



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 2410426

Client Name: APEX Companies, LLC. - Richmond VA
203 Wylderose Court
Midlothian, VA 23113

Date Received: September 9, 2024 17:02
Date Issued: September 12, 2024 14:39
Project Number: 24009604
Purchase Order:

Submitted To: [REDACTED]

Client Site I.D.: Wilderness WTP

Enclosed are the results of analyses for samples received by the laboratory on 09/09/2024 17:02. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

[REDACTED]

[REDACTED]

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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TNI Accredited
VELAP ID 460021



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-1 Trip Blank Laboratory Sample ID: 24I0426-01
 Grab Date/Time: 08/21/2024 17:35
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	09/11/24 13:45	09/11/24 13:45	TLH
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	09/11/24 13:45	09/11/24 13:45	TLH
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L	C	5.00	1	09/11/24 13:45	09/11/24 13:45	TLH
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-1 Trip Blank Laboratory Sample ID: 24I0426-01
 Grab Date/Time: 08/21/2024 17:35
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Acetone	01	SW8260D	329 ug/L		10.0	1	09/11/24 13:45	09/11/24 13:45	TLH
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	09/11/24 13:45	09/11/24 13:45	TLH
Bromoform	01	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	09/11/24 13:45	09/11/24 13:45	TLH
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	09/11/24 13:45	09/11/24 13:45	TLH
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	09/11/24 13:45	09/11/24 13:45	TLH
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	09/11/24 13:45	09/11/24 13:45	TLH
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	09/11/24 13:45	09/11/24 13:45	TLH
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	09/11/24 13:45	09/11/24 13:45	TLH
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	09/11/24 13:45	09/11/24 13:45	TLH



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-1 Trip Blank	Laboratory Sample ID: 24I0426-01
Grab Date/Time: 08/21/2024 17:35	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D	F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS										
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Styrene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Toluene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1		09/11/24 13:45	09/11/24 13:45	TLH
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1		09/11/24 13:45	09/11/24 13:45	TLH
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1		09/11/24 13:45	09/11/24 13:45	TLH
Surr: 1,2 Dichloroethane d4 (Surr)	01	SW8260D	96.6 %		70-120			09/11/24 13:45	09/11/24 13:45	TLH
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	104 %		75-120			09/11/24 13:45	09/11/24 13:45	TLH
Surr: Dibromofluoromethane (Surr)	01	SW8260D	101 %		70-130			09/11/24 13:45	09/11/24 13:45	TLH
Surr: Toluene-d8 (Surr)	01	SW8260D	101 %		70-130			09/11/24 13:45	09/11/24 13:45	TLH



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1 Laboratory Sample ID: 24I0426-02
 Grab Date/Time: 09/09/2024 12:00
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	09/11/24 14:55	09/11/24 14:55	TLH
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L	C	5.00	1	09/11/24 14:55	09/11/24 14:55	TLH
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1 Laboratory Sample ID: 24I0426-02
 Grab Date/Time: 09/09/2024 12:00
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	09/11/24 14:55	09/11/24 14:55	TLH
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
Bromoform	02	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	09/11/24 14:55	09/11/24 14:55	TLH
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	09/11/24 14:55	09/11/24 14:55	TLH
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	09/11/24 14:55	09/11/24 14:55	TLH
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	09/11/24 14:55	09/11/24 14:55	TLH



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1	Laboratory Sample ID: 24I0426-02
Grab Date/Time: 09/09/2024 12:00	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	09/11/24 14:55	09/11/24 14:55	TLH
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	09/11/24 14:55	09/11/24 14:55	TLH
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	09/11/24 14:55	09/11/24 14:55	TLH
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	09/11/24 14:55	09/11/24 14:55	TLH
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2 Dichloroethane d4 (Surr)	02	SW8260D	95.9 %		70-120		09/11/24 14:55	09/11/24 14:55	TLH
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	105 %		75-120		09/11/24 14:55	09/11/24 14:55	TLH
Surr: Dibromofluoromethane (Surr)	02	SW8260D	98.6 %		70-130		09/11/24 14:55	09/11/24 14:55	TLH
Surr: Toluene-d8 (Surr)	02	SW8260D	101 %		70-130		09/11/24 14:55	09/11/24 14:55	TLH

Semivolatile Organic Compounds by GCMS



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1 Laboratory Sample ID: 24I0426-02
 Grab Date/Time: 09/09/2024 12:00
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1,2,4-Trichlorobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1,2-Dichlorobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1,2-Diphenylhydrazine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1,3-Dichlorobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1,3-Dinitrobenzene	02	SW8270E	<2.50 ug/L		2.50	1	09/11/24 09:30	09/11/24 16:45	BMS
1,4-Dichlorobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
1-Naphthylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,3,4,6-Tetrachlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4,5-Trichlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4,6-Trichlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4-Dichlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4-Dimethylphenol	02	SW8270E	<5.00 ug/L	C	5.00	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4-Dinitrophenol	02	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,4-Dinitrotoluene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,6-Dichlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,6-Dinitrotoluene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Chloronaphthalene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Chlorophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Methylnaphthalene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Naphthylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Nitroaniline	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2-Nitrophenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
3,3'-Dichlorobenzidine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
3-Methylcholanthrene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
3-Nitroaniline	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1	Laboratory Sample ID: 24I0426-02
Grab Date/Time: 09/09/2024 12:00	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
4,6-Dinitro-2-methylphenol	02	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Aminobiphenyl	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Bromophenyl phenyl ether	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Chloroaniline	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Chlorophenyl phenyl ether	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Nitroaniline	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
4-Nitrophenol	02	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
7,12-Dimethylbenz (a) anthracene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Acenaphthene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Acenaphthylene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Acetophenone	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Aniline	02	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Anthracene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzidine	02	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzo (a) anthracene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzo (a) pyrene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzo (b) fluoranthene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzo (g,h,i) perylene	02	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzo (k) fluoranthene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzoic acid	02	SW8270E	<50.0 ug/L	C	50.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Benzyl alcohol	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
bis (2-Chloroethoxy) methane	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
bis (2-Chloroethyl) ether	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
2,2'-Oxybis (1-chloropropane)	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
bis (2-Ethylhexyl) phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1	Laboratory Sample ID: 24I0426-02
Grab Date/Time: 09/09/2024 12:00	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Butyl benzyl phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Chrysene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Dibenz (a,h) anthracene	02	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Dibenz (a,j) acridine	02	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Dibenzofuran	02	SW8270E	<5.00 ug/L		5.00	1	09/11/24 09:30	09/11/24 16:45	BMS
Diethyl phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Dimethyl phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Di-n-butyl phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Di-n-octyl phthalate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Diphenylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Ethyl methanesulfonate	02	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Fluoranthene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Fluorene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Hexachlorobenzene	02	SW8270E	<1.00 ug/L		1.00	1	09/11/24 09:30	09/11/24 16:45	BMS
Hexachlorobutadiene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Hexachlorocyclopentadiene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Hexachloroethane	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Indeno (1,2,3-cd) pyrene	02	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Isophorone	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
m+p-Cresols	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Methyl methanesulfonate	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Naphthalene	02	SW8270E	<5.00 ug/L		5.00	1	09/11/24 09:30	09/11/24 16:45	BMS
Nitrobenzene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
n-Nitrosodimethylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
n-Nitrosodi-n-butylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
n-Nitrosodi-n-propylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-2 Wet Well #1	Laboratory Sample ID: 24I0426-02
Grab Date/Time: 09/09/2024 12:00	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
n-Nitrosodiphenylamine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
n-Nitrosopiperidine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
o+m+p-Cresols	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
o-Cresol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
p-(Dimethylamino) azobenzene	02	SW8270E	<2.50 ug/L		2.50	1	09/11/24 09:30	09/11/24 16:45	BMS
p-Chloro-m-cresol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Pentachloronitrobenzene (quintozene)	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Pentachlorophenol	02	SW8270E	<20.0 ug/L	C	20.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Phenacetin	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Phenanthrene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Phenol	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Pronamide	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Pyrene	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Pyridine	02	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 16:45	BMS
Surr: 2,4,6-Tribromophenol (Surr)	02	SW8270E	59.1 %		5-136		09/11/24 09:30	09/11/24 16:45	BMS
Surr: 2-Fluorobiphenyl (Surr)	02	SW8270E	43.7 %		9-117		09/11/24 09:30	09/11/24 16:45	BMS
Surr: 2-Fluorophenol (Surr)	02	SW8270E	27.5 %		5-60		09/11/24 09:30	09/11/24 16:45	BMS
Surr: Nitrobenzene-d5 (Surr)	02	SW8270E	57.0 %		5-151		09/11/24 09:30	09/11/24 16:45	BMS
Surr: Phenol-d5 (Surr)	02	SW8270E	19.5 %		5-60		09/11/24 09:30	09/11/24 16:45	BMS
Surr: p-Terphenyl-d14 (Surr)	02	SW8270E	76.5 %		5-141		09/11/24 09:30	09/11/24 16:45	BMS
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	02	SW8015C	0.603 mg/L		0.543	1	09/11/24 14:00	09/12/24 10:57	CGN
Surr: n-Triacontane (Surr)	02	SW8015C	69.5 %		50-125		09/11/24 14:00	09/12/24 10:57	CGN
TPH-Semi-Volatiles (ORO)	02	SW8015C	<1.1 mg/L		1.1	1	09/11/24 14:00	09/12/24 12:01	CGN



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Certificate of Analysis

Final Report

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Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2 Laboratory Sample ID: 24I0426-03
 Grab Date/Time: 09/09/2024 12:30
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	09/11/24 15:18	09/11/24 15:18	TLH
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L	C	5.00	1	09/11/24 15:18	09/11/24 15:18	TLH
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2 Laboratory Sample ID: 24I0426-03
 Grab Date/Time: 09/09/2024 12:30
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	09/11/24 15:18	09/11/24 15:18	TLH
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
Bromoform	03	SW8260D	<1.00 ug/L	C	1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	09/11/24 15:18	09/11/24 15:18	TLH
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	09/11/24 15:18	09/11/24 15:18	TLH
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	09/11/24 15:18	09/11/24 15:18	TLH
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	09/11/24 15:18	09/11/24 15:18	TLH



