofuran	27.7	U	27.7	210	ug/Kg
121-14-2	2,4-Dinitrotoluene	61.1	U	61.1	210	ug/Kg
84-66-2	Diethylphthalate	34.5	U	34.5	210	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	32.5	U	32.5	210	ug/Kg
86-73-7	Fluorene	30.8	U	30.8	210	ug/Kg
100-01-6	4-Nitroaniline	78.2	U	78.2	210	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	130	U	130	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	40.1	U	40.1	210	ug/Kg
101-55-3	4-Bromophenyl-phenylether	33.9	U	33.9	210	ug/Kg
118-74-1	Hexachlorobenzene	30.8	U	30.8	210	ug/Kg
1912-24-9	Atrazine	41.4	U	41.4	210	ug/Kg
87-86-5	Pentachlorophenol	62.5	U	62.5	400	ug/Kg
85-01-8	Phenanthrene	25.5	U	25.5	210	ug/Kg
120-12-7	Anthracene	40.6	U	40.6	210	ug/Kg
86-74-8	Carbazole	38.0	U	38.0	210	ug/Kg
84-74-2	Di-n-butylphthalate	58.4	U	58.4	210	ug/Kg
206-44-0	Fluoranthene	36.6	U	36.6	210	ug/Kg
129-00-0	Pyrene	43.9	U	43.9	210	ug/Kg
85-68-7	Butylbenzylphthalate	87.0	U	87.0	210	ug/Kg
91-94-1	3,3-Dichlorobenzidine	44.7	U	44.7	400	ug/Kg
56-55-3	Benzo(a)anthracene	28.0	U	28.0	210	ug/Kg
218-01-9	Chrysene	24.3	U	24.3	210	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	72.1	U	72.1	210	ug/Kg
117-84-0	Di-n-octyl phthalate	110	U	110	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	23.2	U	23.2	210	ug/Kg