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2 Laboratory Sample ID: 24I0426-03
 Grab Date/Time: 09/09/2024 12:30
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Volatile Organic Compounds by GCMS									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	09/11/24 15:18	09/11/24 15:18	TLH
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	09/11/24 15:18	09/11/24 15:18	TLH
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	09/11/24 15:18	09/11/24 15:18	TLH
Surr: 1,2 Dichloroethane d4 (Surr)	03	SW8260D	97.0 %		70-120		09/11/24 15:18	09/11/24 15:18	TLH
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	104 %		75-120		09/11/24 15:18	09/11/24 15:18	TLH
Surr: Dibromofluoromethane (Surr)	03	SW8260D	99.2 %		70-130		09/11/24 15:18	09/11/24 15:18	TLH
Surr: Toluene-d8 (Surr)	03	SW8260D	101 %		70-130		09/11/24 15:18	09/11/24 15:18	TLH

Semivolatile Organic Compounds by GCMS



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2 Laboratory Sample ID: 24I0426-03
 Grab Date/Time: 09/09/2024 12:30
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
1,2,4,5-Tetrachlorobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1,2,4-Trichlorobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1,2-Dichlorobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1,2-Diphenylhydrazine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1,3-Dichlorobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1,3-Dinitrobenzene	03	SW8270E	<2.50 ug/L		2.50	1	09/11/24 09:30	09/11/24 17:18	BMS
1,4-Dichlorobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
1-Naphthylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,3,4,6-Tetrachlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4,5-Trichlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4,6-Trichlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4-Dichlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4-Dimethylphenol	03	SW8270E	<5.00 ug/L	C	5.00	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4-Dinitrophenol	03	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,4-Dinitrotoluene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,6-Dichlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,6-Dinitrotoluene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Chloronaphthalene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Chlorophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Methylnaphthalene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Naphthylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Nitroaniline	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2-Nitrophenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
3,3'-Dichlorobenzidine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
3-Methylcholanthrene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
3-Nitroaniline	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2 Laboratory Sample ID: 24I0426-03
 Grab Date/Time: 09/09/2024 12:30
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
4,6-Dinitro-2-methylphenol	03	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Aminobiphenyl	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Bromophenyl phenyl ether	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Chloroaniline	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Chlorophenyl phenyl ether	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Nitroaniline	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
4-Nitrophenol	03	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
7,12-Dimethylbenz (a) anthracene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Acenaphthene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Acenaphthylene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Acetophenone	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Aniline	03	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Anthracene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzidine	03	SW8270E	<50.0 ug/L		50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzo (a) anthracene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzo (a) pyrene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzo (b) fluoranthene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzo (g,h,i) perylene	03	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzo (k) fluoranthene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzoic acid	03	SW8270E	<50.0 ug/L	C	50.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Benzyl alcohol	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
bis (2-Chloroethoxy) methane	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
bis (2-Chloroethyl) ether	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
2,2'-Oxybis (1-chloropropane)	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
bis (2-Ethylhexyl) phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2	Laboratory Sample ID: 24I0426-03
Grab Date/Time: 09/09/2024 12:30	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
Butyl benzyl phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Chrysene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Dibenz (a,h) anthracene	03	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Dibenz (a,j) acridine	03	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Dibenzofuran	03	SW8270E	<5.00 ug/L		5.00	1	09/11/24 09:30	09/11/24 17:18	BMS
Diethyl phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Dimethyl phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Di-n-butyl phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Di-n-octyl phthalate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Diphenylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Ethyl methanesulfonate	03	SW8270E	<20.0 ug/L		20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Fluoranthene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Fluorene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Hexachlorobenzene	03	SW8270E	<1.00 ug/L		1.00	1	09/11/24 09:30	09/11/24 17:18	BMS
Hexachlorobutadiene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Hexachlorocyclopentadiene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Hexachloroethane	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Indeno (1,2,3-cd) pyrene	03	SW8270E	<10.0 ug/L	C	10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Isophorone	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
m+p-Cresols	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Methyl methanesulfonate	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Naphthalene	03	SW8270E	<5.00 ug/L		5.00	1	09/11/24 09:30	09/11/24 17:18	BMS
Nitrobenzene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
n-Nitrosodimethylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
n-Nitrosodi-n-butylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
n-Nitrosodi-n-propylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Laboratory Order ID: 24I0426

Analytical Results

Sample I.D. 9924604-3 Wet Well #2	Laboratory Sample ID: 24I0426-03
Grab Date/Time: 09/09/2024 12:30	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D F	Sample Prep Date/Time	Analysis Date/Time	Analyst
Semivolatile Organic Compounds by GCMS									
n-Nitrosodiphenylamine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
n-Nitrosopiperidine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
o+m+p-Cresols	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
o-Cresol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
p-(Dimethylamino) azobenzene	03	SW8270E	<2.50 ug/L		2.50	1	09/11/24 09:30	09/11/24 17:18	BMS
p-Chloro-m-cresol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Pentachloronitrobenzene (quintozene)	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Pentachlorophenol	03	SW8270E	<20.0 ug/L	C	20.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Phenacetin	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Phenanthrene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Phenol	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Pronamide	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Pyrene	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Pyridine	03	SW8270E	<10.0 ug/L		10.0	1	09/11/24 09:30	09/11/24 17:18	BMS
Surr: 2,4,6-Tribromophenol (Surr)	03	SW8270E	60.4 %		5-136		09/11/24 09:30	09/11/24 17:18	BMS
Surr: 2-Fluorobiphenyl (Surr)	03	SW8270E	51.9 %		9-117		09/11/24 09:30	09/11/24 17:18	BMS
Surr: 2-Fluorophenol (Surr)	03	SW8270E	31.7 %		5-60		09/11/24 09:30	09/11/24 17:18	BMS
Surr: Nitrobenzene-d5 (Surr)	03	SW8270E	69.0 %		5-151		09/11/24 09:30	09/11/24 17:18	BMS
Surr: Phenol-d5 (Surr)	03	SW8270E	22.0 %		5-60		09/11/24 09:30	09/11/24 17:18	BMS
Surr: p-Terphenyl-d14 (Surr)	03	SW8270E	74.3 %		5-141		09/11/24 09:30	09/11/24 17:18	BMS
Semivolatile Hydrocarbons by GC									
TPH-Semi-Volatiles (DRO)	03	SW8015C	1.06 mg/L		0.543	1	09/11/24 14:00	09/12/24 11:19	CGN
Surr: n-Triacontane (Surr)	03	SW8015C	69.8 %		50-125		09/11/24 14:00	09/12/24 11:19	CGN
TPH-Semi-Volatiles (ORO)	03	SW8015C	1.5 mg/L		1.1	1	09/11/24 14:00	09/12/24 12:32	CGN



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Submitted To: Midlothian VA, 23113
 Client Site I.D.: Wilderness WTP

Laboratory Order ID: 24I0426

Analytical Summary

Administrative

Preparation Method:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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Semivolatle Hydrocarbons by GC

Preparation Method: SW3510C/EPA600-FID

24I0426-02	460 mL / 0.500 mL	SW8015C	BHI0412	SHI0425	AI40174
24I0426-03	460 mL / 0.500 mL	SW8015C	BHI0412	SHI0425	AI40174

Semivolatle Hydrocarbons by GC

Preparation Method: SW3510C/EPA600-FID

24I0426-02	460 mL / 0.500 mL	SW8015C	BHI0414	SHI0422	AI40151
24I0426-03	460 mL / 0.500 mL	SW8015C	BHI0414	SHI0422	AI40151

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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Semivolatle Organic Compounds by GCMS

Preparation Method: SW3510C/EPA600-MS

24I0426-02	1070 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174
24I0426-03	1070 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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Volatile Organic Compounds by GCMS

Preparation Method: SW5030B-MS

24I0426-01	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
24I0426-02	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
24I0426-03	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309



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Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Hydrocarbons by GC			Preparation Method:	SW3510C/EPA600-FID	
BHI0412-BLK1	1000 mL / 1.00 mL	SW8015C	BHI0412	SHI0425	AI40174
BHI0412 BS1	1000 mL / 1.00 mL	SW8015C	BHI0412	SHI0425	AI40174
BHI0412-MRL1		SW8015C	BHI0412	SHI0425	AI40174
BHI0414-BLK1	1000 mL / 1.00 mL	SW8015C	BHI0414	SHI0422	AI40151
BHI0414-BS1	1000 mL / 1.00 mL	SW8015C	BHI0414	SHI0422	AI40151
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			Preparation Method:	SW3510C/EPA600-MS	
BHI0383-BLK1	1000 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174
BHI0383-BS1	1000 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174
BHI0383-MS1	1030 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174
BHI0383-MSD1	1030 mL / 1.00 mL	SW8270E	BHI0383	SHI0408	AH40174
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			Preparation Method:	SW5030B-MS	
BHI0403 BLK1	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-BLK2	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-BS1	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-BS2	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-MRL1	5.00 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-MS1	0.250 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309
BHI0403-MSD1	0.250 mL / 5.00 mL	SW8260D	BHI0403	SHI0383	AG40309



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Final Report

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Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Blank (BHI0403-BLK1)

Prepared & Analyzed: 09/11/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							



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 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Blank (BHI0403-BLK1)

Prepared & Analyzed: 09/11/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							



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Certificate of Analysis

Final Report

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 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Blank (BHI0403-BLK1)

Prepared & Analyzed: 09/11/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	48.1		ug/L	50.0		96.2	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.1		ug/L	50.0		104	75-120			
Surr: Dibromofluoromethane (Surr)	49.8		ug/L	50.0		99.7	70-130			
Surr: Toluene-d8 (Surr)	50.0		ug/L	50.0		100	70-130			

LCS (BHI0403-BS1)

Prepared & Analyzed: 09/11/2024

1,1,1,2-Tetrachloroethane	48.5 ug/L	0.4	ug/L	50.0 ug/L	97.0	80-130
1,1,1-Trichloroethane	50.6 ug/L	1	ug/L	50.0 ug/L	101	65-130
1,1,2,2-Tetrachloroethane	49.0 ug/L	0.4	ug/L	50.0 ug/L	98.0	65-130
1,1,2-Trichloroethane	51.2 ug/L	1	ug/L	50.0 ug/L	102	75-125
1,1-Dichloroethane	48.8 ug/L	1	ug/L	50.0 ug/L	97.7	70-135
1,1-Dichloroethylene	47.2 ug/L	1	ug/L	50.0 ug/L	94.5	70-130
1,1-Dichloropropene	49.8 ug/L	1	ug/L	50.0 ug/L	99.6	75-135
1,2,3-Trichlorobenzene	43.1 ug/L	1	ug/L	50.0 ug/L	86.2	55-140
1,2,3-Trichloropropane	46.0 ug/L	1	ug/L	50.0 ug/L	92.0	75-125
1,2,4-Trichlorobenzene	44.2 ug/L	1	ug/L	50.0 ug/L	88.3	65-135
1,2,4-Trimethylbenzene	43.0 ug/L	1	ug/L	50.0 ug/L	86.0	75-130
1,2-Dibromo-3-chloropropane (DBCP)	36.8 ug/L	1	ug/L	50.0 ug/L	73.6	50-130
1,2-Dibromoethane (EDB)	46.0 ug/L	1	ug/L	50.0 ug/L	92.0	80-120
1,2-Dichlorobenzene	48.0 ug/L	0.5	ug/L	50.0 ug/L	96.0	70-120
1,2-Dichloroethane	44.6 ug/L	1	ug/L	50.0 ug/L	89.1	70-130
1,2-Dichloropropane	49.6 ug/L	0.5	ug/L	50.0 ug/L	99.2	75-125
1,3,5-Trimethylbenzene	43.4 ug/L	1	ug/L	50.0 ug/L	86.8	75-125
1,3-Dichlorobenzene	47.2 ug/L	1	ug/L	50.0 ug/L	94.3	75-125
1,3-Dichloropropane	47.1 ug/L	1	ug/L	50.0 ug/L	94.2	75-125



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

LCS (BHI0403-BS1)

Prepared & Analyzed: 09/11/2024

1,4-Dichlorobenzene	46.4 ug/L	1	ug/L	50.0	ug/L	92.8	75-125			
2,2-Dichloropropane	48.5 ug/L	1	ug/L	50.0	ug/L	96.9	70-135			
2-Butanone (MEK)	47.4 ug/L	10	ug/L	50.0	ug/L	94.8	30-150			
2-Chlorotoluene	42.4 ug/L	1	ug/L	50.0	ug/L	84.7	75-125			
2-Hexanone (MBK)	41.8 ug/L	5	ug/L	50.0	ug/L	83.5	55-130			
4-Chlorotoluene	43.4 ug/L	1	ug/L	50.0	ug/L	86.8	75-130			
4-Isopropyltoluene	45.7 ug/L	1	ug/L	50.0	ug/L	91.5	75-130			
4-Methyl-2-pentanone (MIBK)	47.4 ug/L	5	ug/L	50.0	ug/L	94.9	60-135			
Acetone	44.7 ug/L	10	ug/L	50.0	ug/L	89.5	40-140			
Benzene	49.6 ug/L	1	ug/L	50.0	ug/L	99.2	80-120			
Bromobenzene	50.9 ug/L	1	ug/L	50.0	ug/L	102	75-125			
Bromochloromethane	50.0 ug/L	1	ug/L	50.0	ug/L	100	65-130			
Bromodichloromethane	47.5 ug/L	0.5	ug/L	50.0	ug/L	95.1	75-120			
Bromoform	54.9 ug/L	1	ug/L	50.0	ug/L	110	70-130			
Bromomethane	51.6 ug/L	1	ug/L	50.0	ug/L	103	30-145			
Carbon disulfide	55.2 ug/L	10	ug/L	50.0	ug/L	110	35 160			
Carbon tetrachloride	52.9 ug/L	1	ug/L	50.0	ug/L	106	65-140			
Chlorobenzene	48.5 ug/L	1	ug/L	50.0	ug/L	97.1	80 120			
Chloroethane	40.9 ug/L	1	ug/L	50.0	ug/L	81.8	60-135			
Chloroform	46.4 ug/L	0.5	ug/L	50.0	ug/L	92.8	65 135			
Chloromethane	60.0 ug/L	1	ug/L	50.0	ug/L	120	40-125			
cis-1,2-Dichloroethylene	47.8 ug/L	1	ug/L	50.0	ug/L	95.7	70 125			
cis-1,3-Dichloropropene	47.6 ug/L	1	ug/L	50.0	ug/L	95.1	70-130			
Dibromochloromethane	51.4 ug/L	0.5	ug/L	50.0	ug/L	103	60 135			
Dibromomethane	48.3 ug/L	1	ug/L	50.0	ug/L	96.6	75-125			
Dichlorodifluoromethane	80.2 ug/L	1	ug/L	50.0	ug/L	160	30 155			L
Ethylbenzene	46.4 ug/L	1	ug/L	50.0	ug/L	92.8	75-125			
Hexachlorobutadiene	46.5 ug/L	0.8	ug/L	50.0	ug/L	93.0	50 140			
Isopropylbenzene	42.9 ug/L	1	ug/L	50.0	ug/L	85.7	75-125			
m+p Xylenes	94.7 ug/L	2	ug/L	100	ug/L	94.7	75 130			
Methylene chloride	47.4 ug/L	4	ug/L	50.0	ug/L	94.9	55-140			

Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	[REDACTED]	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

LCS (BHI0403-BS1)

Prepared & Analyzed: 09/11/2024

Methyl-t-butyl ether (MTBE)	46.5 ug/L	1	ug/L	50.0	ug/L	93.1	65-125			
Naphthalene	38.3 ug/L	1	ug/L	50.0	ug/L	76.5	55-140			
n-Butylbenzene	42.1 ug/L	1	ug/L	50.0	ug/L	84.3	70-135			
n-Propylbenzene	43.4 ug/L	1	ug/L	50.0	ug/L	86.8	70-130			
o-Xylene	47.2 ug/L	1	ug/L	50.0	ug/L	94.4	80-120			
sec-Butylbenzene	44.6 ug/L	1	ug/L	50.0	ug/L	89.2	70-125			
Styrene	47.3 ug/L	1	ug/L	50.0	ug/L	94.6	65-135			
tert-Butylbenzene	44.4 ug/L	1	ug/L	50.0	ug/L	88.9	70-130			
Tetrachloroethylene (PCE)	52.0 ug/L	1	ug/L	50.0	ug/L	104	45-150			
Toluene	48.2 ug/L	1	ug/L	50.0	ug/L	96.3	75-120			
trans-1,2-Dichloroethylene	47.3 ug/L	1	ug/L	50.0	ug/L	94.7	60-140			
trans-1,3-Dichloropropene	51.7 ug/L	1	ug/L	50.0	ug/L	103	55-140			
Trichloroethylene	52.2 ug/L	1	ug/L	50.0	ug/L	104	70-125			
Trichlorofluoromethane	53.4 ug/L	1	ug/L	50.0	ug/L	107	60-145			
Vinyl chloride	55.4 ug/L	0.5	ug/L	50.0	ug/L	111	50-145			
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	46.5		ug/L	50.0	ug/L	93.0	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.5		ug/L	50.0	ug/L	101	75-120			
Surr: Dibromofluoromethane (Surr)	49.7		ug/L	50.0	ug/L	99.5	70-130			
Surr: Toluene-d8 (Surr)	48.9		ug/L	50.0	ug/L	97.8	70-130			

Matrix Spike (BHI0403-MS1)

Source: 2410458-01

Prepared & Analyzed: 09/11/2024

1,1,1,2-Tetrachloroethane	49.7 ug/L	0.4	ug/L	50.0	<0.4 ug/L	99.4	80-130			
1,1,1-Trichloroethane	48.6 ug/L	1	ug/L	50.0	<1 ug/L	97.2	65-130			
1,1,2,2-Tetrachloroethane	50.3 ug/L	0.4	ug/L	50.0	<0.4 ug/L	101	65-130			
1,1,2-Trichloroethane	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125			
1,1-Dichloroethane	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.9	70-135			
1,1-Dichloroethylene	44.5 ug/L	1	ug/L	50.0	<1 ug/L	89.0	50-145			
1,1-Dichloropropene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.8	75-135			
1,2,3-Trichlorobenzene	45.9 ug/L	1	ug/L	50.0	<1 ug/L	91.8	55-140			
1,2,3-Trichloropropane	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.7	75-125			
1,2,4-Trichlorobenzene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	96.1	65-135			
1,2,4-Trimethylbenzene	42.8 ug/L	1	ug/L	50.0	<1 ug/L	85.7	75-130			



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Matrix Spike (BHI0403-MS1)