Report of Analysis

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Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-69	SDG No.:	Q2436
Lab Sample ID:	Q2436-02	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142932.D	1	06/27/25 11:20	06/30/25 23:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	27.3	U	27.3	210	ug/Kg
50-32-8	Benzo(a)pyrene	36.0	U	36.0	210	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	35.5	U	35.5	210	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	33.4	U	33.4	210	ug/Kg
191-24-2	Benzo(g,h,i)perylene	31.3	U	31.3	210	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	31.2	U	31.2	210	ug/Kg
123-91-1	1,4-Dioxane	55.1	U	55.1	210	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	33.4	U	33.4	210	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	68.7		18 - 112	46%	SPK: 150
13127-88-3	Phenol-d6	67.3		15 - 107	45%	SPK: 150
4165-60-0	Nitrobenzene-d5	44.1		18 - 107	44%	SPK: 100
321-60-8	2-Fluorobiphenyl	43.9		20 - 109	44%	SPK: 100
118-79-6	2,4,6-Tribromophenol	65.1		10 - 116	43%	SPK: 150
1718-51-0	Terphenyl-d14	30.0		10 - 105	30%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	85300	6.875			
1146-65-2	Naphthalene-d8	304000	8.157			
15067-26-2	Acenaphthene-d10	144000	9.916			
1517-22-2	Phenanthrene-d10	214000	11.404			
1719-03-5	Chrysene-d12	178000	14.045			
1520-96-3	Perylene-d12	203000	15.539			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	210	AB		5.09	ug/Kg
000119-61-9	Benzophenone	110	J		10.6	ug/Kg
000506-51-4	n-Tetracosanol-1	120	J		13.9	ug/Kg
000791-28-6	Triphenylphosphine oxide	110	J		14.1	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-69	SDG No.:	Q2436
Lab Sample ID:	Q2436-02	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	82
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142932.D	1	06/27/25 11:20	06/30/25 23:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-85	SDG No.:	Q2436
Lab Sample ID:	Q2436-03	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142933.D	1	06/27/25 11:20	07/01/25 00:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	180	U	180	390	ug/Kg
108-95-2	Phenol	25.9	U	25.9	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	28.5	U	28.5	200	ug/Kg
95-57-8	2-Chlorophenol	28.6	U	28.6	200	ug/Kg
95-48-7	2-Methylphenol	35.1	U	35.1	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	44.0	U	44.0	200	ug/Kg
98-86-2	Acetophenone	34.6	U	34.6	200	ug/Kg
65794-96-9	3+4-Methylphenols	48.2	U	48.2	390	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	55.6	U	55.6	93.9	ug/Kg
67-72-1	Hexachloroethane	20.7	U	20.7	200	ug/Kg
98-95-3	Nitrobenzene	21.5	U	21.5	200	ug/Kg
78-59-1	Isophorone	38.5	U	38.5	200	ug/Kg
88-75-5	2-Nitrophenol	68.3	U	68.3	200	ug/Kg
105-67-9	2,4-Dimethylphenol	76.0	U	76.0	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	36.1	U	36.1	200	ug/Kg
120-83-2	2,4-Dichlorophenol	33.2	U	33.2	200	ug/Kg
91-20-3	Naphthalene	26.6	U	26.6	200	ug/Kg
106-47-8	4-Chloroaniline	41.5	U	41.5	200	ug/Kg
87-68-3	Hexachlorobutadiene	29.7	U	29.7	200	ug/Kg
105-60-2	Caprolactam	61.1	U	61.1	390	ug/Kg
59-50-7	4-Chloro-3-methylphenol	33.7	U	33.7	200	ug/Kg
91-57-6	2-Methylnaphthalene	30.0	U	30.0	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	140	U	140	390	ug/Kg
88-06-2	2,4,6-Trichlorophenol	23.2	U	23.2	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	34.1	U	34.1	200	ug/Kg
92-52-4	1,1-Biphenyl	25.6	U	25.6	200	ug/Kg
91-58-7	2-Chloronaphthalene	26.4	U	26.4	200	ug/Kg
88-74-4	2-Nitroaniline	56.4	U	56.4	200	ug/Kg
131-11-3	Dimethylphthalate	31.8	U	31.8	200	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-85	SDG No.:	Q2436
Lab Sample ID:	Q2436-03	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142933.D	1	06/27/25 11:20	07/01/25 00:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	33.9	U	33.9	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	39.4	U	39.4	200	ug/Kg
99-09-2	3-Nitroaniline	54.0	U	54.0	200	ug/Kg
83-32-9	Acenaphthene	25.0	U	25.0	200	ug/Kg
51-28-5	2,4-Dinitrophenol	270	U	270	390	ug/Kg
100-02-7	4-Nitrophenol	130	U	130	390	ug/Kg
132-64-9	Dibenzofuran	26.6	U	26.6	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	58.8	U	58.8	200	ug/Kg
84-66-2	Diethylphthalate	33.2	U	33.2	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	31.3	U	31.3	200	ug/Kg
86-73-7	Fluorene	29.7	U	29.7	200	ug/Kg
100-01-6	4-Nitroaniline	75.3	U	75.3	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	120	U	120	390	ug/Kg
86-30-6	n-Nitrosodiphenylamine	38.6	U	38.6	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	32.6	U	32.6	200	ug/Kg
118-74-1	Hexachlorobenzene	29.7	U	29.7	200	ug/Kg
1912-24-9	Atrazine	39.9	U	39.9	200	ug/Kg
87-86-5	Pentachlorophenol	60.2	U	60.2	390	ug/Kg
85-01-8	Phenanthrene	24.5	U	24.5	200	ug/Kg
120-12-7	Anthracene	39.1	U	39.1	200	ug/Kg
86-74-8	Carbazole	36.6	U	36.6	200	ug/Kg
84-74-2	Di-n-butylphthalate	56.2	U	56.2	200	ug/Kg
206-44-0	Fluoranthene	35.2	U	35.2	200	ug/Kg
129-00-0	Pyrene	42.2	U	42.2	200	ug/Kg
85-68-7	Butylbenzylphthalate	83.8	U	83.8	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	43.1	U	43.1	390	ug/Kg
56-55-3	Benzo(a)anthracene	27.0	U	27.0	200	ug/Kg
218-01-9	Chrysene	23.4	U	23.4	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	69.5	U	69.5	200	ug/Kg
117-84-0	Di-n-octyl phthalate	100	U	100	390	ug/Kg
205-99-2	Benzo(b)fluoranthene	22.3	U	22.3	200	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-85	SDG No.:	Q2436
Lab Sample ID:	Q2436-03	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142933.D	1	06/27/25 11:20	07/01/25 00:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	26.3	U	26.3	200	ug/Kg
50-32-8	Benzo(a)pyrene	34.6	U	34.6	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	34.1	U	34.1	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	32.2	U	32.2	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	30.2	U	30.2	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	30.0	U	30.0	200	ug/Kg
123-91-1	1,4-Dioxane	53.0	U	53.0	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	32.2	U	32.2	200	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	83.3		18 - 112	56%	SPK: 150
13127-88-3	Phenol-d6	82.6		15 - 107	55%	SPK: 150
4165-60-0	Nitrobenzene-d5	55.3		18 - 107	55%	SPK: 100
321-60-8	2-Fluorobiphenyl	53.1		20 - 109	53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	76.1		10 - 116	51%	SPK: 150
1718-51-0	Terphenyl-d14	34.5		10 - 105	34%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	65100	6.875
1146-65-2	Naphthalene-d8	229000	8.157
15067-26-2	Acenaphthene-d10	111000	9.91
1517-22-2	Phenanthrene-d10	164000	11.404
1719-03-5	Chrysene-d12	141000	14.045
1520-96-3	Perylene-d12	150000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	310	AB	5.09	ug/Kg
000119-61-9	Benzophenone	130	J	10.6	ug/Kg
000057-10-3	n-Hexadecanoic acid	89.6	J	11.9	ug/Kg
1000351-75-1	Tricosyl trifluoroacetate	150	J	13.9	ug/Kg
000791-28-6	Triphenylphosphine oxide	140	J	14.1	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-85	SDG No.:	Q2436
Lab Sample ID:	Q2436-03	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.1
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup : N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142933.D	1	06/27/25 11:20	07/01/25 00:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-86	SDG No.:	Q2436
Lab Sample ID:	Q2436-04	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.7
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142924.D	1	06/27/25 11:20	06/30/25 19:44	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	180	U	180	370	ug/Kg
108-95-2	Phenol	24.9	U	24.9	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	27.3	U	27.3	190	ug/Kg
95-57-8	2-Chlorophenol	27.4	U	27.4	190	ug/Kg
95-48-7	2-Methylphenol	33.6	U	33.6	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	42.2	U	42.2	190	ug/Kg
98-86-2	Acetophenone	33.2	U	33.2	190	ug/Kg
65794-96-9	3+4-Methylphenols	46.2	U	46.2	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	53.3	U	53.3	90.0	ug/Kg
67-72-1	Hexachloroethane	19.8	U	19.8	190	ug/Kg
98-95-3	Nitrobenzene	20.6	U	20.6	190	ug/Kg
78-59-1	Isophorone	36.9	U	36.9	190	ug/Kg
88-75-5	2-Nitrophenol	65.5	U	65.5	190	ug/Kg
105-67-9	2,4-Dimethylphenol	72.9	U	72.9	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	34.6	U	34.6	190	ug/Kg
120-83-2	2,4-Dichlorophenol	31.8	U	31.8	190	ug/Kg
91-20-3	Naphthalene	25.5	U	25.5	190	ug/Kg
106-47-8	4-Chloroaniline	39.8	U	39.8	190	ug/Kg
87-68-3	Hexachlorobutadiene	28.5	U	28.5	190	ug/Kg
105-60-2	Caprolactam	58.6	U	58.6	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	32.3	U	32.3	190	ug/Kg
91-57-6	2-Methylnaphthalene	28.8	U	28.8	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	22.3	U	22.3	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	32.7	U	32.7	190	ug/Kg
92-52-4	1,1-Biphenyl	24.5	U	24.5	190	ug/Kg
91-58-7	2-Chloronaphthalene	25.3	U	25.3	190	ug/Kg
88-74-4	2-Nitroaniline	54.1	U	54.1	190	ug/Kg
131-11-3	Dimethylphthalate	30.5	U	30.5	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-86	SDG No.:	Q2436
Lab Sample ID:	Q2436-04	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.7
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142924.D	1	06/27/25 11:20	06/30/25 19:44	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	32.5	U	32.5	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	37.8	U	37.8	190	ug/Kg
99-09-2	3-Nitroaniline	51.7	U	51.7	190	ug/Kg
83-32-9	Acenaphthene	24.0	U	24.0	190	ug/Kg
51-28-5	2,4-Dinitrophenol	260	U	260	370	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	370	ug/Kg
132-64-9	Dibenzofuran	25.5	U	25.5	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	56.4	U	56.4	190	ug/Kg
84-66-2	Diethylphthalate	31.8	U	31.8	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	30.0	U	30.0	190	ug/Kg
86-73-7	Fluorene	28.5	U	28.5	190	ug/Kg
100-01-6	4-Nitroaniline	72.2	U	72.2	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	120	U	120	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	37.0	U	37.0	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	31.3	U	31.3	190	ug/Kg
118-74-1	Hexachlorobenzene	28.5	U	28.5	190	ug/Kg
1912-24-9	Atrazine	38.2	U	38.2	190	ug/Kg
87-86-5	Pentachlorophenol	57.7	U	57.7	370	ug/Kg
85-01-8	Phenanthrene	23.5	U	23.5	190	ug/Kg
120-12-7	Anthracene	37.5	U	37.5	190	ug/Kg
86-74-8	Carbazole	35.1	U	35.1	190	ug/Kg
84-74-2	Di-n-butylphthalate	53.9	U	53.9	190	ug/Kg
206-44-0	Fluoranthene	33.7	U	33.7	190	ug/Kg
129-00-0	Pyrene	40.5	U	40.5	190	ug/Kg
85-68-7	Butylbenzylphthalate	80.3	U	80.3	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	41.3	U	41.3	370	ug/Kg
56-55-3	Benzo(a)anthracene	25.9	U	25.9	190	ug/Kg
218-01-9	Chrysene	22.4	U	22.4	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	66.6	U	66.6	190	ug/Kg
117-84-0	Di-n-octyl phthalate	97.6	U	97.6	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	21.4	U	21.4	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-86	SDG No.:	Q2436
Lab Sample ID:	Q2436-04	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.7
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142924.D	1	06/27/25 11:20	06/30/25 19:44	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	25.2	U	25.2	190	ug/Kg
50-32-8	Benzo(a)pyrene	33.2	U	33.2	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	32.7	U	32.7	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	30.8	U	30.8	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	28.9	U	28.9	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	28.8	U	28.8	190	ug/Kg
123-91-1	1,4-Dioxane	50.8	U	50.8	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	30.8	U	30.8	190	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	79.5		18 - 112	53%	SPK: 150
13127-88-3	Phenol-d6	79.0		15 - 107	53%	SPK: 150
4165-60-0	Nitrobenzene-d5	50.1		18 - 107	50%	SPK: 100
321-60-8	2-Fluorobiphenyl	46.4		20 - 109	46%	SPK: 100
118-79-6	2,4,6-Tribromophenol	73.9		10 - 116	49%	SPK: 150
1718-51-0	Terphenyl-d14	40.9		10 - 105	41%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	73900	6.875
1146-65-2	Naphthalene-d8	282000	8.157
15067-26-2	Acenaphthene-d10	145000	9.916
1517-22-2	Phenanthrene-d10	227000	11.404
1719-03-5	Chrysene-d12	138000	14.045
1520-96-3	Perylene-d12	164000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	220	AB	5.09	ug/Kg
000119-61-9	Benzophenone	120	J	10.6	ug/Kg
1000406-04-8	Pentadecafluorooctanoic acid, octa	150	J	13.9	ug/Kg
045235-48-1	1-Decanol, 2-octyl-	86.2	J	14.5	ug/Kg
	unknown18.462	78.0	J	18.5	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-86	SDG No.:	Q2436
Lab Sample ID:	Q2436-04	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.7
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup :
		N	PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142924.D	1	06/27/25 11:20	06/30/25 19:44	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-84	SDG No.:	Q2436
Lab Sample ID:	Q2436-05	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.3
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142929.D	1	06/27/25 11:20	06/30/25 22:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	360	ug/Kg
108-95-2	Phenol	23.9	U	23.9	180	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	26.3	U	26.3	180	ug/Kg
95-57-8	2-Chlorophenol	26.4	U	26.4	180	ug/Kg
95-48-7	2-Methylphenol	32.4	U	32.4	180	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	40.6	U	40.6	180	ug/Kg
98-86-2	Acetophenone	31.9	U	31.9	180	ug/Kg
65794-96-9	3+4-Methylphenols	44.5	U	44.5	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	51.3	U	51.3	86.6	ug/Kg
67-72-1	Hexachloroethane	19.0	U	19.0	180	ug/Kg
98-95-3	Nitrobenzene	19.8	U	19.8	180	ug/Kg
78-59-1	Isophorone	35.5	U	35.5	180	ug/Kg
88-75-5	2-Nitrophenol	63.0	U	63.0	180	ug/Kg
105-67-9	2,4-Dimethylphenol	70.1	U	70.1	180	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.3	U	33.3	180	ug/Kg
120-83-2	2,4-Dichlorophenol	30.6	U	30.6	180	ug/Kg
91-20-3	Naphthalene	24.6	U	24.6	180	ug/Kg
106-47-8	4-Chloroaniline	38.3	U	38.3	180	ug/Kg
87-68-3	Hexachlorobutadiene	27.4	U	27.4	180	ug/Kg
105-60-2	Caprolactam	56.4	U	56.4	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.1	U	31.1	180	ug/Kg
91-57-6	2-Methylnaphthalene	27.7	U	27.7	180	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	21.4	U	21.4	180	ug/Kg
95-95-4	2,4,5-Trichlorophenol	31.5	U	31.5	180	ug/Kg
92-52-4	1,1-Biphenyl	23.6	U	23.6	180	ug/Kg
91-58-7	2-Chloronaphthalene	24.4	U	24.4	180	ug/Kg
88-74-4	2-Nitroaniline	52.1	U	52.1	180	ug/Kg
131-11-3	Dimethylphthalate	29.3	U	29.3	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-84	SDG No.:	Q2436
Lab Sample ID:	Q2436-05	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.3
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142929.D	1	06/27/25 11:20	06/30/25 22:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	31.3	U	31.3	180	ug/Kg
606-20-2	2,6-Dinitrotoluene	36.4	U	36.4	180	ug/Kg
99-09-2	3-Nitroaniline	49.8	U	49.8	180	ug/Kg
83-32-9	Acenaphthene	23.1	U	23.1	180	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	360	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	360	ug/Kg
132-64-9	Dibenzofuran	24.6	U	24.6	180	ug/Kg
121-14-2	2,4-Dinitrotoluene	54.2	U	54.2	180	ug/Kg
84-66-2	Diethylphthalate	30.6	U	30.6	180	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	28.9	U	28.9	180	ug/Kg
86-73-7	Fluorene	27.4	U	27.4	180	ug/Kg
100-01-6	4-Nitroaniline	69.5	U	69.5	180	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	35.6	U	35.6	180	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.1	U	30.1	180	ug/Kg
118-74-1	Hexachlorobenzene	27.4	U	27.4	180	ug/Kg
1912-24-9	Atrazine	36.8	U	36.8	180	ug/Kg
87-86-5	Pentachlorophenol	55.5	U	55.5	360	ug/Kg
85-01-8	Phenanthrene	22.6	U	22.6	180	ug/Kg
120-12-7	Anthracene	36.0	U	36.0	180	ug/Kg
86-74-8	Carbazole	33.8	U	33.8	180	ug/Kg
84-74-2	Di-n-butylphthalate	51.8	U	51.8	180	ug/Kg
206-44-0	Fluoranthene	32.5	U	32.5	180	ug/Kg
129-00-0	Pyrene	39.0	U	39.0	180	ug/Kg
85-68-7	Butylbenzylphthalate	77.3	U	77.3	180	ug/Kg
91-94-1	3,3-Dichlorobenzidine	39.7	U	39.7	360	ug/Kg
56-55-3	Benzo(a)anthracene	24.9	U	24.9	180	ug/Kg
218-01-9	Chrysene	21.5	U	21.5	180	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	64.1	U	64.1	180	ug/Kg
117-84-0	Di-n-octyl phthalate	93.9	U	93.9	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	20.6	U	20.6	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-84	SDG No.:	Q2436
Lab Sample ID:	Q2436-05	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.3
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142929.D	1	06/27/25 11:20	06/30/25 22:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.2	U	24.2	180	ug/Kg
50-32-8	Benzo(a)pyrene	31.9	U	31.9	180	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	31.5	U	31.5	180	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	29.7	U	29.7	180	ug/Kg
191-24-2	Benzo(g,h,i)perylene	27.8	U	27.8	180	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	27.7	U	27.7	180	ug/Kg
123-91-1	1,4-Dioxane	48.9	U	48.9	180	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	29.7	U	29.7	180	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	87.9		18 - 112	59%	SPK: 150
13127-88-3	Phenol-d6	87.2		15 - 107	58%	SPK: 150
4165-60-0	Nitrobenzene-d5	55.7		18 - 107	56%	SPK: 100
321-60-8	2-Fluorobiphenyl	52.7		20 - 109	53%	SPK: 100
118-79-6	2,4,6-Tribromophenol	81.8		10 - 116	55%	SPK: 150
1718-51-0	Terphenyl-d14	42.4		10 - 105	42%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	85300	6.875			
1146-65-2	Naphthalene-d8	316000	8.157			
15067-26-2	Acenaphthene-d10	159000	9.916			
1517-22-2	Phenanthrene-d10	249000	11.404			
1719-03-5	Chrysene-d12	161000	14.045			
1520-96-3	Perylene-d12	196000	15.539			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	240	AB		5.09	ug/Kg
000119-61-9	Benzophenone	130	J		10.6	ug/Kg
1000351-75-1	Tricosyl trifluoroacetate	150	J		13.9	ug/Kg
000791-28-6	Triphenylphosphine oxide	72.9	J		14.1	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-84	SDG No.:	Q2436
Lab Sample ID:	Q2436-05	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.3
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142929.D	1	06/27/25 11:20	06/30/25 22:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-83	SDG No.:	Q2436
Lab Sample ID:	Q2436-06	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.6
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142927.D	1	06/27/25 11:20	06/30/25 21:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	360	ug/Kg
108-95-2	Phenol	24.3	U	24.3	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	26.8	U	26.8	190	ug/Kg
95-57-8	2-Chlorophenol	26.9	U	26.9	190	ug/Kg
95-48-7	2-Methylphenol	32.9	U	32.9	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	41.3	U	41.3	190	ug/Kg
98-86-2	Acetophenone	32.5	U	32.5	190	ug/Kg
65794-96-9	3+4-Methylphenols	45.3	U	45.3	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	52.2	U	52.2	88.1	ug/Kg
67-72-1	Hexachloroethane	19.4	U	19.4	190	ug/Kg
98-95-3	Nitrobenzene	20.2	U	20.2	190	ug/Kg
78-59-1	Isophorone	36.1	U	36.1	190	ug/Kg
88-75-5	2-Nitrophenol	64.1	U	64.1	190	ug/Kg
105-67-9	2,4-Dimethylphenol	71.4	U	71.4	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.9	U	33.9	190	ug/Kg
120-83-2	2,4-Dichlorophenol	31.2	U	31.2	190	ug/Kg
91-20-3	Naphthalene	25.0	U	25.0	190	ug/Kg
106-47-8	4-Chloroaniline	39.0	U	39.0	190	ug/Kg
87-68-3	Hexachlorobutadiene	27.9	U	27.9	190	ug/Kg
105-60-2	Caprolactam	57.4	U	57.4	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.6	U	31.6	190	ug/Kg
91-57-6	2-Methylnaphthalene	28.2	U	28.2	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	21.8	U	21.8	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	32.1	U	32.1	190	ug/Kg
92-52-4	1,1-Biphenyl	24.0	U	24.0	190	ug/Kg
91-58-7	2-Chloronaphthalene	24.8	U	24.8	190	ug/Kg
88-74-4	2-Nitroaniline	53.0	U	53.0	190	ug/Kg
131-11-3	Dimethylphthalate	29.9	U	29.9	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-83	SDG No.:	Q2436
Lab Sample ID:	Q2436-06	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.6
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type :		Decanted :	N
Injection Volume :		GPC Factor :	1.0
Prep Method :	SW3541	Level :	LOW
		Final Vol:	1000 uL
		Test:	SVOC-TCL BNA -20
		GPC Cleanup :	N
		PH :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142927.D	1	06/27/25 11:20	06/30/25 21:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	31.8	U	31.8	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	37.0	U	37.0	190	ug/Kg
99-09-2	3-Nitroaniline	50.7	U	50.7	190	ug/Kg
83-32-9	Acenaphthene	23.5	U	23.5	190	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	360	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	360	ug/Kg
132-64-9	Dibenzofuran	25.0	U	25.0	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	55.2	U	55.2	190	ug/Kg
84-66-2	Diethylphthalate	31.2	U	31.2	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	29.4	U	29.4	190	ug/Kg
86-73-7	Fluorene	27.9	U	27.9	190	ug/Kg
100-01-6	4-Nitroaniline	70.7	U	70.7	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	36.2	U	36.2	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.6	U	30.6	190	ug/Kg
118-74-1	Hexachlorobenzene	27.9	U	27.9	190	ug/Kg
1912-24-9	Atrazine	37.5	U	37.5	190	ug/Kg
87-86-5	Pentachlorophenol	56.5	U	56.5	360	ug/Kg
85-01-8	Phenanthrene	23.0	U	23.0	190	ug/Kg
120-12-7	Anthracene	36.7	U	36.7	190	ug/Kg
86-74-8	Carbazole	34.4	U	34.4	190	ug/Kg
84-74-2	Di-n-butylphthalate	52.8	U	52.8	190	ug/Kg
206-44-0	Fluoranthene	33.0	U	33.0	190	ug/Kg
129-00-0	Pyrene	39.7	U	39.7	190	ug/Kg
85-68-7	Butylbenzylphthalate	78.7	U	78.7	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	40.4	U	40.4	360	ug/Kg
56-55-3	Benzo(a)anthracene	25.3	U	25.3	190	ug/Kg
218-01-9	Chrysene	21.9	U	21.9	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	65.2	U	65.2	190	ug/Kg
117-84-0	Di-n-octyl phthalate	95.6	U	95.6	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	20.9	U	20.9	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-83	SDG No.:	Q2436
Lab Sample ID:	Q2436-06	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.6
Sample Wt/Vol:	30.06 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142927.D	1	06/27/25 11:20	06/30/25 21:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.7	U	24.7	190	ug/Kg
50-32-8	Benzo(a)pyrene	32.5	U	32.5	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	32.1	U	32.1	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	30.2	U	30.2	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	28.3	U	28.3	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	28.2	U	28.2	190	ug/Kg
123-91-1	1,4-Dioxane	49.8	U	49.8	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	30.2	U	30.2	190	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	76.8		18 - 112	51%	SPK: 150
13127-88-3	Phenol-d6	78.0		15 - 107	52%	SPK: 150
4165-60-0	Nitrobenzene-d5	49.9		18 - 107	50%	SPK: 100
321-60-8	2-Fluorobiphenyl	49.5		20 - 109	49%	SPK: 100
118-79-6	2,4,6-Tribromophenol	73.4		10 - 116	49%	SPK: 150
1718-51-0	Terphenyl-d14	42.1		10 - 105	42%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	66200	6.875			
1146-65-2	Naphthalene-d8	244000	8.157			
15067-26-2	Acenaphthene-d10	124000	9.91			
1517-22-2	Phenanthrene-d10	193000	11.404			
1719-03-5	Chrysene-d12	118000	14.045			
1520-96-3	Perylene-d12	142000	15.539			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	210	AB		5.09	ug/Kg
000119-61-9	Benzophenone	160	J		10.6	ug/Kg
006971-40-0	17-Pentatriacontene	150	J		13.9	ug/Kg
1010351-87-0	Heptadecyl trifluoroacetate	79.3	J		14.5	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/25/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-83	SDG No.:	Q2436
Lab Sample ID:	Q2436-06	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	90.6
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup :
		N	PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142927.D	1	06/27/25 11:20	06/30/25 21:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-87	SDG No.:	Q2436
Lab Sample ID:	Q2436-07	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	89.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142928.D	1	06/27/25 11:20	06/30/25 21:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	370	ug/Kg
108-95-2	Phenol	24.5	U	24.5	190	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	27.0	U	27.0	190	ug/Kg
95-57-8	2-Chlorophenol	27.1	U	27.1	190	ug/Kg
95-48-7	2-Methylphenol	33.2	U	33.2	190	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	41.6	U	41.6	190	ug/Kg
98-86-2	Acetophenone	32.7	U	32.7	190	ug/Kg
65794-96-9	3+4-Methylphenols	45.6	U	45.6	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	52.6	U	52.6	88.8	ug/Kg
67-72-1	Hexachloroethane	19.5	U	19.5	190	ug/Kg
98-95-3	Nitrobenzene	20.3	U	20.3	190	ug/Kg
78-59-1	Isophorone	36.4	U	36.4	190	ug/Kg
88-75-5	2-Nitrophenol	64.6	U	64.6	190	ug/Kg
105-67-9	2,4-Dimethylphenol	71.9	U	71.9	190	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	34.2	U	34.2	190	ug/Kg
120-83-2	2,4-Dichlorophenol	31.4	U	31.4	190	ug/Kg
91-20-3	Naphthalene	25.2	U	25.2	190	ug/Kg
106-47-8	4-Chloroaniline	39.3	U	39.3	190	ug/Kg
87-68-3	Hexachlorobutadiene	28.1	U	28.1	190	ug/Kg
105-60-2	Caprolactam	57.8	U	57.8	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.8	U	31.8	190	ug/Kg
91-57-6	2-Methylnaphthalene	28.4	U	28.4	190	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	22.0	U	22.0	190	ug/Kg
95-95-4	2,4,5-Trichlorophenol	32.3	U	32.3	190	ug/Kg
92-52-4	1,1-Biphenyl	24.2	U	24.2	190	ug/Kg
91-58-7	2-Chloronaphthalene	25.0	U	25.0	190	ug/Kg
88-74-4	2-Nitroaniline	53.4	U	53.4	190	ug/Kg
131-11-3	Dimethylphthalate	30.1	U	30.1	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-87	SDG No.:	Q2436
Lab Sample ID:	Q2436-07	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	89.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142928.D	1	06/27/25 11:20	06/30/25 21:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	32.1	U	32.1	190	ug/Kg
606-20-2	2,6-Dinitrotoluene	37.3	U	37.3	190	ug/Kg
99-09-2	3-Nitroaniline	51.0	U	51.0	190	ug/Kg
83-32-9	Acenaphthene	23.6	U	23.6	190	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	370	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	370	ug/Kg
132-64-9	Dibenzofuran	25.2	U	25.2	190	ug/Kg
121-14-2	2,4-Dinitrotoluene	55.6	U	55.6	190	ug/Kg
84-66-2	Diethylphthalate	31.4	U	31.4	190	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	29.6	U	29.6	190	ug/Kg
86-73-7	Fluorene	28.1	U	28.1	190	ug/Kg
100-01-6	4-Nitroaniline	71.2	U	71.2	190	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	36.5	U	36.5	190	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.8	U	30.8	190	ug/Kg
118-74-1	Hexachlorobenzene	28.1	U	28.1	190	ug/Kg
1912-24-9	Atrazine	37.7	U	37.7	190	ug/Kg
87-86-5	Pentachlorophenol	56.9	U	56.9	370	ug/Kg
85-01-8	Phenanthrene	23.2	U	23.2	190	ug/Kg
120-12-7	Anthracene	36.9	U	36.9	190	ug/Kg
86-74-8	Carbazole	34.6	U	34.6	190	ug/Kg
84-74-2	Di-n-butylphthalate	53.1	U	53.1	190	ug/Kg
206-44-0	Fluoranthene	33.3	U	33.3	190	ug/Kg
129-00-0	Pyrene	39.9	U	39.9	190	ug/Kg
85-68-7	Butylbenzylphthalate	79.2	U	79.2	190	ug/Kg
91-94-1	3,3-Dichlorobenzidine	40.7	U	40.7	370	ug/Kg
56-55-3	Benzo(a)anthracene	25.5	U	25.5	190	ug/Kg
218-01-9	Chrysene	22.1	U	22.1	190	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	65.7	U	65.7	190	ug/Kg
117-84-0	Di-n-octyl phthalate	96.3	U	96.3	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	21.1	U	21.1	190	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-87	SDG No.:	Q2436
Lab Sample ID:	Q2436-07	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	89.9
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142928.D	1	06/27/25 11:20	06/30/25 21:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.9	U	24.9	190	ug/Kg
50-32-8	Benzo(a)pyrene	32.7	U	32.7	190	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	32.3	U	32.3	190	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	30.4	U	30.4	190	ug/Kg
191-24-2	Benzo(g,h,i)perylene	28.5	U	28.5	190	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	28.4	U	28.4	190	ug/Kg
123-91-1	1,4-Dioxane	50.1	U	50.1	190	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	30.4	U	30.4	190	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	82.4		18 - 112	55%	SPK: 150
13127-88-3	Phenol-d6	81.7		15 - 107	54%	SPK: 150
4165-60-0	Nitrobenzene-d5	53.0		18 - 107	53%	SPK: 100
321-60-8	2-Fluorobiphenyl	52.0		20 - 109	52%	SPK: 100
118-79-6	2,4,6-Tribromophenol	78.7		10 - 116	52%	SPK: 150
1718-51-0	Terphenyl-d14	42.8		10 - 105	43%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	67200	6.869
1146-65-2	Naphthalene-d8	248000	8.157
15067-26-2	Acenaphthene-d10	124000	9.916
1517-22-2	Phenanthrene-d10	194000	11.404
1719-03-5	Chrysene-d12	121000	14.045
1520-96-3	Perylene-d12	147000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	230	AB	5.09	ug/Kg
000119-61-9	Benzophenone	170	J	10.6	ug/Kg
959218-78-1	Pentafluoropropionic acid, heptade	120	J	13.9	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-87	SDG No.:	Q2436
Lab Sample ID:	Q2436-07	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	89.9
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup :
		N	PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142928.D	1	06/27/25 11:20	06/30/25 21:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-100	SDG No.:	Q2436
Lab Sample ID:	Q2436-08	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142930.D	1	06/27/25 11:20	06/30/25 22:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	180	U	180	380	ug/Kg
108-95-2	Phenol	25.8	U	25.8	200	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	28.3	U	28.3	200	ug/Kg
95-57-8	2-Chlorophenol	28.5	U	28.5	200	ug/Kg
95-48-7	2-Methylphenol	34.9	U	34.9	200	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	43.7	U	43.7	200	ug/Kg
98-86-2	Acetophenone	34.4	U	34.4	200	ug/Kg
65794-96-9	3+4-Methylphenols	47.9	U	47.9	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	55.3	U	55.3	93.3	ug/Kg
67-72-1	Hexachloroethane	20.5	U	20.5	200	ug/Kg
98-95-3	Nitrobenzene	21.3	U	21.3	200	ug/Kg
78-59-1	Isophorone	38.3	U	38.3	200	ug/Kg
88-75-5	2-Nitrophenol	67.9	U	67.9	200	ug/Kg
105-67-9	2,4-Dimethylphenol	75.6	U	75.6	200	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	35.9	U	35.9	200	ug/Kg
120-83-2	2,4-Dichlorophenol	33.0	U	33.0	200	ug/Kg
91-20-3	Naphthalene	26.5	U	26.5	200	ug/Kg
106-47-8	4-Chloroaniline	41.3	U	41.3	200	ug/Kg
87-68-3	Hexachlorobutadiene	29.5	U	29.5	200	ug/Kg
105-60-2	Caprolactam	60.8	U	60.8	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	33.5	U	33.5	200	ug/Kg
91-57-6	2-Methylnaphthalene	29.9	U	29.9	200	ug/Kg
77-47-4	Hexachlorocyclopentadiene	140	U	140	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	23.1	U	23.1	200	ug/Kg
95-95-4	2,4,5-Trichlorophenol	33.9	U	33.9	200	ug/Kg
92-52-4	1,1-Biphenyl	25.4	U	25.4	200	ug/Kg
91-58-7	2-Chloronaphthalene	26.2	U	26.2	200	ug/Kg
88-74-4	2-Nitroaniline	56.1	U	56.1	200	ug/Kg
131-11-3	Dimethylphthalate	31.6	U	31.6	200	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-100	SDG No.:	Q2436
Lab Sample ID:	Q2436-08	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142930.D	1	06/27/25 11:20	06/30/25 22:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	33.7	U	33.7	200	ug/Kg
606-20-2	2,6-Dinitrotoluene	39.2	U	39.2	200	ug/Kg
99-09-2	3-Nitroaniline	53.6	U	53.6	200	ug/Kg
83-32-9	Acenaphthene	24.8	U	24.8	200	ug/Kg
51-28-5	2,4-Dinitrophenol	270	U	270	380	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	380	ug/Kg
132-64-9	Dibenzofuran	26.5	U	26.5	200	ug/Kg
121-14-2	2,4-Dinitrotoluene	58.4	U	58.4	200	ug/Kg
84-66-2	Diethylphthalate	33.0	U	33.0	200	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	31.1	U	31.1	200	ug/Kg
86-73-7	Fluorene	29.5	U	29.5	200	ug/Kg
100-01-6	4-Nitroaniline	74.9	U	74.9	200	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	120	U	120	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	38.4	U	38.4	200	ug/Kg
101-55-3	4-Bromophenyl-phenylether	32.4	U	32.4	200	ug/Kg
118-74-1	Hexachlorobenzene	29.5	U	29.5	200	ug/Kg
1912-24-9	Atrazine	39.7	U	39.7	200	ug/Kg
87-86-5	Pentachlorophenol	59.8	U	59.8	380	ug/Kg
85-01-8	Phenanthrene	24.4	U	24.4	200	ug/Kg
120-12-7	Anthracene	38.8	U	38.8	200	ug/Kg
86-74-8	Carbazole	36.4	U	36.4	200	ug/Kg
84-74-2	Di-n-butylphthalate	55.9	U	55.9	200	ug/Kg
206-44-0	Fluoranthene	78.8	J	35.0	200	ug/Kg
129-00-0	Pyrene	81.8	J	42.0	200	ug/Kg
85-68-7	Butylbenzylphthalate	83.3	U	83.3	200	ug/Kg
91-94-1	3,3-Dichlorobenzidine	42.8	U	42.8	380	ug/Kg
56-55-3	Benzo(a)anthracene	26.8	U	26.8	200	ug/Kg
218-01-9	Chrysene	23.2	U	23.2	200	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	150	J	69.0	200	ug/Kg
117-84-0	Di-n-octyl phthalate	100	U	100	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	22.2	U	22.2	200	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-100	SDG No.:	Q2436
Lab Sample ID:	Q2436-08	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142930.D	1	06/27/25 11:20	06/30/25 22:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	26.1	U	26.1	200	ug/Kg
50-32-8	Benzo(a)pyrene	34.4	U	34.4	200	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	33.9	U	33.9	200	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	32.0	U	32.0	200	ug/Kg
191-24-2	Benzo(g,h,i)perylene	30.0	U	30.0	200	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	29.9	U	29.9	200	ug/Kg
123-91-1	1,4-Dioxane	52.7	U	52.7	200	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	32.0	U	32.0	200	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	71.1		18 - 112	47%	SPK: 150
13127-88-3	Phenol-d6	70.6		15 - 107	47%	SPK: 150
4165-60-0	Nitrobenzene-d5	46.1		18 - 107	46%	SPK: 100
321-60-8	2-Fluorobiphenyl	42.2		20 - 109	42%	SPK: 100
118-79-6	2,4,6-Tribromophenol	67.6		10 - 116	45%	SPK: 150
1718-51-0	Terphenyl-d14	32.1		10 - 105	32%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	82900	6.869			
1146-65-2	Naphthalene-d8	301000	8.157			
15067-26-2	Acenaphthene-d10	152000	9.91			
1517-22-2	Phenanthrene-d10	227000	11.404			
1719-03-5	Chrysene-d12	158000	14.045			
1520-96-3	Perylene-d12	190000	15.539			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	220	AB		5.09	ug/Kg
000119-61-9	Benzophenone	130	J		10.6	ug/Kg
000057-10-3	n-Hexadecanoic acid	89.8	J		11.9	ug/Kg
006222-03-3	Trifluoroacetoxy hexadecane	100	J		13.9	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-100	SDG No.:	Q2436
Lab Sample ID:	Q2436-08	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	85.6
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142930.D	1	06/27/25 11:20	06/30/25 22:45	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-99	SDG No.:	Q2436
Lab Sample ID:	Q2436-09	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142925.D	1	06/27/25 11:20	06/30/25 20:14	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	360	ug/Kg
108-95-2	Phenol	24.0	U	24.0	180	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	26.3	U	26.3	180	ug/Kg
95-57-8	2-Chlorophenol	26.4	U	26.4	180	ug/Kg
95-48-7	2-Methylphenol	32.4	U	32.4	180	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	40.6	U	40.6	180	ug/Kg
98-86-2	Acetophenone	32.0	U	32.0	180	ug/Kg
65794-96-9	3+4-Methylphenols	44.5	U	44.5	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	51.4	U	51.4	86.7	ug/Kg
67-72-1	Hexachloroethane	19.1	U	19.1	180	ug/Kg
98-95-3	Nitrobenzene	19.8	U	19.8	180	ug/Kg
78-59-1	Isophorone	35.6	U	35.6	180	ug/Kg
88-75-5	2-Nitrophenol	63.1	U	63.1	180	ug/Kg
105-67-9	2,4-Dimethylphenol	70.2	U	70.2	180	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.4	U	33.4	180	ug/Kg
120-83-2	2,4-Dichlorophenol	30.7	U	30.7	180	ug/Kg
91-20-3	Naphthalene	24.6	U	24.6	180	ug/Kg
106-47-8	4-Chloroaniline	38.4	U	38.4	180	ug/Kg
87-68-3	Hexachlorobutadiene	27.4	U	27.4	180	ug/Kg
105-60-2	Caprolactam	56.5	U	56.5	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.1	U	31.1	180	ug/Kg
91-57-6	2-Methylnaphthalene	27.7	U	27.7	180	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	21.5	U	21.5	180	ug/Kg
95-95-4	2,4,5-Trichlorophenol	31.5	U	31.5	180	ug/Kg
92-52-4	1,1-Biphenyl	23.6	U	23.6	180	ug/Kg
91-58-7	2-Chloronaphthalene	24.4	U	24.4	180	ug/Kg
88-74-4	2-Nitroaniline	52.1	U	52.1	180	ug/Kg
131-11-3	Dimethylphthalate	29.4	U	29.4	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-99	SDG No.:	Q2436
Lab Sample ID:	Q2436-09	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142925.D	1	06/27/25 11:20	06/30/25 20:14	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	31.3	U	31.3	180	ug/Kg
606-20-2	2,6-Dinitrotoluene	36.4	U	36.4	180	ug/Kg
99-09-2	3-Nitroaniline	49.9	U	49.9	180	ug/Kg
83-32-9	Acenaphthene	23.1	U	23.1	180	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	360	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	360	ug/Kg
132-64-9	Dibenzofuran	24.6	U	24.6	180	ug/Kg
121-14-2	2,4-Dinitrotoluene	54.3	U	54.3	180	ug/Kg
84-66-2	Diethylphthalate	30.7	U	30.7	180	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	28.9	U	28.9	180	ug/Kg
86-73-7	Fluorene	27.4	U	27.4	180	ug/Kg
100-01-6	4-Nitroaniline	69.6	U	69.6	180	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	35.7	U	35.7	180	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.1	U	30.1	180	ug/Kg
118-74-1	Hexachlorobenzene	27.4	U	27.4	180	ug/Kg
1912-24-9	Atrazine	36.9	U	36.9	180	ug/Kg
87-86-5	Pentachlorophenol	55.6	U	55.6	360	ug/Kg
85-01-8	Phenanthrene	22.7	U	22.7	180	ug/Kg
120-12-7	Anthracene	36.1	U	36.1	180	ug/Kg
86-74-8	Carbazole	33.8	U	33.8	180	ug/Kg
84-74-2	Di-n-butylphthalate	51.9	U	51.9	180	ug/Kg
206-44-0	Fluoranthene	32.5	U	32.5	180	ug/Kg
129-00-0	Pyrene	39.0	U	39.0	180	ug/Kg
85-68-7	Butylbenzylphthalate	77.4	U	77.4	180	ug/Kg
91-94-1	3,3-Dichlorobenzidine	39.8	U	39.8	360	ug/Kg
56-55-3	Benzo(a)anthracene	24.9	U	24.9	180	ug/Kg
218-01-9	Chrysene	21.6	U	21.6	180	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	64.2	U	64.2	180	ug/Kg
117-84-0	Di-n-octyl phthalate	94.1	U	94.1	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	20.6	U	20.6	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-99	SDG No.:	Q2436
Lab Sample ID:	Q2436-09	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142925.D	1	06/27/25 11:20	06/30/25 20:14	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.3	U	24.3	180	ug/Kg
50-32-8	Benzo(a)pyrene	32.0	U	32.0	180	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	31.5	U	31.5	180	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	29.7	U	29.7	180	ug/Kg
191-24-2	Benzo(g,h,i)perylene	27.9	U	27.9	180	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	27.7	U	27.7	180	ug/Kg
123-91-1	1,4-Dioxane	49.0	U	49.0	180	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	29.7	U	29.7	180	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	75.4		18 - 112	50%	SPK: 150
13127-88-3	Phenol-d6	76.5		15 - 107	51%	SPK: 150
4165-60-0	Nitrobenzene-d5	46.9		18 - 107	47%	SPK: 100
321-60-8	2-Fluorobiphenyl	47.8		20 - 109	48%	SPK: 100
118-79-6	2,4,6-Tribromophenol	69.6		10 - 116	46%	SPK: 150
1718-51-0	Terphenyl-d14	42.6		10 - 105	43%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	60900	6.869
1146-65-2	Naphthalene-d8	231000	8.157
15067-26-2	Acenaphthene-d10	118000	9.916
1517-22-2	Phenanthrene-d10	189000	11.404
1719-03-5	Chrysene-d12	114000	14.045
1520-96-3	Perylene-d12	132000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	230	AB	5.08	ug/Kg
000119-61-9	Benzophenone	130	J	10.6	ug/Kg
1000351-83-4	Tricosyl heptafluorobutyrate	120	J	13.9	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-99	SDG No.:	Q2436
Lab Sample ID:	Q2436-09	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92.2
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142925.D	1	06/27/25 11:20	06/30/25 20:14	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-82	SDG No.:	Q2436
Lab Sample ID:	Q2436-10	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142931.D	1	06/27/25 11:20	06/30/25 23:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	170	U	170	360	ug/Kg
108-95-2	Phenol	23.9	U	23.9	180	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	26.3	U	26.3	180	ug/Kg
95-57-8	2-Chlorophenol	26.4	U	26.4	180	ug/Kg
95-48-7	2-Methylphenol	32.4	U	32.4	180	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	40.6	U	40.6	180	ug/Kg
98-86-2	Acetophenone	32.0	U	32.0	180	ug/Kg
65794-96-9	3+4-Methylphenols	44.5	U	44.5	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	51.4	U	51.4	86.7	ug/Kg
67-72-1	Hexachloroethane	19.1	U	19.1	180	ug/Kg
98-95-3	Nitrobenzene	19.8	U	19.8	180	ug/Kg
78-59-1	Isophorone	35.5	U	35.5	180	ug/Kg
88-75-5	2-Nitrophenol	63.1	U	63.1	180	ug/Kg
105-67-9	2,4-Dimethylphenol	70.2	U	70.2	180	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.4	U	33.4	180	ug/Kg
120-83-2	2,4-Dichlorophenol	30.7	U	30.7	180	ug/Kg
91-20-3	Naphthalene	24.6	U	24.6	180	ug/Kg
106-47-8	4-Chloroaniline	38.4	U	38.4	180	ug/Kg
87-68-3	Hexachlorobutadiene	27.4	U	27.4	180	ug/Kg
105-60-2	Caprolactam	56.5	U	56.5	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	31.1	U	31.1	180	ug/Kg
91-57-6	2-Methylnaphthalene	27.7	U	27.7	180	ug/Kg
77-47-4	Hexachlorocyclopentadiene	130	U	130	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	21.5	U	21.5	180	ug/Kg
95-95-4	2,4,5-Trichlorophenol	31.5	U	31.5	180	ug/Kg
92-52-4	1,1-Biphenyl	23.6	U	23.6	180	ug/Kg
91-58-7	2-Chloronaphthalene	24.4	U	24.4	180	ug/Kg
88-74-4	2-Nitroaniline	52.1	U	52.1	180	ug/Kg
131-11-3	Dimethylphthalate	29.4	U	29.4	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-82	SDG No.:	Q2436
Lab Sample ID:	Q2436-10	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:			uL
Extraction Type :		Decanted :	N
Injection Volume :		GPC Factor :	1.0
Prep Method :	SW3541	Level :	LOW
		Final Vol:	1000 uL
		Test:	SVOC-TCL BNA -20
		GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142931.D	1	06/27/25 11:20	06/30/25 23:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	31.3	U	31.3	180	ug/Kg
606-20-2	2,6-Dinitrotoluene	36.4	U	36.4	180	ug/Kg
99-09-2	3-Nitroaniline	49.9	U	49.9	180	ug/Kg
83-32-9	Acenaphthene	23.1	U	23.1	180	ug/Kg
51-28-5	2,4-Dinitrophenol	250	U	250	360	ug/Kg
100-02-7	4-Nitrophenol	120	U	120	360	ug/Kg
132-64-9	Dibenzofuran	24.6	U	24.6	180	ug/Kg
121-14-2	2,4-Dinitrotoluene	54.3	U	54.3	180	ug/Kg
84-66-2	Diethylphthalate	30.7	U	30.7	180	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	28.9	U	28.9	180	ug/Kg
86-73-7	Fluorene	27.4	U	27.4	180	ug/Kg
100-01-6	4-Nitroaniline	69.6	U	69.6	180	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	110	U	110	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	35.7	U	35.7	180	ug/Kg
101-55-3	4-Bromophenyl-phenylether	30.1	U	30.1	180	ug/Kg
118-74-1	Hexachlorobenzene	27.4	U	27.4	180	ug/Kg
1912-24-9	Atrazine	36.8	U	36.8	180	ug/Kg
87-86-5	Pentachlorophenol	55.6	U	55.6	360	ug/Kg
85-01-8	Phenanthrene	22.6	U	22.6	180	ug/Kg
120-12-7	Anthracene	36.1	U	36.1	180	ug/Kg
86-74-8	Carbazole	33.8	U	33.8	180	ug/Kg
84-74-2	Di-n-butylphthalate	51.9	U	51.9	180	ug/Kg
206-44-0	Fluoranthene	32.5	U	32.5	180	ug/Kg
129-00-0	Pyrene	39.0	U	39.0	180	ug/Kg
85-68-7	Butylbenzylphthalate	77.4	U	77.4	180	ug/Kg
91-94-1	3,3-Dichlorobenzidine	39.8	U	39.8	360	ug/Kg
56-55-3	Benzo(a)anthracene	24.9	U	24.9	180	ug/Kg
218-01-9	Chrysene	21.6	U	21.6	180	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	64.2	U	64.2	180	ug/Kg
117-84-0	Di-n-octyl phthalate	94.1	U	94.1	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	20.6	U	20.6	180	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-82	SDG No.:	Q2436
Lab Sample ID:	Q2436-10	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142931.D	1	06/27/25 11:20	06/30/25 23:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	24.3	U	24.3	180	ug/Kg
50-32-8	Benzo(a)pyrene	32.0	U	32.0	180	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	31.5	U	31.5	180	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	29.7	U	29.7	180	ug/Kg
191-24-2	Benzo(g,h,i)perylene	27.9	U	27.9	180	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	27.7	U	27.7	180	ug/Kg
123-91-1	1,4-Dioxane	49.0	U	49.0	180	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	29.7	U	29.7	180	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	80.1		18 - 112	53%	SPK: 150
13127-88-3	Phenol-d6	78.8		15 - 107	53%	SPK: 150
4165-60-0	Nitrobenzene-d5	50.9		18 - 107	51%	SPK: 100
321-60-8	2-Fluorobiphenyl	53.5		20 - 109	54%	SPK: 100
118-79-6	2,4,6-Tribromophenol	74.7		10 - 116	50%	SPK: 150
1718-51-0	Terphenyl-d14	38.3		10 - 105	38%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	59100	6.875			
1146-65-2	Naphthalene-d8	215000	8.157			
15067-26-2	Acenaphthene-d10	105000	9.91			
1517-22-2	Phenanthrene-d10	158000	11.404			
1719-03-5	Chrysene-d12	118000	14.045			
1520-96-3	Perylene-d12	137000	15.539			
TENTATIVE IDENTIFIED COMPOUNDS						
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	220	AB		5.09	ug/Kg
000119-61-9	Benzophenone	120	J		10.6	ug/Kg
079392-43-1	Octadecyl trifluoroacetate	120	J		13.9	ug/Kg
000791-28-6	Triphenylphosphine oxide	130	J		14.1	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	TP-82	SDG No.:	Q2436
Lab Sample ID:	Q2436-10	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	92
Sample Wt/Vol:	30.09	Units:	g
Soil Aliquot Vol:		Final Vol:	1000 uL
Extraction Type :		Test:	SVOC-TCL BNA -20
	Decanted :	Level :	LOW
Injection Volume :	GPC Factor :	1.0	GPC Cleanup :
		N	PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142931.D	1	06/27/25 11:20	06/30/25 23:15	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB168649BL	PB168649BL	2-Fluorophenol	150	125	84		18	112
		Phenol-d6	150	125	83		15	107
		Nitrobenzene-d5	100	78.4	78		18	107
		2-Fluorobiphenyl	100	78.7	79		20	109
		2,4,6-Tribromophenol	150	120	80		10	116
		Terphenyl-d14	100	72.0	72		10	105
PB168649BS	PB168649BS	2-Fluorophenol	150	128	86		18	112
		Phenol-d6	150	126	84		15	107
		Nitrobenzene-d5	100	79.9	80		18	107
		2-Fluorobiphenyl	100	84.0	84		20	109
		2,4,6-Tribromophenol	150	126	84		10	116
		Terphenyl-d14	100	71.8	72		10	105
Q2430-01MS	MH-E/FMS	2-Fluorophenol	150	90.0	60		18	112
		Phenol-d6	150	90.3	60		15	107
		Nitrobenzene-d5	100	57.0	57		18	107
		2-Fluorobiphenyl	100	57.5	57		20	109
		2,4,6-Tribromophenol	150	94.2	63		10	116
		Terphenyl-d14	100	53.9	54		10	105
Q2430-01MSD	MH-E/FMSD	2-Fluorophenol	150	89.4	60		18	112
		Phenol-d6	150	90.0	60		15	107
		Nitrobenzene-d5	100	56.7	57		18	107
		2-Fluorobiphenyl	100	55.7	56		20	109
		2,4,6-Tribromophenol	150	93.7	62		10	116
		Terphenyl-d14	100	53.5	53		10	105
Q2436-01	TP-70	2-Fluorophenol	150	64.5	43		18	112
		Phenol-d6	150	64.0	43		15	107
		Nitrobenzene-d5	100	40.1	40		18	107
		2-Fluorobiphenyl	100	37.5	37		20	109
		2,4,6-Tribromophenol	150	55.2	37		10	116
		Terphenyl-d14	100	32.2	32		10	105
Q2436-02	TP-69	2-Fluorophenol	150	68.7	46		18	112
		Phenol-d6	150	67.3	45		15	107
		Nitrobenzene-d5	100	44.1	44		18	107
		2-Fluorobiphenyl	100	43.9	44		20	109
		2,4,6-Tribromophenol	150	65.1	43		10	116
		Terphenyl-d14	100	30.0	30		10	105
Q2436-03	TP-85	2-Fluorophenol	150	83.3	56		18	112
		Phenol-d6	150	82.6	55		15	107
		Nitrobenzene-d5	100	55.3	55		18	107
		2-Fluorobiphenyl	100	53.1	53		20	109
		2,4,6-Tribromophenol	150	76.1	51		10	116
		Terphenyl-d14	100	34.5	34		10	105
Q2436-04	TP-86	2-Fluorophenol	150	79.5	53		18	112
		Phenol-d6	150	79.0	53		15	107
		Nitrobenzene-d5	100	50.1	50		18	107
		2-Fluorobiphenyl	100	46.4	46		20	109
		2,4,6-Tribromophenol	150	73.9	49		10	116
		Terphenyl-d14	100	40.9	41		10	105
Q2436-05	TP-84	2-Fluorophenol	150	87.9	59		18	112
		Phenol-d6	150	87.2	58		15	107
		Nitrobenzene-d5	100	55.7	56		18	107