Source: 24I0458-01

Prepared & Analyzed: 09/11/2024

1,2-Dibromo-3-chloropropane (DBCP)	38.1 ug/L	1	ug/L	50.0	<1 ug/L	76.2	50-130			
1,2-Dibromoethane (EDB)	47.3 ug/L	1	ug/L	50.0	<1 ug/L	94.6	80-120			
1,2-Dichlorobenzene	48.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	97.3	70-120			
1,2-Dichloroethane	43.5 ug/L	1	ug/L	50.0	<1 ug/L	87.1	70-130			
1,2-Dichloropropane	49.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.5	75-125			
1,3,5-Trimethylbenzene	43.5 ug/L	1	ug/L	50.0	<1 ug/L	86.9	75-124			
1,3-Dichlorobenzene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	95.9	75-125			
1,3-Dichloropropane	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.9	75-125			
1,4-Dichlorobenzene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.2	75-125			
2,2-Dichloropropane	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.6	70-135			
2-Butanone (MEK)	44.7 ug/L	10	ug/L	50.0	<10 ug/L	89.3	30-150			
2-Chlorotoluene	42.9 ug/L	1	ug/L	50.0	<1 ug/L	85.8	75-125			
2-Hexanone (MBK)	42.2 ug/L	5	ug/L	50.0	<5 ug/L	84.5	55-130			
4-Chlorotoluene	43.7 ug/L	1	ug/L	50.0	<1 ug/L	87.3	75-130			
4-Isopropyltoluene	46.6 ug/L	1	ug/L	50.0	<1 ug/L	93.1	75-130			
4 Methyl 2 pentanone (MIBK)	47.7 ug/L	5	ug/L	50.0	5 ug/L	95.4	60 135			
Acetone	41.8 ug/L	10	ug/L	50.0	<10 ug/L	83.6	40-140			
Benzene	48.6 ug/L	1	ug/L	50.0	1 ug/L	97.2	80 120			
Bromobenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
Bromochloromethane	50.2 ug/L	1	ug/L	50.0	1 ug/L	100	65 130			
Bromodichloromethane	46.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	93.3	75-136			
Bromoform	57.6 ug/L	1	ug/L	50.0	1 ug/L	115	70 130			
Bromomethane	47.7 ug/L	1	ug/L	50.0	<1 ug/L	95.4	30-145			
Carbon disulfide	53.0 ug/L	10	ug/L	50.0	10 ug/L	106	35 160			
Carbon tetrachloride	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	65-140			
Chlorobenzene	49.3 ug/L	1	ug/L	50.0	1 ug/L	98.6	80 120			
Chloroethane	36.9 ug/L	1	ug/L	50.0	<1 ug/L	73.8	60-135			
Chloroform	44.4 ug/L	0.5	ug/L	50.0	0.5 ug/L	88.8	65 135			
Chloromethane	52.5 ug/L	1	ug/L	50.0	<1 ug/L	105	40-125			
cis 1,2 Dichloroethylene	46.0 ug/L	1	ug/L	50.0	1 ug/L	91.9	70 125			
cis-1,3-Dichloropropene	47.5 ug/L	1	ug/L	50.0	<1 ug/L	94.9	47-136			



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Matrix Spike (BHI0403-MS1)

Source: 24I0458-01

Prepared & Analyzed: 09/11/2024

Dibromochloromethane	52.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	105	60-135			
Dibromomethane	48.2 ug/L	1	ug/L	50.0	<1 ug/L	96.4	75-125			
Dichlorodifluoromethane	72.3 ug/L	1	ug/L	50.0	<1 ug/L	145	30-155			
Ethylbenzene	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.6	75-125			
Hexachlorobutadiene	49.0 ug/L	0.8	ug/L	50.0	<0.8 ug/L	98.0	50-140			
Isopropylbenzene	43.1 ug/L	1	ug/L	50.0	<1 ug/L	86.2	75-125			
m+p-Xylenes	94.6 ug/L	2	ug/L	100	<2 ug/L	94.6	75-130			
Methylene chloride	47.4 ug/L	4	ug/L	50.0	<4 ug/L	94.8	55-140			
Methyl-t-butyl ether (MTBE)	44.8 ug/L	1	ug/L	50.0	<1 ug/L	89.6	65-125			
Naphthalene	40.8 ug/L	1	ug/L	50.0	<1 ug/L	81.7	55-140			
n-Butylbenzene	43.0 ug/L	1	ug/L	50.0	<1 ug/L	86.1	70-135			
n-Propylbenzene	43.8 ug/L	1	ug/L	50.0	<1 ug/L	87.5	70-130			
o-Xylene	47.2 ug/L	1	ug/L	50.0	<1 ug/L	94.5	80-120			
sec-Butylbenzene	45.2 ug/L	1	ug/L	50.0	<1 ug/L	90.5	70-125			
Styrene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.1	65-135			
tert Butylbenzene	44.8 ug/L	1	ug/L	50.0	1 ug/L	89.6	70-130			
Tetrachloroethylene (PCE)	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	51-231			
Toluene	48.2 ug/L	1	ug/L	50.0	1 ug/L	96.3	75-120			
trans-1,2-Dichloroethylene	44.8 ug/L	1	ug/L	50.0	<1 ug/L	89.6	60-140			
trans 1,3 Dichloropropene	51.4 ug/L	1	ug/L	50.0	1 ug/L	103	55-140			
Trichloroethylene	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	70-125			
Trichlorofluoromethane	50.1 ug/L	1	ug/L	50.0	1 ug/L	100	60-145			
Vinyl chloride	52.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	104	50-145			
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Surr: 1,2 Dichloroethane d4 (Surr)	44.6		ug/L	50.0	ug/L	89.1	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.0		ug/L	50.0	ug/L	102	75-120			
Surr: Dibromofluoromethane (Surr)	48.6		ug/L	50.0	ug/L	97.2	70-130			
Surr: Toluene-d8 (Surr)	48.7		ug/L	50.0	ug/L	97.4	70-130			



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Matrix Spike Dup (BHI0403-MSD1)

Source: 24I0458-01

Prepared & Analyzed: 09/11/2024

1,1,1,2-Tetrachloroethane	51.0 ug/L	0.4	ug/L	50.0	<0.4 ug/L	102	80-130	2.60	30	
1,1,1-Trichloroethane	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.3	65-130	2.10	30	
1,1,2,2-Tetrachloroethane	53.4 ug/L	0.4	ug/L	50.0	<0.4 ug/L	107	65-130	6.05	30	
1,1,2-Trichloroethane	53.4 ug/L	1	ug/L	50.0	<1 ug/L	107	75-125	4.99	30	
1,1-Dichloroethane	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.9	70-135	0.0215	30	
1,1-Dichloroethylene	44.2 ug/L	1	ug/L	50.0	<1 ug/L	88.4	50-145	0.654	30	
1,1-Dichloropropene	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.7	75-135	1.94	30	
1,2,3-Trichlorobenzene	47.0 ug/L	1	ug/L	50.0	<1 ug/L	94.1	55-140	2.50	30	
1,2,3-Trichloropropane	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.6	75-125	4.04	30	
1,2,4-Trichlorobenzene	47.1 ug/L	1	ug/L	50.0	<1 ug/L	94.1	65-135	2.04	30	
1,2,4-Trimethylbenzene	42.6 ug/L	1	ug/L	50.0	<1 ug/L	85.2	75-130	0.585	30	
1,2-Dibromo-3-chloropropane (DBCP)	41.2 ug/L	1	ug/L	50.0	<1 ug/L	82.4	50-130	7.92	30	
1,2-Dibromoethane (EDB)	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	80-120	4.73	30	
1,2-Dichlorobenzene	48.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	96.7	70-120	0.577	30	
1,2-Dichloroethane	44.8 ug/L	1	ug/L	50.0	<1 ug/L	89.7	70-130	2.96	30	
1,2-Dichloropropane	50.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	101	75-125	2.01	30	
1,3,5-Trimethylbenzene	42.5 ug/L	1	ug/L	50.0	<1 ug/L	84.9	75-124	2.30	30	
1,3-Dichlorobenzene	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.1	75-125	0.859	30	
1,3-Dichloropropane	48.5 ug/L	1	ug/L	50.0	<1 ug/L	97.1	75-125	3.37	30	
1,4-Dichlorobenzene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.8	75-125	0.400	30	
2,2-Dichloropropane	47.0 ug/L	1	ug/L	50.0	<1 ug/L	93.9	70-135	1.35	30	
2-Butanone (MEK)	49.1 ug/L	10	ug/L	50.0	<10 ug/L	98.2	30-150		30	
2-Chlorotoluene	42.7 ug/L	1	ug/L	50.0	<1 ug/L	85.5	75-125	0.397	30	
2-Hexanone (MBK)	47.6 ug/L	5	ug/L	50.0	<5 ug/L	95.2	55-130		30	
4-Chlorotoluene	43.4 ug/L	1	ug/L	50.0	<1 ug/L	86.9	75-130	0.482	30	
4-Isopropyltoluene	45.2 ug/L	1	ug/L	50.0	<1 ug/L	90.3	75-130	3.10	30	
4-Methyl-2-pentanone (MIBK)	54.2 ug/L	5	ug/L	50.0	<5 ug/L	108	60-135	12.8	30	
Acetone	48.1 ug/L	10	ug/L	50.0	<10 ug/L	96.2	40-140		30	
Benzene	49.7 ug/L	1	ug/L	50.0	<1 ug/L	99.4	80-120	2.18	30	
Bromobenzene	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	75-125	1.65	30	
Bromochloromethane	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	65-130	0.536	30	



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Matrix Spike Dup (BHI0403-MSD1)