Surrogate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: 8270E

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
Q2436-05	TP-84	2-Fluorobiphenyl	100	52.7	53		20	109
		2,4,6-Tribromophenol	150	81.8	55		10	116
		Terphenyl-d14	100	42.4	42		10	105
Q2436-06	TP-83	2-Fluorophenol	150	76.8	51		18	112
		Phenol-d6	150	78.0	52		15	107
		Nitrobenzene-d5	100	49.9	50		18	107
Q2436-07	TP-87	2-Fluorobiphenyl	100	49.5	49		20	109
		2,4,6-Tribromophenol	150	73.4	49		10	116
		Terphenyl-d14	100	42.1	42		10	105
Q2436-08	TP-100	2-Fluorophenol	150	82.4	55		18	112
		Phenol-d6	150	81.7	54		15	107
		Nitrobenzene-d5	100	53.0	53		18	107
Q2436-09	TP-99	2-Fluorobiphenyl	100	52.0	52		20	109
		2,4,6-Tribromophenol	150	78.7	52		10	116
		Terphenyl-d14	100	42.8	43		10	105
Q2436-10	TP-82	2-Fluorophenol	150	71.1	47		18	112
		Phenol-d6	150	70.6	47		15	107
		Nitrobenzene-d5	100	46.1	46		18	107
		2-Fluorobiphenyl	100	42.2	42		20	109
		2,4,6-Tribromophenol	150	67.6	45		10	116
		Terphenyl-d14	100	32.1	32		10	105
		2-Fluorophenol	150	75.4	50		18	112
		Phenol-d6	150	76.5	51		15	107
		Nitrobenzene-d5	100	46.9	47		18	107
		2-Fluorobiphenyl	100	47.8	48		20	109
		2,4,6-Tribromophenol	150	69.6	46		10	116
		Terphenyl-d14	100	42.6	43		10	105
		2-Fluorophenol	150	80.1	53		18	112
		Phenol-d6	150	78.8	53		15	107
		Nitrobenzene-d5	100	50.9	51		18	107
		2-Fluorobiphenyl	100	53.5	54		20	109
		2,4,6-Tribromophenol	150	74.7	50		10	116
		Terphenyl-d14	100	38.3	38		10	105