Source: 2410458-01

Prepared & Analyzed: 09/11/2024

Bromodichloromethane	47.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	95.6	75-136	2.46	30	
Bromoform	60.4 ug/L	1	ug/L	50.0	<1 ug/L	121	70-130	4.90	30	
Bromomethane	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.5	30-145	1.99	30	
Carbon disulfide	54.3 ug/L	10	ug/L	50.0	<10 ug/L	109	35-160		30	
Carbon tetrachloride	53.1 ug/L	1	ug/L	50.0	<1 ug/L	106	65-140	0.795	30	
Chlorobenzene	50.3 ug/L	1	ug/L	50.0	<1 ug/L	101	80-120	1.91	30	
Chloroethane	36.1 ug/L	1	ug/L	50.0	<1 ug/L	72.2	60-135	2.27	30	
Chloroform	44.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	89.7	65-135	0.941	30	
Chloromethane	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.1	40-125	6.76	30	
cis-1,2-Dichloroethylene	47.2 ug/L	1	ug/L	50.0	<1 ug/L	94.3	70-125	2.58	30	
cis-1,3-Dichloropropene	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.7	47-136	2.89	30	
Dibromochloromethane	53.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	108	60-135	2.71	30	
Dibromomethane	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125	5.74	30	
Dichlorodifluoromethane	71.3 ug/L	1	ug/L	50.0	<1 ug/L	143	30-155	1.35	30	
Ethylbenzene	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.8	75-125	1.31	30	
Hexachlorobutadiene	49.4 ug/L	0.8	ug/L	50.0	0.8 ug/L	98.9	50-140	0.894	30	
Isopropylbenzene	44.0 ug/L	1	ug/L	50.0	<1 ug/L	87.9	75-125	2.00	30	
m+p Xylenes	95.2 ug/L	2	ug/L	100	2 ug/L	95.2	75-130	0.622	30	
Methylene chloride	47.4 ug/L	4	ug/L	50.0	<4 ug/L	94.8	55-140		30	
Methyl t butyl ether (MTBE)	46.3 ug/L	1	ug/L	50.0	1 ug/L	92.7	65-125	3.31	30	
Naphthalene	41.9 ug/L	1	ug/L	50.0	<1 ug/L	83.9	55-140	2.68	30	
n-Butylbenzene	41.9 ug/L	1	ug/L	50.0	1 ug/L	83.8	70-135	2.73	30	
n-Propylbenzene	43.1 ug/L	1	ug/L	50.0	<1 ug/L	86.3	70-130	1.43	30	
o-Xylene	48.0 ug/L	1	ug/L	50.0	1 ug/L	95.9	80-120	1.49	30	
sec-Butylbenzene	44.5 ug/L	1	ug/L	50.0	<1 ug/L	89.0	70-125	1.63	30	
Styrene	48.1 ug/L	1	ug/L	50.0	1 ug/L	96.1	65-135	1.07	30	
tert-Butylbenzene	44.9 ug/L	1	ug/L	50.0	<1 ug/L	89.7	70-130	0.156	30	
Tetrachloroethylene (PCE)	52.6 ug/L	1	ug/L	50.0	1 ug/L	105	51-231	2.54	30	
Toluene	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.0	75-120	2.78	30	
trans-1,2-Dichloroethylene	44.7 ug/L	1	ug/L	50.0	1 ug/L	89.4	60-140	0.201	30	
trans-1,3-Dichloropropene	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	55-140	2.91	30	



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Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
Submitted To:	██████████	Project Number:	24009604
Client Site I.D.:	Wilderness WTP	Purchase Order:	

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0403 - SW5030B-MS

Matrix Spike Dup (BHI0403-MSD1)	Source: 24I0458-01			Prepared & Analyzed: 09/11/2024						
Trichloroethylene	52.4 ug/L	1	ug/L	50.0	<1 ug/L	105	70-125	1.67	30	
Trichlorofluoromethane	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	60-145	1.59	30	
Vinyl chloride	52.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	104	50-145	0.154	30	
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	44.8		ug/L	50.0	ug/L	89.7	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.5		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	47.7		ug/L	50.0	ug/L	95.4	70-130			
Surr: Toluene-d8 (Surr)	49.0		ug/L	50.0	ug/L	98.0	70-130			



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Blank (BHI0383-BLK1)

Prepared & Analyzed: 09/11/2024

1,2,4,5-Tetrachlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2,4-Trichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2-Diphenylhydrazine	<10.0 ug/L	10.0	ug/L							
1,3-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,3-Dinitrobenzene	<2.50 ug/L	2.50	ug/L							
1,4-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1-Naphthylamine	<10.0 ug/L	10.0	ug/L							
2,3,4,6-Tetrachlorophenol	<10.0 ug/L	10.0	ug/L							
2,4,5-Trichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4,6-Trichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4-Dichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4-Dimethylphenol	<5.00 ug/L	5.00	ug/L							
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L							
2,4-Dinitrotoluene	<10.0 ug/L	10.0	ug/L							
2,6-Dichlorophenol	<10.0 ug/L	10.0	ug/L							
2,6-Dinitrotoluene	<10.0 ug/L	10.0	ug/L							
2-Chloronaphthalene	<10.0 ug/L	10.0	ug/L							
2-Chlorophenol	<10.0 ug/L	10.0	ug/L							
2-Methylnaphthalene	<10.0 ug/L	10.0	ug/L							
2-Naphthylamine	<10.0 ug/L	10.0	ug/L							
2-Nitroaniline	<20.0 ug/L	20.0	ug/L							
2-Nitrophenol	<10.0 ug/L	10.0	ug/L							
3,3'-Dichlorobenzidine	<10.0 ug/L	10.0	ug/L							
3-Methylcholanthrene	<10.0 ug/L	10.0	ug/L							
3-Nitroaniline	<20.0 ug/L	20.0	ug/L							
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L							
4-Aminobiphenyl	<10.0 ug/L	10.0	ug/L							
4-Bromophenyl phenyl ether	<10.0 ug/L	10.0	ug/L							
4-Chloroaniline	<10.0 ug/L	10.0	ug/L							
4-Chlorophenyl phenyl ether	<10.0 ug/L	10.0	ug/L							



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 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Blank (BHI0383-BLK1)

Prepared & Analyzed: 09/11/2024

4-Nitroaniline	<20.0 ug/L	20.0	ug/L							
4-Nitrophenol	<50.0 ug/L	50.0	ug/L							
7,12-Dimethylbenz (a) anthracene	<10.0 ug/L	10.0	ug/L							
Acenaphthene	<10.0 ug/L	10.0	ug/L							
Acenaphthylene	<10.0 ug/L	10.0	ug/L							
Acetophenone	<20.0 ug/L	20.0	ug/L							
Aniline	<50.0 ug/L	50.0	ug/L							
Anthracene	<10.0 ug/L	10.0	ug/L							
Benzidine	<50.0 ug/L	50.0	ug/L							
Benzo (a) anthracene	<10.0 ug/L	10.0	ug/L							
Benzo (a) pyrene	<10.0 ug/L	10.0	ug/L							
Benzo (b) fluoranthene	<10.0 ug/L	10.0	ug/L							
Benzo (g,h,i) perylene	<10.0 ug/L	10.0	ug/L							
Benzo (k) fluoranthene	<10.0 ug/L	10.0	ug/L							
Benzoic acid	<50.0 ug/L	50.0	ug/L							
Benzyl alcohol	<20.0 ug/L	20.0	ug/L							
bis (2-Chloroethoxy) methane	<10.0 ug/L	10.0	ug/L							
bis (2-Chloroethyl) ether	<10.0 ug/L	10.0	ug/L							
2,2'-Oxybis (1-chloropropane)	<10.0 ug/L	10.0	ug/L							
bis (2-Ethylhexyl) phthalate	<10.0 ug/L	10.0	ug/L							
Butyl benzyl phthalate	<10.0 ug/L	10.0	ug/L							
Chrysene	<10.0 ug/L	10.0	ug/L							
Dibenz (a,h) anthracene	<10.0 ug/L	10.0	ug/L							
Dibenz (a,j) acridine	<10.0 ug/L	10.0	ug/L							
Dibenzofuran	<5.00 ug/L	5.00	ug/L							
Diethyl phthalate	<10.0 ug/L	10.0	ug/L							
Dimethyl phthalate	<10.0 ug/L	10.0	ug/L							
Di-n-butyl phthalate	<10.0 ug/L	10.0	ug/L							
Di-n-octyl phthalate	<10.0 ug/L	10.0	ug/L							
Diphenylamine	<10.0 ug/L	10.0	ug/L							
Ethyl methanesulfonate	<20.0 ug/L	20.0	ug/L							



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Certificate of Analysis

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 203 Wylderose Court Project Number: 24009604
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 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Blank (BHI0383-BLK1)

Prepared & Analyzed: 09/11/2024

Fluoranthene	<10.0 ug/L	10.0	ug/L							
Fluorene	<10.0 ug/L	10.0	ug/L							
Hexachlorobenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<10.0 ug/L	10.0	ug/L							
Hexachlorocyclopentadiene	<10.0 ug/L	10.0	ug/L							
Hexachloroethane	<10.0 ug/L	10.0	ug/L							
Indeno (1,2,3-cd) pyrene	<10.0 ug/L	10.0	ug/L							
Isophorone	<10.0 ug/L	10.0	ug/L							
m+p-Cresols	<10.0 ug/L	10.0	ug/L							
Methyl methanesulfonate	<10.0 ug/L	10.0	ug/L							
Naphthalene	<5.00 ug/L	5.00	ug/L							
Nitrobenzene	<10.0 ug/L	10.0	ug/L							
n-Nitrosodimethylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodi-n-butylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodi-n-propylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodiphenylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosopiperidine	<10.0 ug/L	10.0	ug/L							
o+m+p-Cresols	<10.0 ug/L	10.0	ug/L							
o-Cresol	<10.0 ug/L	10.0	ug/L							
p-(Dimethylamino) azobenzene	<2.50 ug/L	2.50	ug/L							
p-Chloro-m-cresol	<10.0 ug/L	10.0	ug/L							
Pentachloronitrobenzene (quintozene)	<10.0 ug/L	10.0	ug/L							
Pentachlorophenol	<20.0 ug/L	20.0	ug/L							
Phenacetin	<10.0 ug/L	10.0	ug/L							
Phenanthrene	<10.0 ug/L	10.0	ug/L							
Phenol	<10.0 ug/L	10.0	ug/L							
Pronamide	<10.0 ug/L	10.0	ug/L							
Pyrene	<10.0 ug/L	10.0	ug/L							
Pyridine	<10.0 ug/L	10.0	ug/L							

Surr: 2,4,6-Tribromophenol (Surr)	61.8		ug/L	100		61.8	5-136			
Surr: 2-Fluorobiphenyl (Surr)	29.4		ug/L	50.0		58.9	9-117			



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 203 Wylderose Court Project Number: 24009604
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 Midlothian VA, 23113
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 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Blank (BHI0383-BLK1)

Prepared & Analyzed: 09/11/2024

Surr: 2-Fluorophenol (Surr)	37.0		ug/L	100		37.0	5-60			
Surr: Nitrobenzene-d5 (Surr)	39.3		ug/L	50.0		78.5	5-151			
Surr: Phenol-d5 (Surr)	27.9		ug/L	100		27.9	5-60			
Surr: p-Terphenyl-d14 (Surr)	49.4		ug/L	50.0		98.8	5-141			

LCS (BHI0383-BS1)