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	Q2430-01MS	Client Sample ID:	MH-E/FMS					DataFile:	BF142921.D		
Benzaldehyde	1100	0	650	ug/Kg	59				10	171	
Phenol	1100	0	940	ug/Kg	85				51	122	
bis(2-Chloroethyl)ether	1100	0	980	ug/Kg	89				54	125	
2-Chlorophenol	1100	0	990	ug/Kg	90				51	121	
2-Methylphenol	1100	0	960	ug/Kg	87				47	125	
2,2-oxybis(1-Chloropropane)	1100	0	920	ug/Kg	84				46	119	
Acetophenone	1100	0	1000	ug/Kg	91				55	128	
3+4-Methylphenols	1100	0	1000	ug/Kg	91				49	125	
N-Nitroso-di-n-propylamine	1100	0	990	ug/Kg	90				59	119	
Hexachloroethane	1100	0	1000	ug/Kg	91				51	116	
Nitrobenzene	1100	0	980	ug/Kg	89				47	124	
Isophorone	1100	0	980	ug/Kg	89				49	127	
2-Nitrophenol	1100	0	1000	ug/Kg	91				43	131	
2,4-Dimethylphenol	1100	0	950	ug/Kg	86				63	151	
bis(2-Chloroethoxy)methane	1100	0	990	ug/Kg	90				51	119	
2,4-Dichlorophenol	1100	0	980	ug/Kg	89				50	122	
Naphthalene	1100	0	980	ug/Kg	89				51	121	
4-Chloroaniline	1100	0	250	ug/Kg	23				10	100	
Hexachlorobutadiene	1100	0	1000	ug/Kg	91				44	126	
Caprolactam	1100	0	1000	ug/Kg	91				51	134	
4-Chloro-3-methylphenol	1100	0	980	ug/Kg	89				57	132	
2-Methylnaphthalene	1100	0	990	ug/Kg	90				59	123	
Hexachlorocyclopentadiene	2300	0	1800	ug/Kg	78				10	175	
2,4,6-Trichlorophenol	1100	0	1000	ug/Kg	91				33	141	
2,4,5-Trichlorophenol	1100	0	990	ug/Kg	90				38	135	
1,1-Biphenyl	1100	0	1000	ug/Kg	91				55	131	
2-Chloronaphthalene	1100	0	1000	ug/Kg	91				48	124	
2-Nitroaniline	1100	0	1000	ug/Kg	91				47	134	
Dimethylphthalate	1100	0	1000	ug/Kg	91				54	120	
Acenaphthylene	1100	0	1000	ug/Kg	91				57	125	
2,6-Dinitrotoluene	1100	0	1100	ug/Kg	100				48	127	
3-Nitroaniline	1100	0	450	ug/Kg	41				10	112	
Acenaphthene	1100	0	1100	ug/Kg	100				70	121	
2,4-Dinitrophenol	2300	0	1400	ug/Kg	61				10	155	
4-Nitrophenol	2300	0	1900	ug/Kg	83				10	175	
Dibenzofuran	1100	0	1000	ug/Kg	91				52	114	
2,4-Dinitrotoluene	1100	0	1100	ug/Kg	100				41	140	
Diethylphthalate	1100	0	1100	ug/Kg	100				51	119	
4-Chlorophenyl-phenylether	1100	0	1000	ug/Kg	91				48	122	
Fluorene	1100	0	1000	ug/Kg	91				53	118	
4-Nitroaniline	1100	0	970	ug/Kg	88				29	140	
4,6-Dinitro-2-methylphenol	1100	0	870	ug/Kg	79				10	160	
N-Nitrosodiphenylamine	1100	0	1000	ug/Kg	91				73	118	
4-Bromophenyl-phenylether	1100	0	1000	ug/Kg	91				65	121	
Hexachlorobenzene	1100	0	1000	ug/Kg	91				67	118	
Atrazine	1100	0	1200	ug/Kg	109				45	175	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Pentachlorophenol	2300	0	1800	ug/Kg	78				13	153	
Phenanthrene	1100	0	1000	ug/Kg	91				52	128	
Anthracene	1100	0	1000	ug/Kg	91				62	124	
Carbazole	1100	0	1000	ug/Kg	91				59	119	
Di-n-butylphthalate	1100	0	1200	ug/Kg	109				55	125	
Fluoranthene	1100	0	1000	ug/Kg	91				44	125	
Pyrene	1100	0	950	ug/Kg	86				37	122	
Butylbenzylphthalate	1100	0	1200	ug/Kg	109				44	135	
3,3-Dichlorobenzidine	1100	0	210	ug/Kg	19				15	112	
Benzo(a)anthracene	1100	0	980	ug/Kg	89				53	119	
Chrysene	1100	0	1000	ug/Kg	91				57	121	
bis(2-Ethylhexyl)phthalate	1100	0	1200	ug/Kg	109				42	169	
Di-n-octyl phthalate	1100	0	990	ug/Kg	90				51	156	
Benzo(b)fluoranthene	1100	0	970	ug/Kg	88				52	117	
Benzo(k)fluoranthene	1100	0	1100	ug/Kg	100				57	134	
Benzo(a)pyrene	1100	0	1000	ug/Kg	91				70	142	
Indeno(1,2,3-cd)pyrene	1100	0	920	ug/Kg	84				40	129	
Dibenz(a,h)anthracene	1100	0	920	ug/Kg	84				43	123	
Benzo(g,h,i)perylene	1100	0	900	ug/Kg	82				24	125	
1,2,4,5-Tetrachlorobenzene	1100	0	1000	ug/Kg	91				52	134	
1,4-Dioxane	1100	0	870	ug/Kg	79				46	112	
2,3,4,6-Tetrachlorophenol	1100	0	990	ug/Kg	90				24	146	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	Q2430-01MSD	Client Sample ID:	MH-E/FMSD					DataFile:	BF142922.D		
Benzaldehyde	1100	0	650	ug/Kg	59	2			10	171	20
Phenol	1100	0	940	ug/Kg	85	0			51	122	20
bis(2-Chloroethyl)ether	1100	0	980	ug/Kg	89	1			54	125	20
2-Chlorophenol	1100	0	990	ug/Kg	90	1			51	121	20
2-Methylphenol	1100	0	980	ug/Kg	89	2			47	125	20
2,2-oxybis(1-Chloropropane)	1100	0	910	ug/Kg	83	1			46	119	20
Acetophenone	1100	0	1000	ug/Kg	91	1			55	128	20
3+4-Methylphenols	1100	0	1000	ug/Kg	91	0			49	125	20
N-Nitroso-di-n-propylamine	1100	0	990	ug/Kg	90	1			59	119	20
Hexachloroethane	1100	0	990	ug/Kg	90	0			51	116	20
Nitrobenzene	1100	0	970	ug/Kg	88	1			47	124	20
Isophorone	1100	0	980	ug/Kg	89	2			49	127	20
2-Nitrophenol	1100	0	1000	ug/Kg	91	9			43	131	20
2,4-Dimethylphenol	1100	0	970	ug/Kg	88	3			63	151	20
bis(2-Chloroethoxy)methane	1100	0	980	ug/Kg	89	2			51	119	20
2,4-Dichlorophenol	1100	0	990	ug/Kg	90	1			50	122	20
Naphthalene	1100	0	980	ug/Kg	89	0			51	121	20
4-Chloroaniline	1100	0	340	ug/Kg	31	48	*		10	100	20
Hexachlorobutadiene	1100	0	990	ug/Kg	90	0			44	126	20
Caprolactam	1100	0	1100	ug/Kg	100	9			51	134	20
4-Chloro-3-methylphenol	1100	0	1000	ug/Kg	91	9			57	132	20
2-Methylnaphthalene	1100	0	980	ug/Kg	89	2			59	123	20
Hexachlorocyclopentadiene	2300	0	1800	ug/Kg	78	5			10	175	20
2,4,6-Trichlorophenol	1100	0	970	ug/Kg	88	0			33	141	20
2,4,5-Trichlorophenol	1100	0	960	ug/Kg	87	2			38	135	20
1,1-Biphenyl	1100	0	990	ug/Kg	90	5			55	131	20
2-Chloronaphthalene	1100	0	980	ug/Kg	89	5			48	124	20
2-Nitroaniline	1100	0	1000	ug/Kg	91	0			47	134	20
Dimethylphthalate	1100	0	1000	ug/Kg	91	9			54	120	20
Acenaphthylene	1100	0	980	ug/Kg	89	2			57	125	20
2,6-Dinitrotoluene	1100	0	1000	ug/Kg	91	9			48	127	20
3-Nitroaniline	1100	0	550	ug/Kg	50	2			10	112	20
Acenaphthene	1100	0	1000	ug/Kg	91	1			70	121	20
2,4-Dinitrophenol	2300	0	1500	ug/Kg	65	13			10	155	20
4-Nitrophenol	2300	0	1900	ug/Kg	83	19			10	175	20
Dibenzofuran	1100	0	980	ug/Kg	89	2			52	114	20
2,4-Dinitrotoluene	1100	0	1000	ug/Kg	91	9			41	140	20
Diethylphthalate	1100	0	1100	ug/Kg	100	0			51	119	20
4-Chlorophenyl-phenylether	1100	0	990	ug/Kg	90	1			48	122	20
Fluorene	1100	0	990	ug/Kg	90	0			53	118	20
4-Nitroaniline	1100	0	990	ug/Kg	90	19			29	140	20
4,6-Dinitro-2-methylphenol	1100	0	940	ug/Kg	85	14			10	160	20
N-Nitrosodiphenylamine	1100	0	1000	ug/Kg	91	7			73	118	20
4-Bromophenyl-phenylether	1100	0	1000	ug/Kg	91	4			65	121	20
Hexachlorobenzene	1100	0	1000	ug/Kg	91	6			67	118	20
Atrazine	1100	0	1200	ug/Kg	109	0			45	175	20

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q2436

Client: CDM Smith

Analytical Method: SW8270E

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Pentachlorophenol	2300	0	1800	ug/Kg	78		0		13	153	20
Phenanthrene	1100	0	1000	ug/Kg	91		4		52	128	20
Anthracene	1100	0	1000	ug/Kg	91		4		62	124	20
Carbazole	1100	0	1000	ug/Kg	91		9		59	119	20
Di-n-butylphthalate	1100	0	1200	ug/Kg	109		0		55	125	20
Fluoranthene	1100	0	1000	ug/Kg	91		9		44	125	20
Pyrene	1100	0	950	ug/Kg	86		0		37	122	20
Butylbenzylphthalate	1100	0	1200	ug/Kg	109		15		44	135	20
3,3-Dichlorobenzidine	1100	0	340	ug/Kg	31		14		15	112	20
Benzo(a)anthracene	1100	0	980	ug/Kg	89		2		53	119	20
Chrysene	1100	0	1000	ug/Kg	91		1		57	121	20
bis(2-Ethylhexyl)phthalate	1100	0	1200	ug/Kg	109		0		42	169	20
Di-n-octyl phthalate	1100	0	1000	ug/Kg	91		4		51	156	20
Benzo(b)fluoranthene	1100	0	1100	ug/Kg	100		9		52	117	20
Benzo(k)fluoranthene	1100	0	950	ug/Kg	86		6		57	134	20
Benzo(a)pyrene	1100	0	1000	ug/Kg	91		0		70	142	20
Indeno(1,2,3-cd)pyrene	1100	0	920	ug/Kg	84		27	*	40	129	20
Dibenz(a,h)anthracene	1100	0	910	ug/Kg	83		24	*	43	123	20
Benzo(g,h,i)perylene	1100	0	890	ug/Kg	81		38	*	24	125	20
1,2,4,5-Tetrachlorobenzene	1100	0	990	ug/Kg	90		6		52	134	20
1,4-Dioxane	1100	0	840	ug/Kg	76		1		46	112	20
2,3,4,6-Tetrachlorophenol	1100	0	970	ug/Kg	88		3		24	146	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2436

Analytical Method: 8270E

Client: CDM Smith

DataFile: BF142948.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB168649BS	Benzaldehyde	1700	920	ug/Kg	54				10	133	
	Phenol	1700	1400	ug/Kg	82				62	112	
	bis(2-Chloroethyl)ether	1700	1500	ug/Kg	88				60	101	
	2-Chlorophenol	1700	1500	ug/Kg	88				65	112	
	2-Methylphenol	1700	1400	ug/Kg	82				61	108	
	2,2-oxybis(1-Chloropropane)	1700	1400	ug/Kg	82				51	100	
	Acetophenone	1700	1500	ug/Kg	88				66	98	
	3+4-Methylphenols	1700	1500	ug/Kg	88				58	111	
	N-Nitroso-di-n-propylamine	1700	1500	ug/Kg	88				63	95	
	Hexachloroethane	1700	1500	ug/Kg	88				72	108	
	Nitrobenzene	1700	1500	ug/Kg	88				57	101	
	Isophorone	1700	1500	ug/Kg	88				59	99	
	2-Nitrophenol	1700	1500	ug/Kg	88				61	111	
	2,4-Dimethylphenol	1700	1400	ug/Kg	82				46	141	
	bis(2-Chloroethoxy)methane	1700	1400	ug/Kg	82				66	97	
	2,4-Dichlorophenol	1700	1500	ug/Kg	88				62	107	
	Naphthalene	1700	1500	ug/Kg	88				62	100	
	4-Chloroaniline	1700	730	ug/Kg	43				16	100	
	Hexachlorobutadiene	1700	1500	ug/Kg	88				53	98	
	Caprolactam	1700	1500	ug/Kg	88				67	110	
	4-Chloro-3-methylphenol	1700	1400	ug/Kg	82				58	112	
	2-Methylnaphthalene	1700	1500	ug/Kg	88				60	104	
	Hexachlorocyclopentadiene	3300	3100	ug/Kg	94				45	165	
	2,4,6-Trichlorophenol	1700	1500	ug/Kg	88				59	102	
	2,4,5-Trichlorophenol	1700	1500	ug/Kg	88				61	98	
	1,1-Biphenyl	1700	1500	ug/Kg	88				57	103	
	2-Chloronaphthalene	1700	1500	ug/Kg	88				58	99	
	2-Nitroaniline	1700	1500	ug/Kg	88				66	101	
	Dimethylphthalate	1700	1500	ug/Kg	88				61	99	
	Acenaphthylene	1700	1500	ug/Kg	88				63	101	
	2,6-Dinitrotoluene	1700	1500	ug/Kg	88				61	104	
	3-Nitroaniline	1700	910	ug/Kg	54				28	100	
	Acenaphthene	1700	1600	ug/Kg	94				57	104	
	2,4-Dinitrophenol	3300	3000	ug/Kg	91				37	128	
	4-Nitrophenol	3300	2800	ug/Kg	85				48	119	
	Dibenzofuran	1700	1500	ug/Kg	88				63	99	
	2,4-Dinitrotoluene	1700	1500	ug/Kg	88				60	106	
	Diethylphthalate	1700	1500	ug/Kg	88				60	101	
	4-Chlorophenyl-phenylether	1700	1500	ug/Kg	88				58	98	
	Fluorene	1700	1500	ug/Kg	88				61	101	
	4-Nitroaniline	1700	1400	ug/Kg	82				64	103	
	4,6-Dinitro-2-methylphenol	1700	1500	ug/Kg	88				76	113	
	N-Nitrosodiphenylamine	1700	1600	ug/Kg	94				71	99	
	4-Bromophenyl-phenylether	1700	1600	ug/Kg	94				66	102	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2436

Analytical Method: 8270E

Client: CDM Smith

DataFile: BF142948.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	RPD		Limits		RPD
							Qual	Qual	Low	High	
PB168649BS	Hexachlorobenzene	1700	1600	ug/Kg	94				64	98	
	Atrazine	1700	1700	ug/Kg	100				47	152	
	Pentachlorophenol	3300	2900	ug/Kg	88				67	105	
	Phenanthrene	1700	1500	ug/Kg	88				59	103	
	Anthracene	1700	1500	ug/Kg	88				61	105	
	Carbazole	1700	1500	ug/Kg	88				61	99	
	Di-n-butylphthalate	1700	1700	ug/Kg	100				58	104	
	Fluoranthene	1700	1500	ug/Kg	88				57	107	
	Pyrene	1700	1300	ug/Kg	76				59	103	
	Butylbenzylphthalate	1700	1700	ug/Kg	100				55	103	
	3,3-Dichlorobenzidine	1700	860	ug/Kg	51				42	91	
	Benzo(a)anthracene	1700	1500	ug/Kg	88				60	102	
	Chrysene	1700	1600	ug/Kg	94				59	101	
	bis(2-Ethylhexyl)phthalate	1700	1800	ug/Kg	106				54	135	
	Di-n-octyl phthalate	1700	1800	ug/Kg	106				52	137	
	Benzo(b)fluoranthene	1700	1500	ug/Kg	88				62	109	
	Benzo(k)fluoranthene	1700	1700	ug/Kg	100				62	109	
	Benzo(a)pyrene	1700	1600	ug/Kg	94				63	103	
	Indeno(1,2,3-cd)pyrene	1700	1500	ug/Kg	88				63	101	
	Dibenz(a,h)anthracene	1700	1500	ug/Kg	88				61	112	
	Benzo(g,h,i)perylene	1700	1500	ug/Kg	88				70	108	
	1,2,4,5-Tetrachlorobenzene	1700	1600	ug/Kg	94				53	101	
	1,4-Dioxane	1700	1200	ug/Kg	71				50	96	
	2,3,4,6-Tetrachlorophenol	1700	1500	ug/Kg	88				59	108	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB168649BL

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM Case No.: Q2436

SAS No.: Q2436 SDG NO.: Q2436

Lab File ID: BF142947.D

Lab Sample ID: PB168649BL

Instrument ID: BNA_F

Date Extracted: 06/27/2025

Matrix: (soil/water) SOIL

Date Analyzed: 07/01/2025

Level: (low/med) LOW

Time Analyzed: 13:49

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB168649BS	PB168649BS	BF142948.D	07/01/2025
MH-E/FMS	Q2430-01MS	BF142921.D	06/30/2025
MH-E/FMSD	Q2430-01MSD	BF142922.D	06/30/2025
TP-70	Q2436-01	BF142923.D	06/30/2025
TP-86	Q2436-04	BF142924.D	06/30/2025
TP-69	Q2436-02	BF142932.D	06/30/2025
TP-85	Q2436-03	BF142933.D	07/01/2025
TP-99	Q2436-09	BF142925.D	06/30/2025
TP-83	Q2436-06	BF142927.D	06/30/2025
TP-87	Q2436-07	BF142928.D	06/30/2025
TP-84	Q2436-05	BF142929.D	06/30/2025
TP-100	Q2436-08	BF142930.D	06/30/2025
TP-82	Q2436-10	BF142931.D	06/30/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM

SAS No.: Q2436 SDG NO.: Q2436

Lab File ID: BF142787.D

DFTPP Injection Date: 06/19/2025

Instrument ID: BNA_F

DFTPP Injection Time: 16:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.6 (1.8) 1
69	Mass 69 relative abundance	30.9
70	Less than 2.0% of mass 69	0.1 (0.5) 1
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	5.8
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	15
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.1 (19.1) 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	BF142788.D	06/19/2025	17:07
SSTDICC005	SSTDICC005	BF142789.D	06/19/2025	17:38
SSTDICC010	SSTDICC010	BF142790.D	06/19/2025	18:08
SSTDICC020	SSTDICC020	BF142791.D	06/19/2025	18:39
SSTDICCC040	SSTDICCC040	BF142792.D	06/19/2025	19:09
SSTDICC050	SSTDICC050	BF142793.D	06/19/2025	19:40
SSTDICC060	SSTDICC060	BF142794.D	06/19/2025	20:10
SSTDICC080	SSTDICC080	BF142795.D	06/19/2025	20:40

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM

SAS No.: Q2436 SDG NO.: Q2436

Lab File ID: BF142915.D

DFTPP Injection Date: 06/30/2025

Instrument ID: BNA_F

DFTPP Injection Time: 15:05

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.5 (1.7) 1
69	Mass 69 relative abundance	30
70	Less than 2.0% of mass 69	0.2 (0.7) 1
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	5.9
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.9 (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
SSTDCCC040	SSTDCCC040	BF142916.D	06/30/2025	15:35
MH-E/FMS	Q2430-01MS	BF142921.D	06/30/2025	18:13
MH-E/FMSD	Q2430-01MSD	BF142922.D	06/30/2025	18:43
TP-70	Q2436-01	BF142923.D	06/30/2025	19:13
TP-86	Q2436-04	BF142924.D	06/30/2025	19:44
TP-99	Q2436-09	BF142925.D	06/30/2025	20:14
TP-83	Q2436-06	BF142927.D	06/30/2025	21:15
TP-87	Q2436-07	BF142928.D	06/30/2025	21:45
TP-84	Q2436-05	BF142929.D	06/30/2025	22:15
TP-100	Q2436-08	BF142930.D	06/30/2025	22:45
TP-82	Q2436-10	BF142931.D	06/30/2025	23:15
TP-69	Q2436-02	BF142932.D	06/30/2025	23:45
TP-85	Q2436-03	BF142933.D	07/01/2025	00:15

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM

SAS No.: Q2436 SDG NO.: Q2436

Lab File ID: BF142940.D

DFTPP Injection Date: 07/01/2025

Instrument ID: BNA_F

DFTPP Injection Time: 09:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
68	Less than 2.0% of mass 69	0.4 (1.6) 1
69	Mass 69 relative abundance	27.4
70	Less than 2.0% of mass 69	0.1 (0.5) 1
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	5.6
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	15.3
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	19.4 (19.4) 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	BF142941.D	07/01/2025	10:47
PB168649BL	PB168649BL	BF142947.D	07/01/2025	13:49
PB168649BS	PB168649BS	BF142948.D	07/01/2025	14:20

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG NO.: Q2436

EPA Sample No.: SSTDCCC040 Date Analyzed: 06/30/2025

Lab File ID: BF142916.D Time Analyzed: 15:35

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	68508	6.875	263015	8.16	132502	9.92
UPPER LIMIT	137016	7.375	526030	8.663	265004	10.416
LOWER LIMIT	34254	6.375	131508	7.663	66251	9.416
EPA SAMPLE NO.						
01 MH-E/FMS	63433	6.88	239823	8.16	122332	9.92
02 MH-E/FMSD	69029	6.88	260392	8.16	136177	9.92
03 TP-70	67119	6.87	251731	8.16	128727	9.91
04 TP-69	85276	6.88	304409	8.16	144216	9.92
05 TP-85	65146	6.88	228866	8.16	111359	9.91
06 TP-86	73916	6.88	282423	8.16	144734	9.92
07 TP-84	85331	6.88	316172	8.16	159254	9.92
08 TP-83	66171	6.88	243586	8.16	123597	9.91
09 TP-87	67163	6.87	247558	8.16	123575	9.92
10 TP-100	82922	6.87	301152	8.16	152386	9.91
11 TP-99	60859	6.87	231337	8.16	118257	9.92
12 TP-82	59138	6.88	215117	8.16	105121	9.91

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG NO.: Q2436

EPA Sample No.: SSTDCCC040 Date Analyzed: 06/30/2025

Lab File ID: BF142916.D Time Analyzed: 15:35

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	208976	11.41	119597	14.057	138896	15.545
	UPPER LIMIT	417952	11.91	239194	14.557	277792	16.045
	LOWER LIMIT	104488	10.91	59798.5	13.557	69448	15.045
	EPA SAMPLE NO.						
01	MH-E/FMS	205148	11.40	122398	14.05	140375	15.54
02	MH-E/FMSD	223120	11.40	130553	14.05	155370	15.55
03	TP-70	205881	11.40	122352	14.05	139575	15.54
04	TP-69	213538	11.40	178308	14.05	202825	15.54
05	TP-85	163727	11.40	141022	14.05	150265	15.54
06	TP-86	227000	11.40	138055	14.05	164219	15.54
07	TP-84	249233	11.40	161494	14.05	195795	15.54
08	TP-83	193271	11.40	118249	14.05	142467	15.54
09	TP-87	193646	11.40	120667	14.05	147185	15.54
10	TP-100	226895	11.40	157749	14.05	189699	15.54
11	TP-99	188531	11.40	113906	14.05	131680	15.54
12	TP-82	158342	11.40	117784	14.05	136540	15.54

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.: Q2436 SAS No.: Q2436 SDG NO.: Q2436

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/01/2025

Lab File ID: BF142941.D Time Analyzed: 10:47

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	52800	6.875	192179	8.16	92751	9.92
UPPER LIMIT	105600	7.375	384358	8.657	185502	10.416
LOWER LIMIT	26400	6.375	96089.5	7.657	46375.5	9.416
EPA SAMPLE NO.						
01 PB168649BL	62411	6.88	241848	8.16	125672	9.91
02 PB168649BS	61044	6.88	231195	8.16	114663	9.92

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.: Q2436 SAS No.: Q2436 SDG NO.: Q2436

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/01/2025

Lab File ID: BF142941.D Time Analyzed: 10:47

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	139048	11.404	102522	14.051	129198	15.539
UPPER LIMIT	278096	11.904	205044	14.551	258396	16.039
LOWER LIMIT	69524	10.904	51261	13.551	64599	15.039
EPA SAMPLE NO.						
01 PB168649BL	200491	11.40	116239	14.05	140657	15.54
02 PB168649BS	176464	11.40	114544	14.05	137043	15.54

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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BL	SDG No.:	Q2436
Lab Sample ID:	PB168649BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142947.D	1	06/27/25 11:20	07/01/25 13:49	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	160	U	160	330	ug/Kg
108-95-2	Phenol	22.1	U	22.1	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	24.3	U	24.3	170	ug/Kg
95-57-8	2-Chlorophenol	24.4	U	24.4	170	ug/Kg
95-48-7	2-Methylphenol	29.9	U	29.9	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	37.5	U	37.5	170	ug/Kg
98-86-2	Acetophenone	29.5	U	29.5	170	ug/Kg
65794-96-9	3+4-Methylphenols	41.1	U	41.1	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	47.4	U	47.4	79.9	ug/Kg
67-72-1	Hexachloroethane	17.6	U	17.6	170	ug/Kg
98-95-3	Nitrobenzene	18.3	U	18.3	170	ug/Kg
78-59-1	Isophorone	32.8	U	32.8	170	ug/Kg
88-75-5	2-Nitrophenol	58.1	U	58.1	170	ug/Kg
105-67-9	2,4-Dimethylphenol	64.7	U	64.7	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	30.8	U	30.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	28.3	U	28.3	170	ug/Kg
91-20-3	Naphthalene	22.7	U	22.7	170	ug/Kg
106-47-8	4-Chloroaniline	35.4	U	35.4	170	ug/Kg
87-68-3	Hexachlorobutadiene	25.3	U	25.3	170	ug/Kg
105-60-2	Caprolactam	52.0	U	52.0	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	28.7	U	28.7	170	ug/Kg
91-57-6	2-Methylnaphthalene	25.6	U	25.6	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	120	U	120	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	19.8	U	19.8	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	29.1	U	29.1	170	ug/Kg
92-52-4	1,1-Biphenyl	21.8	U	21.8	170	ug/Kg
91-58-7	2-Chloronaphthalene	22.5	U	22.5	170	ug/Kg
88-74-4	2-Nitroaniline	48.1	U	48.1	170	ug/Kg
131-11-3	Dimethylphthalate	27.1	U	27.1	170	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BL	SDG No.:	Q2436
Lab Sample ID:	PB168649BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142947.D	1	06/27/25 11:20	07/01/25 13:49	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	28.9	U	28.9	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	33.6	U	33.6	170	ug/Kg
99-09-2	3-Nitroaniline	46.0	U	46.0	170	ug/Kg
83-32-9	Acenaphthene	21.3	U	21.3	170	ug/Kg
51-28-5	2,4-Dinitrophenol	230	U	230	330	ug/Kg
100-02-7	4-Nitrophenol	110	U	110	330	ug/Kg
132-64-9	Dibenzofuran	22.7	U	22.7	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	50.0	U	50.0	170	ug/Kg
84-66-2	Diethylphthalate	28.3	U	28.3	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	26.7	U	26.7	170	ug/Kg
86-73-7	Fluorene	25.3	U	25.3	170	ug/Kg
100-01-6	4-Nitroaniline	64.1	U	64.1	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	100	U	100	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	32.9	U	32.9	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	27.8	U	27.8	170	ug/Kg
118-74-1	Hexachlorobenzene	25.3	U	25.3	170	ug/Kg
1912-24-9	Atrazine	34.0	U	34.0	170	ug/Kg
87-86-5	Pentachlorophenol	51.2	U	51.2	330	ug/Kg
85-01-8	Phenanthrene	20.9	U	20.9	170	ug/Kg
120-12-7	Anthracene	33.3	U	33.3	170	ug/Kg
86-74-8	Carbazole	31.2	U	31.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	47.9	U	47.9	170	ug/Kg
206-44-0	Fluoranthene	30.0	U	30.0	170	ug/Kg
129-00-0	Pyrene	36.0	U	36.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	71.3	U	71.3	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	36.7	U	36.7	330	ug/Kg
56-55-3	Benzo(a)anthracene	23.0	U	23.0	170	ug/Kg
218-01-9	Chrysene	19.9	U	19.9	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	59.1	U	59.1	170	ug/Kg
117-84-0	Di-n-octyl phthalate	86.7	U	86.7	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	19.0	U	19.0	170	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BL	SDG No.:	Q2436
Lab Sample ID:	PB168649BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142947.D	1	06/27/25 11:20	07/01/25 13:49	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	22.4	U	22.4	170	ug/Kg
50-32-8	Benzo(a)pyrene	29.5	U	29.5	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	29.1	U	29.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	27.4	U	27.4	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	25.7	U	25.7	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	25.6	U	25.6	170	ug/Kg
123-91-1	1,4-Dioxane	45.2	U	45.2	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	27.4	U	27.4	170	ug/Kg

SURROGATES

367-12-4	2-Fluorophenol	125		18 - 112	84%	SPK: 150
13127-88-3	Phenol-d6	125		15 - 107	83%	SPK: 150
4165-60-0	Nitrobenzene-d5	78.4		18 - 107	78%	SPK: 100
321-60-8	2-Fluorobiphenyl	78.7		20 - 109	79%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		10 - 116	80%	SPK: 150
1718-51-0	Terphenyl-d14	72.0		10 - 105	72%	SPK: 100

INTERNAL STANDARDS

3855-82-1	1,4-Dichlorobenzene-d4	62400	6.875
1146-65-2	Naphthalene-d8	242000	8.157
15067-26-2	Acenaphthene-d10	126000	9.91
1517-22-2	Phenanthrene-d10	200000	11.404
1719-03-5	Chrysene-d12	116000	14.045
1520-96-3	Perylene-d12	141000	15.539

TENTATIVE IDENTIFIED COMPOUNDS

000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	310	A	5.10	ug/Kg
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Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BL	SDG No.:	Q2436
Lab Sample ID:	PB168649BL	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:		Test:	SVOC-TCL BNA -20
Extraction Type :		Decanted :	N
Injection Volume :		Level :	LOW
		GPC Factor :	1.0
		GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142947.D	1	06/27/25 11:20	07/01/25 13:49	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
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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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BS	SDG No.:	Q2436
Lab Sample ID:	PB168649BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142948.D	1	06/27/25 11:20	07/01/25 14:20	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	920		160	330	ug/Kg
108-95-2	Phenol	1400		22.1	170	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1500		24.3	170	ug/Kg
95-57-8	2-Chlorophenol	1500		24.4	170	ug/Kg
95-48-7	2-Methylphenol	1400		29.9	170	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1400		37.5	170	ug/Kg
98-86-2	Acetophenone	1500		29.5	170	ug/Kg
65794-96-9	3+4-Methylphenols	1500		41.1	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1500		47.4	80.0	ug/Kg
67-72-1	Hexachloroethane	1500		17.6	170	ug/Kg
98-95-3	Nitrobenzene	1500		18.3	170	ug/Kg
78-59-1	Isophorone	1500		32.8	170	ug/Kg
88-75-5	2-Nitrophenol	1500		58.2	170	ug/Kg
105-67-9	2,4-Dimethylphenol	1400		64.8	170	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1400		30.8	170	ug/Kg
120-83-2	2,4-Dichlorophenol	1500		28.3	170	ug/Kg
91-20-3	Naphthalene	1500		22.7	170	ug/Kg
106-47-8	4-Chloroaniline	730		35.4	170	ug/Kg
87-68-3	Hexachlorobutadiene	1500		25.3	170	ug/Kg
105-60-2	Caprolactam	1500		52.1	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1400		28.7	170	ug/Kg
91-57-6	2-Methylnaphthalene	1500		25.6	170	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3100	E	120	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1500		19.8	170	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1500		29.1	170	ug/Kg
92-52-4	1,1-Biphenyl	1500		21.8	170	ug/Kg
91-58-7	2-Chloronaphthalene	1500		22.5	170	ug/Kg
88-74-4	2-Nitroaniline	1500		48.1	170	ug/Kg
131-11-3	Dimethylphthalate	1500		27.1	170	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BS	SDG No.:	Q2436
Lab Sample ID:	PB168649BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142948.D	1	06/27/25 11:20	07/01/25 14:20	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1500		28.9	170	ug/Kg
606-20-2	2,6-Dinitrotoluene	1500		33.6	170	ug/Kg
99-09-2	3-Nitroaniline	910		46.0	170	ug/Kg
83-32-9	Acenaphthene	1600		21.3	170	ug/Kg
51-28-5	2,4-Dinitrophenol	3000	E	230	330	ug/Kg
100-02-7	4-Nitrophenol	2800	E	110	330	ug/Kg
132-64-9	Dibenzofuran	1500		22.7	170	ug/Kg
121-14-2	2,4-Dinitrotoluene	1500		50.1	170	ug/Kg
84-66-2	Diethylphthalate	1500		28.3	170	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1500		26.7	170	ug/Kg
86-73-7	Fluorene	1500		25.3	170	ug/Kg
100-01-6	4-Nitroaniline	1400		64.2	170	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1500		100	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1600		32.9	170	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1600		27.8	170	ug/Kg
118-74-1	Hexachlorobenzene	1600		25.3	170	ug/Kg
1912-24-9	Atrazine	1700		34.0	170	ug/Kg
87-86-5	Pentachlorophenol	2900	E	51.3	330	ug/Kg
85-01-8	Phenanthrene	1500		20.9	170	ug/Kg
120-12-7	Anthracene	1500		33.3	170	ug/Kg
86-74-8	Carbazole	1500		31.2	170	ug/Kg
84-74-2	Di-n-butylphthalate	1700		47.9	170	ug/Kg
206-44-0	Fluoranthene	1500		30.0	170	ug/Kg
129-00-0	Pyrene	1300		36.0	170	ug/Kg
85-68-7	Butylbenzylphthalate	1700		71.4	170	ug/Kg
91-94-1	3,3-Dichlorobenzidine	860		36.7	330	ug/Kg
56-55-3	Benzo(a)anthracene	1500		23.0	170	ug/Kg
218-01-9	Chrysene	1600		19.9	170	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1800		59.2	170	ug/Kg
117-84-0	Di-n-octyl phthalate	1800		86.8	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1500		19.0	170	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168649BS	SDG No.:	Q2436
Lab Sample ID:	PB168649BS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142948.D	1	06/27/25 11:20	07/01/25 14:20	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1700		22.4	170	ug/Kg
50-32-8	Benzo(a)pyrene	1600		29.5	170	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1500		29.1	170	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1500		27.4	170	ug/Kg
191-24-2	Benzo(g,h,i)perylene	1500		25.7	170	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1600		25.6	170	ug/Kg
123-91-1	1,4-Dioxane	1200		45.2	170	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1500		27.4	170	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	128		18 - 112	86%	SPK: 150
13127-88-3	Phenol-d6	126		15 - 107	84%	SPK: 150
4165-60-0	Nitrobenzene-d5	79.9		18 - 107	80%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.0		20 - 109	84%	SPK: 100
118-79-6	2,4,6-Tribromophenol	126		10 - 116	84%	SPK: 150
1718-51-0	Terphenyl-d14	71.8		10 - 105	72%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	61000	6.875			
1146-65-2	Naphthalene-d8	231000	8.157			
15067-26-2	Acenaphthene-d10	115000	9.916			
1517-22-2	Phenanthrene-d10	176000	11.404			
1719-03-5	Chrysene-d12	115000	14.051			
1520-96-3	Perylene-d12	137000	15.539			