Prepared & Analyzed: 09/11/2024

1,2,4-Trichlorobenzene	35.6 ug/L	10.0	ug/L	50.0	ug/L	71.1	57-130			
1,2-Dichlorobenzene	33.6 ug/L	10.0	ug/L	50.0	ug/L	67.1	22-115			
1,3-Dichlorobenzene	31.9 ug/L	10.0	ug/L	50.0	ug/L	63.7	22-112			
1,4-Dichlorobenzene	35.8 ug/L	10.0	ug/L	50.0	ug/L	71.5	13-112			
2,4,6-Trichlorophenol	34.9 ug/L	10.0	ug/L	50.0	ug/L	69.8	52-129			
2,4-Dichlorophenol	36.6 ug/L	10.0	ug/L	50.0	ug/L	73.2	53-122			
2,4-Dimethylphenol	41.1 ug/L	5.00	ug/L	50.0	ug/L	82.2	42-120			
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	60.8	48-127			
2,4-Dinitrotoluene	46.6 ug/L	10.0	ug/L	50.0	ug/L	93.2	10-173			
2,6-Dinitrotoluene	41.9 ug/L	10.0	ug/L	50.0	ug/L	83.7	68-137			
2-Chloronaphthalene	36.3 ug/L	10.0	ug/L	50.0	ug/L	72.5	65-120			
2-Chlorophenol	33.2 ug/L	10.0	ug/L	50.0	ug/L	66.5	36-120			
2-Nitrophenol	41.4 ug/L	10.0	ug/L	50.0	ug/L	82.7	45-167			
3,3'-Dichlorobenzidine	21.5 ug/L	10.0	ug/L	50.0	ug/L	42.9	10-213			
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	79.0	53-130			
4-Bromophenyl phenyl ether	33.2 ug/L	10.0	ug/L	50.0	ug/L	66.5	65-120			
4-Chlorophenyl phenyl ether	34.4 ug/L	10.0	ug/L	50.0	ug/L	68.9	38-145			
4-Nitrophenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	26.0	13-129			
Acenaphthene	38.3 ug/L	10.0	ug/L	50.0	ug/L	76.6	60-132			
Acenaphthylene	38.4 ug/L	10.0	ug/L	50.0	ug/L	76.8	54-126			
Acetophenone	31.8 ug/L	20.0	ug/L	50.0	ug/L	63.6	0-200			
Anthracene	35.3 ug/L	10.0	ug/L	50.0	ug/L	70.7	43-120			
Benzo (a) anthracene	42.5 ug/L	10.0	ug/L	50.0	ug/L	85.0	42-133			
Benzo (a) pyrene	46.7 ug/L	10.0	ug/L	50.0	ug/L	93.4	32-148			
Benzo (b) fluoranthene	67.7 ug/L	10.0	ug/L	50.0	ug/L	135	42-140			
Benzo (g,h,i) perylene	25.9 ug/L	10.0	ug/L	50.0	ug/L	51.8	10-195			



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 203 Wylderose Court Project Number: 24009604
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 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

LCS (BHI0383-BS1)

Prepared & Analyzed: 09/11/2024

Benzo (k) fluoranthene	62.0 ug/L	10.0	ug/L	50.0	ug/L	124	25-146			
bis (2-Chloroethoxy) methane	36.1 ug/L	10.0	ug/L	50.0	ug/L	72.1	49-165			
bis (2-Chloroethyl) ether	34.9 ug/L	10.0	ug/L	50.0	ug/L	69.9	43-126			
2,2'-Oxybis (1-chloropropane)	35.4 ug/L	10.0	ug/L	50.0	ug/L	70.8	63-139			
bis (2-Ethylhexyl) phthalate	53.7 ug/L	10.0	ug/L	50.0	ug/L	107	29-137			
Butyl benzyl phthalate	49.5 ug/L	10.0	ug/L	50.0	ug/L	99.0	10-140			
Chrysene	41.8 ug/L	10.0	ug/L	50.0	ug/L	83.6	44-140			
Dibenz (a,h) anthracene	26.7 ug/L	10.0	ug/L	50.0	ug/L	53.3	10-200			
Diethyl phthalate	43.1 ug/L	10.0	ug/L	50.0	ug/L	86.1	10-120			
Dimethyl phthalate	38.3 ug/L	10.0	ug/L	50.0	ug/L	76.5	10-120			
Di-n-butyl phthalate	41.6 ug/L	10.0	ug/L	50.0	ug/L	83.2	10-120			
Di-n-octyl phthalate	167 ug/L	10.0	ug/L	50.0	ug/L	333	19-132			L
Fluoranthene	42.9 ug/L	10.0	ug/L	50.0	ug/L	85.8	43-121			
Fluorene	38.8 ug/L	10.0	ug/L	50.0	ug/L	77.7	70-120			
Hexachlorobenzene	32.1 ug/L	1.00	ug/L	50.0	ug/L	64.2	10-142			
Hexachlorobutadiene	41.1 ug/L	10.0	ug/L	50.0	ug/L	82.3	38-120			
Hexachlorocyclopentadiene	28.5 ug/L	10.0	ug/L	50.0	ug/L	57.0	10-76			
Hexachloroethane	40.4 ug/L	10.0	ug/L	50.0	ug/L	80.9	55-120			
Indeno (1,2,3-cd) pyrene	26.4 ug/L	10.0	ug/L	50.0	ug/L	52.8	10-151			
Isophorone	22.3 ug/L	10.0	ug/L	50.0	ug/L	44.6	47-180			L
Naphthalene	34.8 ug/L	5.00	ug/L	50.0	ug/L	69.7	36-120			
Nitrobenzene	41.6 ug/L	10.0	ug/L	50.0	ug/L	83.2	54-158			
n-Nitrosodimethylamine	23.5 ug/L	10.0	ug/L	50.0	ug/L	47.1	10-85			
n Nitrosodi n propylamine	36.3 ug/L	10.0	ug/L	50.0	ug/L	72.6	14-198			
n-Nitrosodiphenylamine	30.0 ug/L	10.0	ug/L	50.0	ug/L	59.9	12-97			
p Chloro m cresol	39.6 ug/L	10.0	ug/L	50.0	ug/L	79.3	10-142			
Pentachloronitrobenzene (quintozene)	<10.0 ug/L	10.0	ug/L		ug/L		0-200			
Pentachlorophenol	22.3 ug/L	20.0	ug/L	50.0	ug/L	44.5	38-152			
Phenanthrene	42.7 ug/L	10.0	ug/L	50.0	ug/L	85.4	65-120			
Phenol	15.9 ug/L	10.0	ug/L	50.5	ug/L	31.5	17-120			
Pyrene	45.3 ug/L	10.0	ug/L	50.0	ug/L	90.5	70-120			



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Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

LCS (BHI0383-BS1)

Prepared & Analyzed: 09/11/2024

Pyridine	20.1 ug/L	10.0	ug/L	50.0	ug/L	40.1	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	71.0		ug/L	100	ug/L	71.0	5-136			
Surr: 2-Fluorobiphenyl (Surr)	31.0		ug/L	50.0	ug/L	62.0	9-117			
Surr: 2-Fluorophenol (Surr)	40.0		ug/L	100	ug/L	40.0	5-60			
Surr: Nitrobenzene-d5 (Surr)	42.2		ug/L	50.0	ug/L	84.3	5-151			
Surr: Phenol-d5 (Surr)	29.7		ug/L	100	ug/L	29.7	5-60			
Surr: p-Terphenyl-d14 (Surr)	45.1		ug/L	50.0	ug/L	90.2	5-141			

Matrix Spike (BHI0383-MS1)

Source: 2410449-01

Prepared & Analyzed: 09/11/2024

1,2,4-Trichlorobenzene	27.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	56.1	44-142			
1,2-Dichlorobenzene	25.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	53.4	22-115			
1,3-Dichlorobenzene	24.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	49.8	22-112			
1,4-Dichlorobenzene	28.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	59.3	13-112			
2,4,6-Trichlorophenol	37.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	77.6	37-144			
2,4-Dichlorophenol	36.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	75.4	39-135			
2,4-Dimethylphenol	38.0 ug/L	5.00	ug/L	48.5	<5.00 ug/L	78.3	32-120			
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	71.1	39-139			
2,4-Dinitrotoluene	47.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	98.3	10-191			
2,6-Dinitrotoluene	43.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	89.9	50-158			
2-Chloronaphthalene	34.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	70.1	60-120			
2-Chlorophenol	33.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	69.5	23-134			
2-Nitrophenol	40.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	83.2	29-182			
3,3'-Dichlorobenzidine	22.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	46.8	10-262			
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	86.0	10-181			
4-Bromophenyl phenyl ether	33.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	69.4	53-127			
4-Chlorophenyl phenyl ether	36.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	74.2	25-158			
4-Nitrophenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	30.9	10-132			
Acenaphthene	37.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	77.0	47-145			
Acenaphthylene	37.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	77.2	33-145			
Acetophenone	31.7 ug/L	20.0	ug/L	48.5	<20.0 ug/L	65.3	0-200			
Anthracene	35.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	73.5	27-133			
Benzo (a) anthracene	40.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	82.6	33-143			



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Matrix Spike (BHI0383-MS1)

Source: 24I0449-01

Prepared & Analyzed: 09/11/2024

Benzo (a) pyrene	45.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	94.6	17-163			
Benzo (b) fluoranthene	61.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	126	24-159			
Benzo (g,h,i) perylene	24.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	49.6	10-219			
Benzo (k) fluoranthene	53.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	110	11-162			
bis (2-Chloroethoxy) methane	36.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	74.1	33-184			
bis (2-Chloroethyl) ether	36.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	74.1	12-158			
2,2'-Oxybis (1-chloropropane)	33.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	69.2	36-166			
bis (2-Ethylhexyl) phthalate	50.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	104	10-158			
Butyl benzyl phthalate	43.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	89.1	10-152			
Chrysene	38.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	78.4	17-169			
Dibenz (a,h) anthracene	24.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	50.8	10-227			
Diethyl phthalate	43.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	89.8	10-120			
Dimethyl phthalate	39.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	81.1	10-120			
Di-n-butyl phthalate	40.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	83.5	10-120			
Di-n-octyl phthalate	113 ug/L	10.0	ug/L	48.5	<10.0 ug/L	232	10-146			M
Fluoranthene	42.0 ug/L	10.0	ug/L	48.5	10.0 ug/L	86.5	26-137			
Fluorene	40.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	83.9	59-121			
Hexachlorobenzene	33.7 ug/L	1.00	ug/L	48.5	1.00 ug/L	69.3	10-152			
Hexachlorobutadiene	30.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	62.8	24-120			
Hexachlorocyclopentadiene	22.1 ug/L	10.0	ug/L	48.5	10.0 ug/L	45.5	10-90			
Hexachloroethane	29.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	61.6	40-120			
Indeno (1,2,3 cd) pyrene	24.3 ug/L	10.0	ug/L	48.5	10.0 ug/L	50.1	10-171			
Isophorone	22.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	45.8	21-196			
Naphthalene	27.2 ug/L	5.00	ug/L	48.5	5.00 ug/L	56.1	21-133			
Nitrobenzene	40.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	84.3	35-180			
n Nitrosodimethylamine	24.2 ug/L	10.0	ug/L	48.5	10.0 ug/L	49.8	10-85			
n-Nitrosodi-n-propylamine	35.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	72.9	10-230			
n-Nitrosodiphenylamine	32.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	66.2	12-111			
p-Chloro-m-cresol	40.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	82.5	10-127			
Pentachloronitrobenzene (quintozene)	<10.0 ug/L	10.0	ug/L		<10.0 ug/L		0-200			
Pentachlorophenol	25.7 ug/L	20.0	ug/L	48.5	<20.0 ug/L	53.0	14-176			



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 203 Wylderose Court Project Number: 24009604
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 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Matrix Spike (BHI0383-MS1)		Source: 24I0449-01		Prepared & Analyzed: 09/11/2024						
Phenanthrene	41.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	86.0	54-120			
Phenol	14.8 ug/L	10.0	ug/L	49.0	<10.0 ug/L	30.1	10-120			
Pyrene	38.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	79.6	52-120			
Pyridine	27.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	56.0	10-110			

Surr: 2,4,6-Tribromophenol (Surr)	72.4		ug/L	97.1	ug/L	74.6	5-136			
Surr: 2-Fluorobiphenyl (Surr)	33.4		ug/L	48.5	ug/L	68.8	9-117			
Surr: 2-Fluorophenol (Surr)	37.9		ug/L	97.1	ug/L	39.0	5-60			
Surr: Nitrobenzene-d5 (Surr)	41.2		ug/L	48.5	ug/L	84.9	5-151			
Surr: Phenol-d5 (Surr)	26.7		ug/L	97.1	ug/L	27.5	5-60			
Surr: p-Terphenyl-d14 (Surr)	35.9		ug/L	48.5	ug/L	73.9	5-141			

Matrix Spike Dup (BHI0383-MSD1)		Source: 24I0449-01		Prepared & Analyzed: 09/11/2024						
1,2,4-Trichlorobenzene	27.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	55.9	44-142	0.322	20	
1,2-Dichlorobenzene	26.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	54.6	22-115	2.37	20	
1,3-Dichlorobenzene	25.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	52.9	22-112	5.96	20	
1,4-Dichlorobenzene	29.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	59.8	13-112	0.941	20	
2,4,6-Trichlorophenol	36.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	74.6	37-144	3.84	20	
2,4-Dichlorophenol	35.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	73.1	39-135	3.13	20	
2,4-Dimethylphenol	36.7 ug/L	5.00	ug/L	48.5	<5.00 ug/L	75.6	32-120	3.59	20	
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	82.8	39-139	15.2	20	
2,4-Dinitrotoluene	48.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	100	10-191	2.05	20	
2,6-Dinitrotoluene	41.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	84.7	50-158	5.98	20	
2-Chloronaphthalene	29.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	60.3	60-120	15.1	20	
2-Chlorophenol	32.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	67.5	23-134	2.80	20	
2-Nitrophenol	39.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	80.9	29-182	2.75	20	
3,3'-Dichlorobenzidine	22.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	46.9	10-262	0.214	20	
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	96.9	10-181	11.9	20	
4-Bromophenyl phenyl ether	31.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	64.7	53-127	6.98	20	
4-Chlorophenyl phenyl ether	33.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	68.1	25-158	8.63	20	
4-Nitrophenol	<50.0 ug/L	50.0	ug/L	48.5	<50.0 ug/L	34.3	10-132	10.3	20	
Acenaphthene	34.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	70.7	47-145	8.42	20	
Acenaphthylene	34.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	71.5	33-145	7.69	20	



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 203 Wylderose Court Project Number: 24009604
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 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Matrix Spike Dup (BHI0383-MSD1)	Source: 24I0449-01			Prepared & Analyzed: 09/11/2024						
Acetophenone	31.4 ug/L	20.0	ug/L	48.5	<20.0 ug/L	64.7	0-200	0.800	20	
Anthracene	33.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	69.3	27-133	5.82	20	
Benzo (a) anthracene	38.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	78.4	33-143	5.27	20	
Benzo (a) pyrene	43.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	88.7	17-163	6.48	20	
Benzo (b) fluoranthene	54.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	111	24-159	12.5	20	
Benzo (g,h,i) perylene	26.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	53.8	10-219	8.28	20	
Benzo (k) fluoranthene	48.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	100	11-162	9.46	20	
bis (2-Chloroethoxy) methane	34.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	71.8	33-184	3.13	20	
bis (2-Chloroethyl) ether	34.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	71.1	12-158	4.19	20	
2,2'-Oxybis (1-chloropropane)	31.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	65.6	36-166	5.22	20	
bis (2-Ethylhexyl) phthalate	43.2 ug/L	10.0	ug/L	48.5	<10.0 ug/L	89.0	10-158	15.3	20	
Butyl benzyl phthalate	40.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	83.7	10-152	6.27	20	
Chrysene	37.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	76.5	17-169	2.43	20	
Dibenz (a,h) anthracene	27.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	55.9	10-227	9.56	20	
Diethyl phthalate	40.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	84.3	10-120	6.36	20	
Dimethyl phthalate	38.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	79.5	10-120	1.99	20	
Di-n-butyl phthalate	38.1 ug/L	10.0	ug/L	48.5	<10.0 ug/L	78.5	10-120	6.27	20	
Di-n-octyl phthalate	89.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	184	10-146	23.3	20	M, P
Fluoranthene	42.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	88.1	26-137	1.76	20	
Fluorene	36.6 ug/L	10.0	ug/L	48.5	<10.0 ug/L	75.5	59-121	10.6	20	
Hexachlorobenzene	31.3 ug/L	1.00	ug/L	48.5	<1.00 ug/L	64.4	10-152	7.36	20	
Hexachlorobutadiene	28.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	59.4	24-120	5.53	20	
Hexachlorocyclopentadiene	22.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	45.9	10-90	0.876	20	
Hexachloroethane	31.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	65.3	40-120	5.89	20	
Indeno (1,2,3-cd) pyrene	27.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	55.6	10-171	10.6	20	
Isophorone	20.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	42.7	21-196	7.00	20	
Naphthalene	26.8 ug/L	5.00	ug/L	48.5	<5.00 ug/L	55.2	21-133	1.69	20	
Nitrobenzene	41.0 ug/L	10.0	ug/L	48.5	<10.0 ug/L	84.5	35-180	0.237	20	
n-Nitrosodimethylamine	21.5 ug/L	10.0	ug/L	48.5	<10.0 ug/L	44.3	10-85	11.6	20	
n-Nitrosodi-n-propylamine	34.9 ug/L	10.0	ug/L	48.5	<10.0 ug/L	71.9	10-230	1.44	20	
n-Nitrosodiphenylamine	30.8 ug/L	10.0	ug/L	48.5	<10.0 ug/L	63.4	12-111	4.32	20	



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 Client Site I.D.: Wilderness WTP

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0383 - SW3510C/EPA600-MS

Matrix Spike Dup (BHI0383-MSD1)	Source: 24I0449-01			Prepared & Analyzed: 09/11/2024						
p-Chloro-m-cresol	38.4 ug/L	10.0	ug/L	48.5	<10.0 ug/L	79.1	10-127	4.11	20	
Pentachloronitrobenzene (quintozene)	<10.0 ug/L	10.0	ug/L		<10.0 ug/L		0-200		20	
Pentachlorophenol	28.0 ug/L	20.0	ug/L	48.5	<20.0 ug/L	57.8	14-176	8.67	20	
Phenanthrene	39.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	80.9	54-120	6.04	20	
Phenol	14.6 ug/L	10.0	ug/L	49.0	<10.0 ug/L	29.8	10-120	0.859	20	
Pyrene	37.3 ug/L	10.0	ug/L	48.5	<10.0 ug/L	76.7	52-120	3.68	20	
Pyridine	21.7 ug/L	10.0	ug/L	48.5	<10.0 ug/L	44.6	10-110	22.7	20	P

Surr: 2,4,6-Tribromophenol (Surr)	72.2		ug/L	97.1	ug/L	74.4	5-136			
Surr: 2-Fluorobiphenyl (Surr)	30.3		ug/L	48.5	ug/L	62.5	9-117			
Surr: 2-Fluorophenol (Surr)	36.4		ug/L	97.1	ug/L	37.5	5-60			
Surr: Nitrobenzene-d5 (Surr)	41.3		ug/L	48.5	ug/L	85.0	5-151			
Surr: Phenol-d5 (Surr)	26.3		ug/L	97.1	ug/L	27.1	5-60			
Surr: p-Terphenyl-d14 (Surr)	33.0		ug/L	48.5	ug/L	68.1	5-141			



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 Client Site I.D.: Wilderness WTP

Semivolatile Hydrocarbons by GC - Quality Control

Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch BHI0412 - SW3510C/EPA600-FID