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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMS	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142921.D	1	06/27/25 11:20	06/30/25 18:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	650		110	220	ug/Kg
108-95-2	Phenol	940		15.0	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	980		16.5	120	ug/Kg
95-57-8	2-Chlorophenol	990		16.6	120	ug/Kg
95-48-7	2-Methylphenol	960		20.3	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	920		25.5	120	ug/Kg
98-86-2	Acetophenone	1000		20.0	120	ug/Kg
65794-96-9	3+4-Methylphenols	1000		27.9	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	990		32.2	54.3	ug/Kg
67-72-1	Hexachloroethane	1000		12.0	120	ug/Kg
98-95-3	Nitrobenzene	980		12.4	120	ug/Kg
78-59-1	Isophorone	980		22.3	120	ug/Kg
88-75-5	2-Nitrophenol	1000		39.5	120	ug/Kg
105-67-9	2,4-Dimethylphenol	950		44.0	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	990		20.9	120	ug/Kg
120-83-2	2,4-Dichlorophenol	980		19.2	120	ug/Kg
91-20-3	Naphthalene	980		15.4	120	ug/Kg
106-47-8	4-Chloroaniline	250		24.0	120	ug/Kg
87-68-3	Hexachlorobutadiene	1000		17.2	120	ug/Kg
105-60-2	Caprolactam	1000		35.4	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	980		19.5	120	ug/Kg
91-57-6	2-Methylnaphthalene	990		17.4	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800	E	78.8	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1000		13.5	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	990		19.8	120	ug/Kg
92-52-4	1,1-Biphenyl	1000		14.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	1000		15.3	120	ug/Kg
88-74-4	2-Nitroaniline	1000		32.7	120	ug/Kg
131-11-3	Dimethylphthalate	1000		18.4	120	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMS	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142921.D	1	06/27/25 11:20	06/30/25 18:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	1000		19.6	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100		22.8	120	ug/Kg
99-09-2	3-Nitroaniline	450		31.2	120	ug/Kg
83-32-9	Acenaphthene	1100		14.5	120	ug/Kg
51-28-5	2,4-Dinitrophenol	1400		160	220	ug/Kg
100-02-7	4-Nitrophenol	1900	E	72.7	220	ug/Kg
132-64-9	Dibenzofuran	1000		15.4	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100		34.0	120	ug/Kg
84-66-2	Diethylphthalate	1100		19.2	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1000		18.1	120	ug/Kg
86-73-7	Fluorene	1000		17.2	120	ug/Kg
100-01-6	4-Nitroaniline	970		43.6	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	870		70.0	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1000		22.3	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000		18.9	120	ug/Kg
118-74-1	Hexachlorobenzene	1000		17.2	120	ug/Kg
1912-24-9	Atrazine	1200		23.1	120	ug/Kg
87-86-5	Pentachlorophenol	1800	E	34.8	220	ug/Kg
85-01-8	Phenanthrene	1000		14.2	120	ug/Kg
120-12-7	Anthracene	1000		22.6	120	ug/Kg
86-74-8	Carbazole	1000		21.2	120	ug/Kg
84-74-2	Di-n-butylphthalate	1200		32.5	120	ug/Kg
206-44-0	Fluoranthene	1000		20.4	120	ug/Kg
129-00-0	Pyrene	950		24.5	120	ug/Kg
85-68-7	Butylbenzylphthalate	1200		48.5	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	210	J	24.9	220	ug/Kg
56-55-3	Benzo(a)anthracene	980		15.6	120	ug/Kg
218-01-9	Chrysene	1000		13.5	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		40.2	120	ug/Kg
117-84-0	Di-n-octyl phthalate	990		59.0	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	970		12.9	120	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMS	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MS	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142921.D	1	06/27/25 11:20	06/30/25 18:13	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	1100		15.2	120	ug/Kg
50-32-8	Benzo(a)pyrene	1000		20.0	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	920		19.8	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	920		18.6	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	900		17.5	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1000		17.4	120	ug/Kg
123-91-1	1,4-Dioxane	870		30.7	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	990		18.6	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	90.0		18 - 112	60%	SPK: 150
13127-88-3	Phenol-d6	90.3		15 - 107	60%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.0		18 - 107	57%	SPK: 100
321-60-8	2-Fluorobiphenyl	57.5		20 - 109	57%	SPK: 100
118-79-6	2,4,6-Tribromophenol	94.2		10 - 116	63%	SPK: 150
1718-51-0	Terphenyl-d14	53.9		10 - 105	54%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	63400	6.875			
1146-65-2	Naphthalene-d8	240000	8.157			
15067-26-2	Acenaphthene-d10	122000	9.916			
1517-22-2	Phenanthrene-d10	205000	11.404			
1719-03-5	Chrysene-d12	122000	14.051			
1520-96-3	Perylene-d12	140000	15.539			

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:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMSD	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142922.D	1	06/27/25 11:20	06/30/25 18:43	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
100-52-7	Benzaldehyde	650		110	220	ug/Kg
108-95-2	Phenol	940		15.0	120	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	980		16.5	120	ug/Kg
95-57-8	2-Chlorophenol	990		16.6	120	ug/Kg
95-48-7	2-Methylphenol	980		20.3	120	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	910		25.5	120	ug/Kg
98-86-2	Acetophenone	1000		20.0	120	ug/Kg
65794-96-9	3+4-Methylphenols	1000		27.9	220	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	990		32.2	54.3	ug/Kg
67-72-1	Hexachloroethane	990		12.0	120	ug/Kg
98-95-3	Nitrobenzene	970		12.4	120	ug/Kg
78-59-1	Isophorone	980		22.3	120	ug/Kg
88-75-5	2-Nitrophenol	1000		39.5	120	ug/Kg
105-67-9	2,4-Dimethylphenol	970		44.0	120	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	980		20.9	120	ug/Kg
120-83-2	2,4-Dichlorophenol	990		19.2	120	ug/Kg
91-20-3	Naphthalene	980		15.4	120	ug/Kg
106-47-8	4-Chloroaniline	340		24.0	120	ug/Kg
87-68-3	Hexachlorobutadiene	990		17.2	120	ug/Kg
105-60-2	Caprolactam	1100		35.4	220	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1000		19.5	120	ug/Kg
91-57-6	2-Methylnaphthalene	980		17.4	120	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800	E	78.8	220	ug/Kg
88-06-2	2,4,6-Trichlorophenol	970		13.4	120	ug/Kg
95-95-4	2,4,5-Trichlorophenol	960		19.8	120	ug/Kg
92-52-4	1,1-Biphenyl	990		14.8	120	ug/Kg
91-58-7	2-Chloronaphthalene	980		15.3	120	ug/Kg
88-74-4	2-Nitroaniline	1000		32.7	120	ug/Kg
131-11-3	Dimethylphthalate	1000		18.4	120	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMSD	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142922.D	1	06/27/25 11:20	06/30/25 18:43	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
208-96-8	Acenaphthylene	980		19.6	120	ug/Kg
606-20-2	2,6-Dinitrotoluene	1000		22.8	120	ug/Kg
99-09-2	3-Nitroaniline	550		31.2	120	ug/Kg
83-32-9	Acenaphthene	1000		14.5	120	ug/Kg
51-28-5	2,4-Dinitrophenol	1500		160	220	ug/Kg
100-02-7	4-Nitrophenol	1900	E	72.7	220	ug/Kg
132-64-9	Dibenzofuran	980		15.4	120	ug/Kg
121-14-2	2,4-Dinitrotoluene	1000		34.0	120	ug/Kg
84-66-2	Diethylphthalate	1100		19.2	120	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	990		18.1	120	ug/Kg
86-73-7	Fluorene	990		17.2	120	ug/Kg
100-01-6	4-Nitroaniline	990		43.6	120	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	940		69.9	220	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1000		22.3	120	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1000		18.9	120	ug/Kg
118-74-1	Hexachlorobenzene	1000		17.2	120	ug/Kg
1912-24-9	Atrazine	1200		23.1	120	ug/Kg
87-86-5	Pentachlorophenol	1800	E	34.8	220	ug/Kg
85-01-8	Phenanthrene	1000		14.2	120	ug/Kg
120-12-7	Anthracene	1000		22.6	120	ug/Kg
86-74-8	Carbazole	1000		21.2	120	ug/Kg
84-74-2	Di-n-butylphthalate	1200		32.5	120	ug/Kg
206-44-0	Fluoranthene	1000		20.4	120	ug/Kg
129-00-0	Pyrene	950		24.4	120	ug/Kg
85-68-7	Butylbenzylphthalate	1200		48.5	120	ug/Kg
91-94-1	3,3-Dichlorobenzidine	340		24.9	220	ug/Kg
56-55-3	Benzo(a)anthracene	980		15.6	120	ug/Kg
218-01-9	Chrysene	1000		13.5	120	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		40.2	120	ug/Kg
117-84-0	Di-n-octyl phthalate	1000		58.9	220	ug/Kg
205-99-2	Benzo(b)fluoranthene	1100		12.9	120	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	06/26/25
Project:	South River WM Replacement	Date Received:	06/26/25
Client Sample ID:	MH-E/FMSD	SDG No.:	Q2436
Lab Sample ID:	Q2430-01MSD	Matrix:	SOIL
Analytical Method:	8270E	% Solid:	88.2
Sample Wt/Vol:	50.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF142922.D	1	06/27/25 11:20	06/30/25 18:43	PB168649

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
207-08-9	Benzo(k)fluoranthene	950		15.2	120	ug/Kg
50-32-8	Benzo(a)pyrene	1000		20.0	120	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	920		19.8	120	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	910		18.6	120	ug/Kg
191-24-2	Benzo(g,h,i)perylene	890		17.5	120	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	990		17.4	120	ug/Kg
123-91-1	1,4-Dioxane	840		30.7	120	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	970		18.6	120	ug/Kg
SURROGATES						
367-12-4	2-Fluorophenol	89.4		18 - 112	60%	SPK: 150
13127-88-3	Phenol-d6	90.0		15 - 107	60%	SPK: 150
4165-60-0	Nitrobenzene-d5	56.7		18 - 107	57%	SPK: 100
321-60-8	2-Fluorobiphenyl	55.7		20 - 109	56%	SPK: 100
118-79-6	2,4,6-Tribromophenol	93.7		10 - 116	62%	SPK: 150
1718-51-0	Terphenyl-d14	53.5		10 - 105	53%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	69000	6.875			
1146-65-2	Naphthalene-d8	260000	8.157			
15067-26-2	Acenaphthene-d10	136000	9.916			
1517-22-2	Phenanthrene-d10	223000	11.404			
1719-03-5	Chrysene-d12	131000	14.051			
1520-96-3	Perylene-d12	155000	15.545			

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_F\Methods\
 Method File : 8270-BF061925.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Fri Jun 20 05:06:14 2025
 Response Via : Initial Calibration

Calibration Files

2.5 =BF142788.D 5 =BF142789.D 10 =BF142790.D 20 =BF142791.D 40 =BF142792.D 50 =BF142793.D 60 =BF142794.D 80 =BF142795.D

Compound	2.5	5	10	20	40	50	60	80	Avg	%RSD

1) I 1,4-Dichlorobenzen...	-----ISTD-----									
2) 1,4-Dioxane		0.479	0.499	0.471	0.461	0.509	0.479	0.467	0.480	3.60
3) Pyridine		1.190	1.195	1.190	1.164	1.303	1.209	1.181	1.205	3.78
4) n-Nitrosodimet...			0.610	0.617	0.596	0.668	0.632	0.614	0.623	3.98
5) S 2-Fluorophenol		2.475	2.460	2.460	2.299	2.525	2.342	2.256	2.403	4.26
6) Aniline		1.951	1.944	1.891	1.818	1.982	1.869	1.746	1.886	4.41
7) S Phenol-d6		3.024	2.962	2.846	2.681	2.959	2.760	2.610	2.834	5.53
8) 2-Chlorophenol		1.362	1.303	1.292	1.245	1.366	1.272	1.231	1.296	4.08
9) Benzaldehyde			0.988	0.943	0.757	0.832	0.684		0.841	15.02
10) C Phenol		1.648	1.653	1.591	1.516	1.651	1.530	1.437	1.575	5.31
11) bis(2-Chloroet...		1.167	1.133	1.134	1.072	1.183	1.116	1.077	1.126	3.71
12) 1,3-Dichlorobe...		1.536	1.499	1.470	1.377	1.500	1.414	1.348	1.449	4.85
13) C 1,4-Dichlorobe...		1.563	1.496	1.472	1.409	1.523	1.425	1.347	1.462	5.04
14) 1,2-Dichlorobe...		1.458	1.422	1.409	1.331	1.451	1.353	1.284	1.387	4.72
15) Benzyl Alcohol			1.023	1.025	0.976	1.106	1.032	0.985	1.025	4.51
16) 2,2'-oxybis(1-...		1.975	1.869	1.815	1.723	1.879	1.758	1.644	1.809	6.12
17) 2-Methylphenol		1.015	0.997	0.980	0.938	1.043	0.972	0.929	0.982	4.13
18) Hexachloroethane		0.533	0.521	0.507	0.499	0.539	0.498	0.484	0.511	3.89
19) P n-Nitroso-di-n...	0.831	0.879	0.840	0.833	0.787	0.847	0.812	0.766	0.824	4.30
20) 3+4-Methylphenols			1.292	1.262	1.176	1.312	1.197	1.108	1.224	6.36

21) I Naphthalene-d8	-----ISTD-----									
22) Acetophenone		0.464	0.451	0.459	0.418	0.461	0.428	0.406	0.441	5.28
23) S Nitrobenzene-d5		0.738	0.724	0.747	0.708	0.771	0.724	0.694	0.729	3.48
24) Nitrobenzene		0.345	0.325	0.332	0.319	0.349	0.326	0.314	0.330	3.88
25) Isophorone		0.611	0.582	0.592	0.555	0.616	0.584	0.554	0.585	4.17
26) C 2-Nitrophenol		0.169	0.172	0.182	0.178	0.194	0.186	0.176	0.180	4.85
27) 2,4-Dimethylph...		0.322	0.310	0.318	0.300	0.329	0.307	0.294	0.311	3.99
28) bis(2-Chloroet...		0.386	0.373	0.383	0.355	0.390	0.366	0.351	0.372	4.09
29) C 2,4-Dichloroph...		0.291	0.280	0.290	0.273	0.298	0.277	0.268	0.282	3.77
30) 1,2,4-Trichlor...		0.324	0.316	0.318	0.299	0.324	0.301	0.292	0.310	4.26
31) Naphthalene		1.051	1.002	1.004	0.934	1.017	0.943	0.902	0.979	5.46
32) Benzoic acid			0.118	0.147	0.157	0.181	0.180	0.169	0.159	15.08
33) 4-Chloroaniline		0.414	0.408	0.409	0.379	0.421	0.393	0.363	0.398	5.26
34) C Hexachlorobuta...		0.195	0.188	0.198	0.184	0.200	0.184	0.179	0.190	4.30
35) Caprolactam			0.073	0.075	0.072	0.081	0.078	0.069	0.075	5.84
36) C 4-Chloro-3-met...		0.300	0.275	0.286	0.269	0.298	0.278	0.260	0.281	5.24
37) 2-Methylnaphth...		0.655	0.621	0.629	0.579	0.631	0.583	0.550	0.607	6.12
38) 1-Methylnaphth...		0.684	0.645	0.650	0.598	0.654	0.604	0.563	0.628	6.56

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
 Method File : 8270-BF061925.M