Blank (BHI0412-BLK1)		Prepared: 09/11/2024 Analyzed: 09/12/2024								
TPH-Semi-Volatiles (ORO)	<1.0 mg/L	1.0	mg/L							
LCS (BHI0412-BS1)		Prepared: 09/11/2024 Analyzed: 09/12/2024								
TPH-Semi-Volatiles (ORO)	5.0 mg/L	1.0	mg/L	5.00	mg/L	99.1	70-130			

Batch BHI0414 - SW3510C/EPA600-FID

Blank (BHI0414-BLK1)		Prepared: 09/11/2024 Analyzed: 09/12/2024								
TPH-Semi-Volatiles (DRO)	<0.500 mg/L	0.500	mg/L							
<hr style="border-top: 1px dashed black;"/>										
Surr: n-Triacontane (Surr)	0.223		mg/L	0.250		89.3	50-125			
LCS (BHI0414-BS1)		Prepared: 09/11/2024 Analyzed: 09/12/2024								
TPH-Semi-Volatiles (DRO)	4.0 mg/L	0.500	mg/L	5.00	mg/L	80.6	70-130			
<hr style="border-top: 1px dashed black;"/>										
Surr: n-Triacontane (Surr)	0.229		mg/L	0.250	mg/L	91.8	50-125			

Certificate of Analysis

Final Report

Client Name:	APEX Companies, LLC. - Richmond VA 203 Wylderose Court Midlothian VA, 23113	Date Issued:	September 12, 2024 14:39
		Project Number:	24009604
		Purchase Order:	
Submitted To:	██████████		
Client Site I.D.:	Wilderness WTP		

Certified Analyses included in this Report

Analyte	Certifications
SW8015C in Non-Potable Water	
TPH-Semi-Volatiles (DRO)	VELAP,PADEP,NCDEQ,WVDEP
TPH-Semi-Volatiles (ORO)	VELAP,PADEP,WVDEP
SW8260D in Non-Potable Water	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP

Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Certified Analyses included in this Report

Analyte	Certifications
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
SW8270E in Non-Potable Water	
1,2,4,5-Tetrachlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,2,4-Trichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP

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Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
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 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Certified Analyses included in this Report

Analyte	Certifications
1,2-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,2-Diphenylhydrazine	NCDEQ,WVDEP,VELAP,PADEP
1,3-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,3-Dinitrobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,4-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1-Naphthylamine	NCDEQ,WVDEP,VELAP,PADEP
2,3,4,6-Tetrachlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4,5-Trichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4,6-Trichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dimethylphenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dinitrophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dinitrotoluene	NCDEQ,WVDEP,VELAP,PADEP
2,6-Dichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,6-Dinitrotoluene	NCDEQ,WVDEP,VELAP,PADEP
2-Chloronaphthalene	NCDEQ,WVDEP,VELAP,PADEP
2-Chlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2-Methylnaphthalene	NCDEQ,WVDEP,VELAP,PADEP
2-Naphthylamine	NCDEQ,WVDEP,VELAP,PADEP
2-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
2-Nitrophenol	NCDEQ,WVDEP,VELAP,PADEP
3,3'-Dichlorobenzidine	NCDEQ,WVDEP,VELAP,PADEP
3-Methylcholanthrene	NCDEQ,WVDEP,VELAP,PADEP
3-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
4,6-Dinitro-2-methylphenol	NCDEQ,WVDEP,VELAP,PADEP
4-Aminobiphenyl	NCDEQ,WVDEP,VELAP,PADEP
4-Bromophenyl phenyl ether	NCDEQ,WVDEP,VELAP,PADEP
4-Chloroaniline	NCDEQ,WVDEP,VELAP,PADEP
4-Chlorophenyl phenyl ether	NCDEQ,WVDEP,VELAP,PADEP
4-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
4-Nitrophenol	NCDEQ,WVDEP,VELAP,PADEP
7,12-Dimethylbenz (a) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Acenaphthene	NCDEQ,WVDEP,VELAP,PADEP
Acenaphthylene	NCDEQ,WVDEP,VELAP,PADEP
Acetophenone	NCDEQ,WVDEP,VELAP,PADEP
Aniline	NCDEQ,WVDEP,VELAP,PADEP
Anthracene	NCDEQ,WVDEP,VELAP,PADEP
Benzidine	NCDEQ,WVDEP,VELAP,PADEP

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 203 Wylderose Court Project Number: 24009604
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 Midlothian VA, 23113
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Certified Analyses included in this Report

Analyte	Certifications
Benzo (a) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (a) pyrene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (b) fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (g,h,i) perylene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (k) fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Benzoic acid	NCDEQ,WVDEP,VELAP,PADEP
Benzyl alcohol	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Chloroethoxy) methane	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Chloroethyl) ether	NCDEQ,WVDEP,VELAP,PADEP
2,2'-Oxybis (1-chloropropane)	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Ethylhexyl) phthalate	NCDEQ,WVDEP,VELAP,PADEP
Butyl benzyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Chrysene	NCDEQ,WVDEP,VELAP,PADEP
Dibenz (a,h) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Dibenz (a,j) acridine	NCDEQ,WVDEP,VELAP,PADEP
Dibenzofuran	NCDEQ,WVDEP,VELAP,PADEP
Diethyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Dimethyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Di-n-butyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Di-n-octyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Diphenylamine	NCDEQ,WVDEP,VELAP,PADEP
Ethyl methanesulfonate	NCDEQ,WVDEP,VELAP,PADEP
Fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Fluorene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorobutadiene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorocyclopentadiene	NCDEQ,WVDEP,VELAP,PADEP
Hexachloroethane	NCDEQ,WVDEP,VELAP,PADEP
Indeno (1,2,3-cd) pyrene	NCDEQ,WVDEP,VELAP,PADEP
Isophorone	NCDEQ,WVDEP,VELAP,PADEP
m+p-Cresols	NCDEQ,WVDEP,VELAP,PADEP
Methyl methanesulfonate	NCDEQ,WVDEP,VELAP,PADEP
Naphthalene	NCDEQ,WVDEP,VELAP,PADEP
Nitrobenzene	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodimethylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodi-n-butylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodi-n-propylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodiphenylamine	NCDEQ,WVDEP,VELAP,PADEP



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Purchase Order:
 Midlothian VA, 23113
 Submitted To: XXXXXXXXXX
 Client Site I.D.: Wilderness WTP

Certified Analyses included in this Report

Analyte	Certifications
n-Nitrosopiperidine	NCDEQ,WVDEP,VELAP,PADEP
o+m+p-Cresols	NCDEQ,WVDEP,VELAP
o-Cresol	NCDEQ,WVDEP,VELAP,PADEP
p-(Dimethylamino) azobenzene	NCDEQ,WVDEP,VELAP,PADEP
p-Chloro-m-cresol	NCDEQ,WVDEP,VELAP,PADEP
Pentachloronitrobenzene (quintozene)	NCDEQ,WVDEP,VELAP,PADEP
Pentachlorophenol	NCDEQ,WVDEP,VELAP,PADEP
Phenacetin	NCDEQ,WVDEP,VELAP,PADEP
Phenanthrene	NCDEQ,WVDEP,VELAP,PADEP
Phenol	NCDEQ,WVDEP,VELAP,PADEP
Pronamide	NCDEQ,WVDEP,VELAP,PADEP
Pyrene	NCDEQ,WVDEP,VELAP,PADEP
Pyridine	NCDEQ,WVDEP,VELAP,PADEP

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2025
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	09/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024



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203 Wylderose Court Project Number: 24009604
Midlothian VA, 23113 Purchase Order:
Submitted To: [REDACTED]
Client Site I.D.: Wilderness WTP

Summary of Data Qualifiers

- C Continuing calibration verification response for this analyte is outside specifications.
- L LCS recovery is outside of established acceptance limits
- M Matrix spike recovery is outside established acceptance limits
- P Duplicate analysis does not meet the acceptance criteria for precision
- RPD Relative Percent Difference
- Qual Qualifiers
- RE Denotes sample was re-analyzed
- D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.
- TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.
- PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.



Apex Companies, LLC
 203 Wylderose Court
 Midlothian, VA 23113
 (804) 897-2718

CHAIN OF CUSTODY RECORD

JOB NO.		JOB NAME				PROJECT MANAGER		PARAMETERS						TURN - AROUND TIME						
24009604		Wilderness WTP				[Redacted]		NO. OF CONTAINERS VOCs 8260 SVOCs 8270 TPH DRO 8215 TPH DRO 8015							2-day					
SAMPLER(S): (Signature(s))		DATE		TIME	COMP.	GRAB	MATRIX	PRES.	STATION / LOCATION							REMARKS				
[Redacted]		8/21/24		17:35		X	W	4°C/Hel	Trip Blank											
[Redacted]		9/9/24		12:00		X	W	4°C/Hel	Wet Well #1											
[Redacted]		9/9/24		12:30		X	W	4°C/Hel	Wet Well #2											
APEX-Richmond 2410426 Rapidan WTP Wilderness Recd: 09/09/2024 Due: 09/12/2024 <small>v130325002</small>																				
<i>ice</i> <i>no seal</i> <i>#271</i> Observed Temp °C: 8.8 Correction Factor °C: 0.0 Corrected Temp °C: 8.8																				
TOTALS											12	3	2	2	2					
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Received by: (Signature)												
① [Redacted]		9/9/24		② [Redacted]				③ [Redacted]						④ [Redacted]						
(Printed)		17:02		(Printed)				(Printed)						(Printed)						
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Remarks														
⑤ [Redacted]				⑥ [Redacted]		DEQ state lead														
(Printed)				(Printed)																

Distribution: WHITE => original (accompanies samples; returned with results) : YELLOW => sampler's copy

1 of 1 pages



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Certificate of Analysis

Final Report

Client Name: APEX Companies, LLC. - Richmond VA Date Issued: September 12, 2024 14:39
 203 Wylderose Court Project Number: 24009604
 Midlothian VA, 23113 Purchase Order:
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Sample Conditions Checklist

Samples Received at:	8.80°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK 175	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

Samples logged for the following day due to the samples arriving after 1500, [redacted] approved at drop off. HEG 9/11/24 1001

Only 1L received for both DRO and ORO; split volume for both tests per [redacted] by phone (AHB 9/11/24 14.03)