39) I	Acenaphthene-d10	-----ISTD-----								
40)	1,2,4,5-Tetrac...	0.626	0.609	0.602	0.557	0.598	0.577	0.563	0.590	4.27
41) P	Hexachlorocycl...	0.235	0.308	0.336	0.365	0.376	0.389	0.335		17.02
42) S	2,4,6-Tribromo...	0.415	0.414	0.428	0.400	0.438	0.411	0.374	0.412	4.96
43) C	2,4,6-Trichlor...	0.385	0.380	0.394	0.365	0.408	0.389	0.371	0.385	3.71
44)	2,4,5-Trichlor...	0.407	0.403	0.421	0.391	0.416	0.407	0.388	0.405	2.95
45) S	2-Fluorobiphenyl	3.480	3.272	3.184	2.861	2.999	2.816	2.702	3.045	9.15
46)	1,1'-Biphenyl	1.701	1.616	1.637	1.505	1.609	1.525	1.466	1.580	5.27
47)	2-Chloronaphth...	1.300	1.202	1.208	1.129	1.209	1.145	1.106	1.186	5.50
48)	2-Nitroaniline	0.321	0.329	0.337	0.324	0.358	0.337	0.320	0.332	3.93
49)	Acenaphthylene	2.110	2.006	2.011	1.861	1.995	1.891	1.787	1.952	5.64
50)	Dimethylphthalate	1.372	1.334	1.330	1.228	1.335	1.277	1.186	1.295	5.17
51)	2,6-Dinitrotol...	0.297	0.279	0.290	0.277	0.294	0.284	0.268	0.284	3.57
52) C	Acenaphthene	1.247	1.199	1.241	1.142	1.228	1.172	1.107	1.191	4.44
53)	3-Nitroaniline	0.311	0.311	0.316	0.302	0.338	0.320	0.292	0.313	4.52
54) P	2,4-Dinitrophenol	0.095	0.129	0.142	0.173	0.163	0.152	0.142		19.61
55)	Dibenzofuran	1.844	1.772	1.763	1.626	1.752	1.660	1.537	1.708	6.13
56) P	4-Nitrophenol	0.189	0.218	0.208	0.238	0.229	0.203	0.214		8.25
57)	2,4-Dinitrotol...	0.373	0.378	0.397	0.367	0.407	0.383	0.338	0.378	5.90
58)	Fluorene	1.464	1.412	1.395	1.260	1.362	1.260	1.183	1.334	7.58
59)	2,3,4,6-Tetrac...	0.327	0.327	0.339	0.312	0.345	0.331	0.304	0.326	4.43
60)	Diethylphthalate	1.328	1.302	1.319	1.211	1.318	1.266	1.141	1.269	5.50
61)	4-Chlorophenyl...	0.713	0.656	0.669	0.599	0.640	0.609	0.568	0.636	7.64
62)	4-Nitroaniline	0.279	0.276	0.297	0.272	0.316	0.300	0.264	0.286	6.48
63)	Azobenzene	1.215	1.149	1.167	1.081	1.176	1.122	1.032	1.134	5.47
64) I	Phenanthrene-d10	-----ISTD-----								
65)	4,6-Dinitro-2-...	0.099	0.119	0.119	0.134	0.130	0.125	0.121		10.04
66) c	n-Nitrosodiphe...	0.736	0.686	0.710	0.670	0.717	0.671	0.662	0.693	4.07
67)	4-Bromophenyl-...	0.231	0.221	0.235	0.218	0.236	0.228	0.225	0.228	3.03
68)	Hexachlorobenzene	0.263	0.248	0.257	0.241	0.262	0.252	0.247	0.253	3.29
69)	Atrazine	0.176	0.172	0.180	0.174	0.195	0.183	0.174	0.179	4.48
70) C	Pentachlorophenol	0.102	0.119	0.125	0.142	0.135	0.133	0.126		11.30
71)	Phenanthrene	1.183	1.113	1.115	1.031	1.122	1.028	0.992	1.083	6.24
72)	Anthracene	1.226	1.123	1.149	1.064	1.140	1.065	1.011	1.111	6.35
73)	Carbazole	1.040	0.986	0.999	0.900	1.002	0.920	0.866	0.959	6.67
74)	Di-n-butylphth...	0.997	1.006	1.045	0.946	1.073	0.989	0.936	0.999	4.92
75) C	Fluoranthene	1.136	1.088	1.090	0.954	1.059	0.972	0.899	1.028	8.44
76) I	Chrysene-d12	-----ISTD-----								
77)	Benzidine	0.745	0.860	0.773	0.824	0.719	0.587	0.751		12.71
78)	Pyrene	2.110	1.940	1.968	1.742	2.030	1.863	1.468	1.875	11.43
79) S	Terphenyl-d14	3.383	3.111	3.066	2.655	3.070	2.772	2.208	2.895	13.30
80)	Butylbenzylphth...	0.478	0.470	0.538	0.547	0.613	0.597	0.563	0.544	10.01
81)	Benzo(a)anthra...	1.392	1.358	1.366	1.265	1.403	1.376	1.284	1.349	3.98
82)	3,3'-Dichlorob...	0.398	0.440	0.429	0.476	0.445	0.438	0.438		5.73
83)	Chrysene	1.243	1.191	1.208	1.164	1.295	1.177	1.150	1.204	4.17
84)	Bis(2-ethylhex...	0.650	0.675	0.767	0.803	0.861	0.843	0.878	0.782	11.52
85) c	Di-n-octyl pht...	1.207	1.352	1.463	1.610	1.569	1.651	1.475		11.54

Method Path : Z:\svoasrv\HPCHEM1\BNA_F\Methods\
Method File : 8270-BF061925.M

86) I	Perylene-d12	-----ISTD-----								
87)	Indeno(1,2,3-c...	1.528	1.488	1.545	1.474	1.648	1.539	1.442	1.523	4.38
88)	Benzo(b)fluora...	1.164	1.220	1.226	1.072	1.152	1.197	1.070	1.157	5.61
89)	Benzo(k)fluora...	1.206	1.004	1.035	1.037	1.193	1.038	1.068	1.083	7.55
90) C	Benzo(a)pyrene	1.142	1.065	1.124	1.069	1.201	1.141	1.084	1.118	4.37
91)	Dibenzo(a,h)an...	1.249	1.214	1.293	1.180	1.337	1.240	1.152	1.238	5.13
92)	Benzo(g,h,i)pe...	1.239	1.198	1.266	1.188	1.332	1.255	1.161	1.234	4.66

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CAMP02

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG No.: Q2436

Instrument ID: BNA_F Calibration Date/Time: 06/30/2025 15:35

Lab File ID: BF142916.D Init. Calib. Date(s): 06/19/2025 06/19/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 17:07 20:40

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.201	1.259		4.8	
Benzaldehyde	0.841	0.749		-10.9	
Phenol-d6	1.417	1.469		3.7	
Phenol	1.575	1.622		3.0	20.0
bis(2-Chloroethyl)ether	1.126	1.177		4.5	
2-Chlorophenol	1.296	1.364		5.2	
2-Methylphenol	0.982	1.023		4.2	
2,2-oxybis(1-Chloropropane)	1.809	1.775		-1.9	
Acetophenone	0.441	0.450		2.0	
3+4-Methylphenols	1.224	1.289		5.3	
n-Nitroso-di-n-propylamine	0.824	0.852	0.050	3.4	
Nitrobenzene-d5	0.365	0.436		19.5	
Hexachloroethane	0.511	0.544		6.5	
Nitrobenzene	0.330	0.336		1.8	
Isophorone	0.585	0.582		-0.5	
2-Nitrophenol	0.180	0.189		5.0	20.0
2,4-Dimethylphenol	0.311	0.316		1.6	
bis(2-Chloroethoxy)methane	0.372	0.374		0.5	
2,4-Dichlorophenol	0.282	0.292		3.5	20.0
Naphthalene	0.979	0.992		1.3	
4-Chloroaniline	0.398	0.399		0.3	
Hexachlorobutadiene	0.190	0.198		4.2	20.0
Caprolactam	0.075	0.075		0.0	
4-Chloro-3-methylphenol	0.281	0.281		0.0	20.0
2-Methylnaphthalene	0.607	0.607		0.0	
Hexachlorocyclopentadiene	0.335	0.325	0.050	-3.0	
2,4,6-Trichlorophenol	0.385	0.392		1.8	20.0
2-Fluorobiphenyl	1.522	1.795		17.9	
2,4,5-Trichlorophenol	0.405	0.421		4.0	
1,1-Biphenyl	1.580	1.626		2.9	
2-Chloronaphthalene	1.186	1.221		3.0	
2-Nitroaniline	0.332	0.343		3.3	
Dimethylphthalate	1.295	1.343		3.7	
Acenaphthylene	1.952	2.004		2.7	
2,6-Dinitrotoluene	0.284	0.293		3.2	
3-Nitroaniline	0.313	0.320		2.2	
Acenaphthene	1.191	1.224		2.8	20.0
2,4-Dinitrophenol	0.142	0.137	0.050	-3.5	
4-Nitrophenol	0.214	0.207	0.050	-3.3	

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CAMP02

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG No.: Q2436

Instrument ID: BNA_F Calibration Date/Time: 06/30/2025 15:35

Lab File ID: BF142916.D Init. Calib. Date(s): 06/19/2025 06/19/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 17:07 20:40

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.708	1.735		1.6	
2,4-Dinitrotoluene	0.378	0.392		3.7	
Diethylphthalate	1.269	1.310		3.2	
4-Chlorophenyl-phenylether	0.636	0.652		2.5	
Fluorene	1.334	1.357		1.7	
4-Nitroaniline	0.286	0.291		1.7	
4,6-Dinitro-2-methylphenol	0.121	0.128		5.8	
n-Nitrosodiphenylamine	0.693	0.733		5.8	20.0
2,4,6-Tribromophenol	0.206	0.207		0.5	
4-Bromophenyl-phenylether	0.228	0.244		7.0	
Hexachlorobenzene	0.253	0.265		4.7	
Atrazine	0.179	0.197		10.1	
Pentachlorophenol	0.126	0.124		-1.6	20.0
Phenanthrene	1.083	1.115		3.0	
Anthracene	1.111	1.158		4.2	
Carbazole	0.959	0.985		2.7	
Di-n-butylphthalate	0.999	1.089		9.0	
Fluoranthene	1.028	1.021		-0.7	20.0
Pyrene	1.875	1.763		-6.0	
Terphenyl-d14	1.447	1.557		7.6	
Butylbenzylphthalate	0.544	0.614		12.9	
3,3-Dichlorobenzidine	0.438	0.480		9.6	
Benzo (a) anthracene	1.349	1.401		3.9	
Chrysene	1.204	1.237		2.7	
Bis(2-ethylhexyl)phthalate	0.782	0.891		13.9	
Di-n-octyl phthalate	1.475	1.586		7.5	20.0
Benzo (b) fluoranthene	1.157	1.202		3.9	
Benzo (k) fluoranthene	1.083	1.109		2.4	
Benzo (a) pyrene	1.118	1.174		5.0	20.0
Indeno (1,2,3-cd) pyrene	1.523	1.515		-0.5	
Dibenzo (a,h) anthracene	1.238	1.239		0.1	
Benzo (g,h,i) perylene	1.234	1.215		-1.5	
1,2,4,5-Tetrachlorobenzene	0.590	0.618		4.7	
1,4-Dioxane	0.480	0.489		1.9	20.0
2,3,4,6-Tetrachlorophenol	0.326	0.332		1.8	

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CAMP02

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG No.: Q2436

Instrument ID: BNA_F Calibration Date/Time: 07/01/2025 10:47

Lab File ID: BF142941.D Init. Calib. Date(s): 06/19/2025 06/19/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 17:07 20:40

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.201	1.196		-0.4	
Benzaldehyde	0.841	0.981		16.6	
Phenol-d6	1.417	1.371		-3.2	
Phenol	1.575	1.539		-2.3	20.0
bis(2-Chloroethyl)ether	1.126	1.074		-4.6	
2-Chlorophenol	1.296	1.271		-1.9	
2-Methylphenol	0.982	0.943		-4.0	
2,2-oxybis(1-Chloropropane)	1.809	1.620		-10.4	
Acetophenone	0.441	0.440		-0.2	
3+4-Methylphenols	1.224	1.200		-2.0	
n-Nitroso-di-n-propylamine	0.824	0.752	0.050	-8.7	
Nitrobenzene-d5	0.365	0.388		6.3	
Hexachloroethane	0.511	0.499		-2.3	
Nitrobenzene	0.330	0.317		-3.9	
Isophorone	0.585	0.543		-7.2	
2-Nitrophenol	0.180	0.182		1.1	20.0
2,4-Dimethylphenol	0.311	0.298		-4.2	
bis(2-Chloroethoxy)methane	0.372	0.351		-5.6	
2,4-Dichlorophenol	0.282	0.278		-1.4	20.0
Naphthalene	0.979	0.962		-1.7	
4-Chloroaniline	0.398	0.373		-6.3	
Hexachlorobutadiene	0.190	0.192		1.1	20.0
Caprolactam	0.075	0.066		-12.0	
4-Chloro-3-methylphenol	0.281	0.259		-7.8	20.0
2-Methylnaphthalene	0.607	0.581		-4.3	
Hexachlorocyclopentadiene	0.335	0.285	0.050	-14.9	
2,4,6-Trichlorophenol	0.385	0.386		0.3	20.0
2-Fluorobiphenyl	1.522	1.666		9.5	
2,4,5-Trichlorophenol	0.405	0.387		-4.4	
1,1-Biphenyl	1.580	1.580		0.0	
2-Chloronaphthalene	1.186	1.191		0.4	
2-Nitroaniline	0.332	0.310		-6.6	
Dimethylphthalate	1.295	1.215		-6.2	
Acenaphthylene	1.952	1.921		-1.6	
2,6-Dinitrotoluene	0.284	0.270		-4.9	
3-Nitroaniline	0.313	0.286		-8.6	
Acenaphthene	1.191	1.163		-2.4	20.0
2,4-Dinitrophenol	0.142	0.118	0.050	-16.9	
4-Nitrophenol	0.214	0.170	0.050	-20.6	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: CAMP02

Lab Code: CHEM Case No.: Q2436 SAS No.: Q2436 SDG No.: Q2436

Instrument ID: BNA_F Calibration Date/Time: 07/01/2025 10:47

Lab File ID: BF142941.D Init. Calib. Date(s): 06/19/2025 06/19/2025

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 17:07 20:40

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

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Dibenzofuran	1.708	1.646		-3.6	
2,4-Dinitrotoluene	0.378	0.345		-8.7	
Diethylphthalate	1.269	1.171		-7.7	
4-Chlorophenyl-phenylether	0.636	0.605		-4.9	
Fluorene	1.334	1.252		-6.1	
4-Nitroaniline	0.286	0.264		-7.7	
4,6-Dinitro-2-methylphenol	0.121	0.115		-5.0	
n-Nitrosodiphenylamine	0.693	0.694		0.1	20.0
2,4,6-Tribromophenol	0.206	0.185		-10.2	
4-Bromophenyl-phenylether	0.228	0.233		2.2	
Hexachlorobenzene	0.253	0.254		0.4	
Atrazine	0.179	0.187		4.5	
Pentachlorophenol	0.126	0.106		-15.9	20.0
Phenanthrene	1.083	1.062		-1.9	
Anthracene	1.111	1.107		-0.4	
Carbazole	0.959	0.938		-2.2	
Di-n-butylphthalate	0.999	1.056		5.7	
Fluoranthene	1.028	1.022		-0.6	20.0
Pyrene	1.875	1.566		-16.5	
Terphenyl-d14	1.447	1.189		-17.8	
Butylbenzylphthalate	0.544	0.580		6.6	
3,3-Dichlorobenzidine	0.438	0.458		4.6	
Benzo (a) anthracene	1.349	1.288		-4.5	
Chrysene	1.204	1.192		-1.0	
Bis(2-ethylhexyl)phthalate	0.782	0.932		19.2	
Di-n-octyl phthalate	1.475	1.697		15.1	20.0
Benzo (b) fluoranthene	1.157	1.116		-3.5	
Benzo (k) fluoranthene	1.083	1.089		0.6	
Benzo (a) pyrene	1.118	1.105		-1.2	20.0
Indeno (1,2,3-cd) pyrene	1.523	1.413		-7.2	
Dibenzo (a,h) anthracene	1.238	1.151		-7.0	
Benzo (g,h,i) perylene	1.234	1.133		-8.2	
1,2,4,5-Tetrachlorobenzene	0.590	0.606		2.7	
1,4-Dioxane	0.480	0.455		-5.2	20.0
2,3,4,6-Tetrachlorophenol	0.326	0.292		-10.4	

All other compounds must meet a minimum RRF of 0.010.